

Catalogue

Summary

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Build and regenerate
for the well-being
of future generations.

The company



OUR HISTORY, THE ORIGINS OF OUR FUTURE

The company was founded in 1909 as a miners' cooperative, with the aim of creating opportunities for employment in the area, in a challenging period characterised by migration, exploiting the mineral deposits of Scaglia Rossa Trentina. The company is currently based in the area of the first mine, which dates right back to 1909.

At the time, Santa Giustina Lake – an artificial body of water created at the beginning of the 1950 after construction of the dam – did not yet exist, and the area was well served by the railway and therefore ideal in terms of logistics.

The original name, Consorzio Anaune Produzione Cementi Tassullo, was chosen specifically to stress the bond with the village of Tassullo.

In the period immediately following the Second World War, Tassullo became a joint stock company, thanks to growing demand for building products and post-war reconstruction. The company expanded activity, building new furnaces to bake the Natural Hydraulic Lime and acquiring new quarries.

The 1970s also saw the acquisition of the Società Anauniense Miniera San Romedio, which originally mined black schist, a particular form of sedimentary rock that is rich in aquatic fossil deposits and is a source of ichthyol, a substance with considerable antiseptic properties. The rising popularity of penicillin and other pharmaceutical products had caused a fall in the demand for ichthyol, and the mine was therefore converted to allow extraction of Scaglia Rossa Trentina, a highly desirable marl with a characteristic perfect balance of clay and limestone.

The first industrial premixing plant for the production of plaster and mortar for the building sector was also constructed in the 1970s.

At the beginning of the 2000s, the company invested in a research project that confirmed the geological uniqueness of the old San Romedio Mine site, which lies above hundreds of hectares of the purest Dolomite rock. This marked the beginning of the deep extraction of this uncontaminated rock that, mixed as an inert substance with Natural Hydraulic Lime, characterised the high-performance

range of Tassullo products. Since 2013, in line with its brand values, the company has played a lead role in a unique project for the regeneration of spaces; Dolomite rock extraction is in fact programmed in light of circular economy, and the spaces created from mining are transformed into highly sustainable storage areas. This has led to significant collaboration projects with other companies, who use the underground cells as ideal spaces to store their products, ensuring the saving of energy and land and creating tangible benefits for the environment.

The period of economic crisis hit the Tassullo group heavily and had a profound influence on the story of the company.

2018 brought new life to the company, with innovative development projects in collaboration with universities and research centres, following the acquisition of the company by a solid group of investors, with the majority shareholder backed by more than 60 years' experience in the building sector. As of 2023, the brand evolution leads to the strengthening of the Tassullo brand in the market.



SOME OF THE FOUNDING PARTNERS
OF THE CONSORZIO ANAUNE
PRODUZIONE CEMENTI TASSULLO.

A NEW VISION DRIVES THE EVOLUTION







E
malte
all'applic
Resisten
Naturliches hydraulisch
arbeitbarkeit, sch
isch aufzuf
mischungen
ungesund

OUR EXCELLENCE, NATURAL HYDRAULIC LIME NHL 5

For over a century, the Tassullo plants have been producing certified Natural Hydraulic Lime NHL 5. The entire production process takes place in a radius of only 8 km, in a green Trentino valley, and the company handles all of the processes directly, from extraction from its own mining sites to processing.

Scaglia Rossa Trentina, a precious marl that can only be found in certain areas of the region, is used to produce a natural binder with unique characteristics, ideal in both bioconstruction and architectural restoration, as well as in

high-quality building, thanks to its complete compatibility with binders and other materials used in the past.

The porosity of Natural Hydraulic Lime NHL 5 also guarantees an elevated diffusion of water vapour, renders the surface breathable, allows any water absorbed to drain away and manages humidity in the area it is placed in, avoiding the formation of harmful condensation and mould. It also has a unique natural capacity to increase its mechanical resistance over time, and is particularly resistant to the elements, even in proximity to the sea.

The move to blend Natural Hydraulic Lime with extremely pure **Dolomite** rock aggregates, extracted from the heart of the mountain at a depth of 200 metres, allows Tassullo to develop products that not only offer high performance, but which also respect people and the environment.

Mechanical resistance and over time, rapid application and elevated breathability are just some of the characteristics of the range of products made for structural consolidation, high-quality restoration projects, living comfort and sustainable construction.

OUR EXPERTISE, AT THE SERVICE OF WORKSITES

WHAT WE DO

We design and produce integrated systems and products for the national and international market for building and high-quality restoration.

Our internal Research and Development laboratory develops solutions to render the environments in which we leave healthy, protecting us from earthquakes and the climate, and preserving the history and artistic quality of architectural heritage over time.

THE PRODUCT LINES

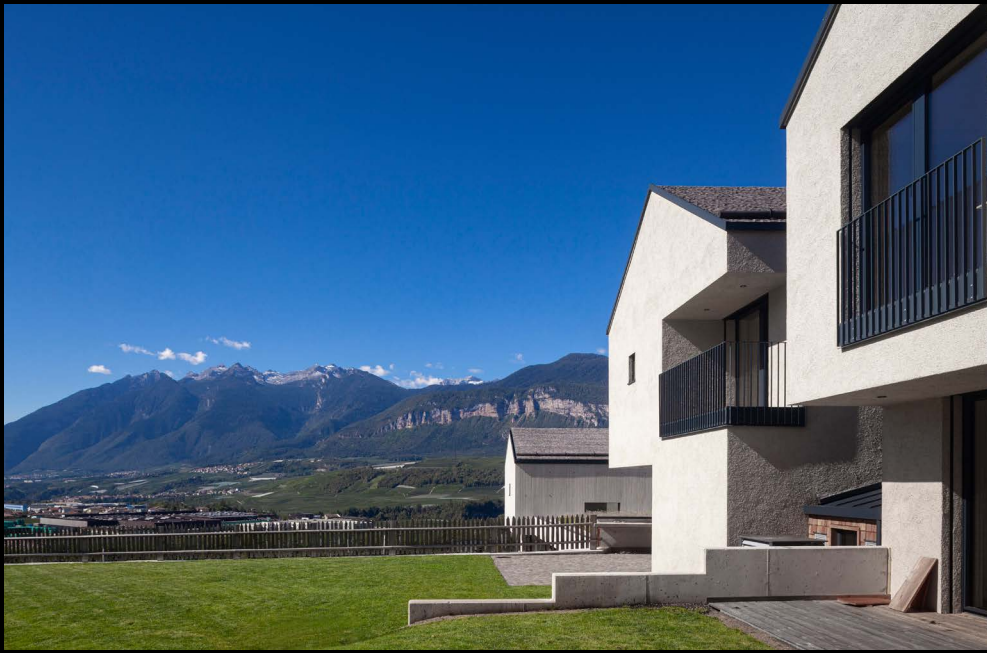
Our technical proposal is divided into product lines, subdivided by areas of intervention: dehumidification, structural consolidation, interior and exterior finishes, historical-artistic restoration, wall and floor applications, both in traditional and green building and restoration.

KNOW-HOW

Our team is available to provide advice to professionals in the various stages of design and realisation of works on site. It is also possible to request specific diagnostic analyses in order to correctly plan a conservation intervention, assess the state of deterioration of masonry and/or building safety.



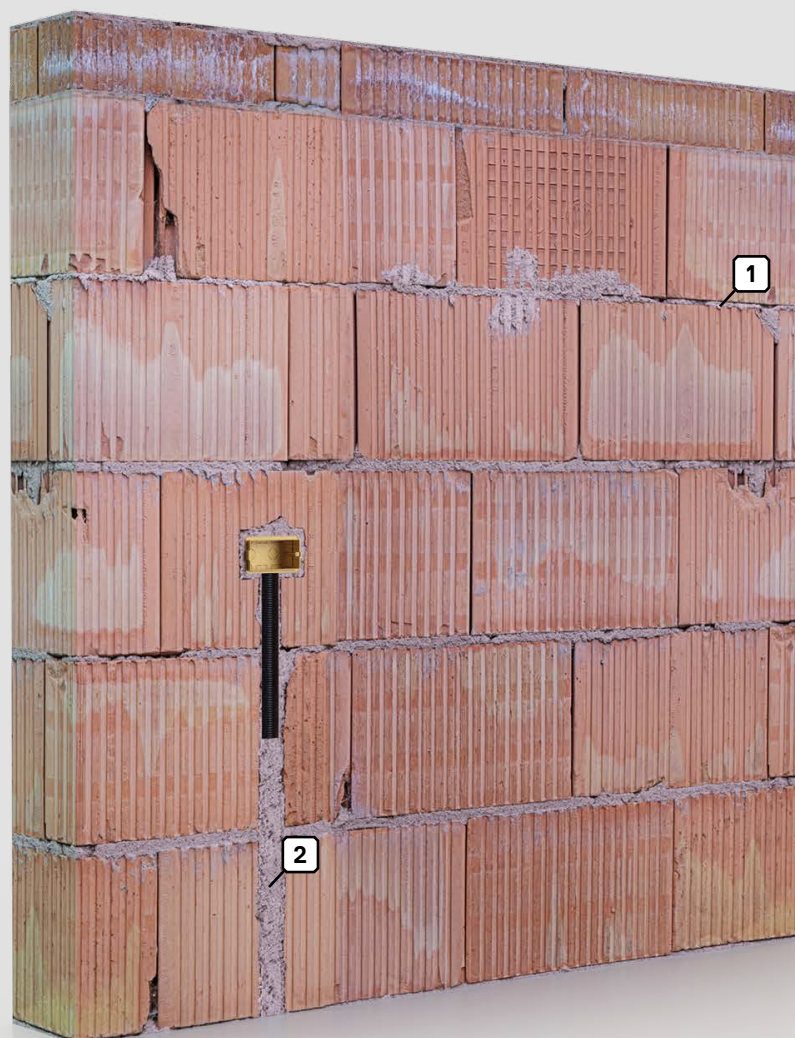




The ultimate expression
of Tassullo performance.

The systems

2



DESCRIPTION

Bedding system for masonry of any kind with products containing natural hydraulic lime NHL 5. The quality of Tassullo bedding mortars, available in a range of variants and certified for structural use, guarantees the creation of load-bearing and partition walls with excellent resistance, durability and breathability. The Build System is suitable for a range of interventions.

SYSTEM FEATURES

- High workability
- High breathability
- Easy to apply
- With natural hydraulic lime NHL 5



COMPONENTS

1	BEDDING MORTAR	1A T 200	Highly workable medium mortar with natural hydraulic lime NHL 5	
		1B T 300	Highly workable coarse mortar with natural hydraulic lime NHL 5	
		1C ECO BUILD	Natural hydraulic lime NHL 5 bedding mortar	
		1D T MIM	Thermal insulating mortar for block beds	
		1E T BLOCK	Mortar for bedding and exposed pointing of concrete blocks	
		1F T SPAN	Mortar/skim plaster for calcium silicate or concrete block masonry	
2	FILLING MORTAR	T FLASH	Rapid mortar for sealing chasing and holes with natural hydraulic lime NHL 5	

Are you constructing a building in traditional masonry? T 200 / T 300 → Traditional-type blocks	Are you working in the restoration or bioconstruction field? ECO BUILD → 100% Natural hydraulic lime NHL 5	Are you using porous or thermal insulating bricks? T MIM → Low thermal conductivity	Do you want to apply exposed concrete blocks? T BLOCK → Specifically for exposed concrete blocks	Do you want to apply cellular concrete blocks? T SPAN → Specifically for cellular concrete blocks
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APPLICATION PHASES

PHASE 1 Preparation of the surface for application Prepare the masonry surface by creating an initial base that is solid, clean and without any uneven or loose parts.	1 cm thick. Correctly position the block and apply slight pressure.	PHASE 4 Filling chasing Once systems have been placed in the masonry, apply T FLASH to close the chases and fix the system components in place.
PHASE 2 Laying of the first row of blocks Apply a layer of bedding mortar approximately	PHASE 3 Completion of the masonry Repeat the steps in phase 2 until the desired height is reached	

TECHNICAL DATA

Component	Name	Packaging	* Yield	U.M.	Recommended Thickness (cm)	** Incidence (kg/m ²)	μ	λ (W/mxK)	Technical data
1A	T 200	Bag	12-35	kg/m ²	1	27	15/35	1.11	page 178
1B	T 300	Bag	12-35	kg/m ²	1	27	15/35	1.11	page 178
1C	ECO BUILD	Bag	12-35	kg/m ²	1	27	15/35	1.11	page 177
1D	T MIM	Bag	15-18	kg/m ²	1	15	5/20	0.33	page 179
1E	T BLOCK	Bag	10-20	kg/m ²	1	10-20	15/35	1.11	page 179
1F	T SPAN	Bag	3-7	kg/m ²	0.2	3-7	15/35	0.82	page 180
2	T FLASH	Bag	0.7	l/kg	-	-	14	0.61	page 180

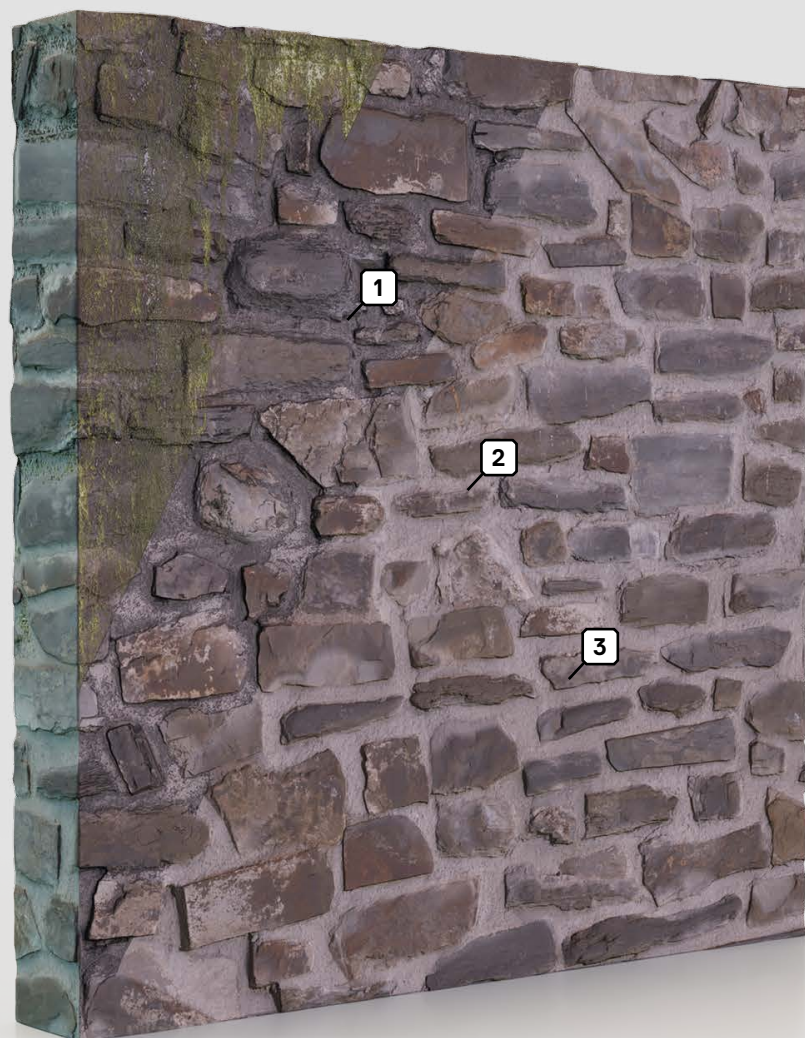
* The value of the yield and recommended thickness depends on the type of bedded block.

** Incidence for the products T 200, T 300, ECO BUILD and T MIM is calculated for a 34x24x30 cm block.

TECHNICAL NOTES: • In the case of highly absorbent blocks, dampen the surfaces that will come into contact with the bedding mortar in order to avoid the mixing water from being lost too quickly.

EXPOSED MASONRY

CIVIL CONSTRUCTION



DESCRIPTION

System for the bedding and repointing of exposed brick, stone or mixed masonry with products containing natural hydraulic lime NHL 5. The quality of Tassullo products and the range of mortars available in various colours guarantees the creation of long-lasting constructions with specific colour yield, ideal for both new construction and for the restoration of existing constructions.

SYSTEM FEATURES

- High workability
- High breathability
- Easy to apply
- Compatible with period masonry
- With natural hydraulic lime NHL 5



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas
2	POINTING MORTAR	2A T 20V	Exposed mortar in natural hydraulic lime NHL 5
		2B T 20V COLOR	Coloured exposed mortar in lime
3	PROTECTIVE TREATMENT	LITHOS	Water-based breathable protective treatment

Are you working in the restoration or bioconstruction field?

T 20V

→ 100% Natural hydraulic lime NHL 5

Do you need a coloured mortar?

T 20V COLOR

→ Available in 4 colours
(Asti • Puglia
Monferrato • Romagna)

APPLICATION PHASES: bedding

PHASE 1

Preparation of the surface for application

Prepare the masonry surface by creating an initial base that is solid, clean and without any uneven or loose parts.

PHASE 2

Laying of the first row of blocks

Apply a layer of bedding mortar approximately 1 cm thick. Place the block in the correct position, pressing vertically. Remove excess bedding mortar and point as desired.

PHASE 3

Completion of the masonry

Repeat the steps in phase 2 until the desired height is reached.

APPLICATION PHASES: pointing

PHASE 1

Preparation of the surface and scarification of pointing

Remove any existing plaster or finishing. Remove the bedding mortar to the planned depth.

PHASE 2

Cleaning the surface

Remove any organic patina from the surface with the application of the specific detergent NOVAPIETRA BIO.

PHASE 3

Pointing

Apply the chosen product to restore mortar joints. Use appropriate tools to ensure that the mortar joints are completely filled in width and depth. Work the mortar following bonding in order to obtain the desired visual effect.

PHASE 4

Protecting surfaces

Apply the specific protective product LITHOS on the dry and properly cleaned surface.

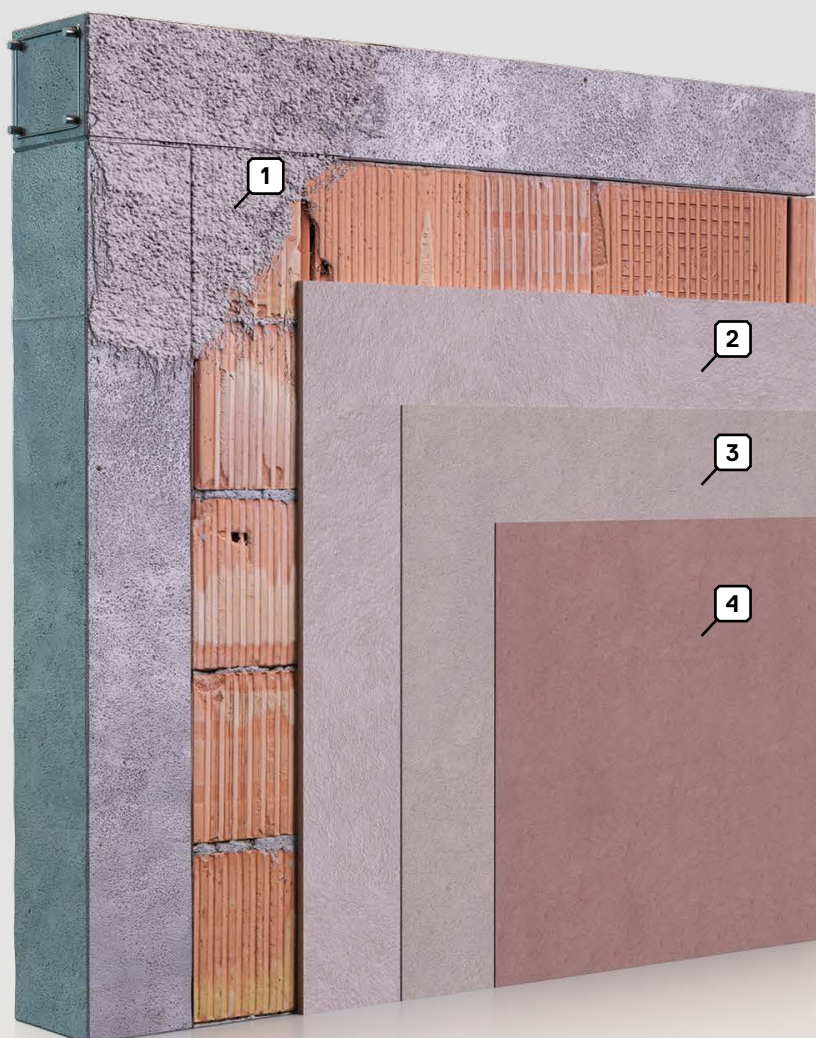
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Solvent	pH	Water absorption reduction	Technical data
1	NOVAPIETRA BIO	Canister	4-8	m ² /l	Water	7.5 ± 0.5	0 %	page 163
2A	T 20V	Bag	10-30	kg/m ²	-	-	0 %	page 181
2B	T 20V COLOR	Bag	10-30	kg/m ²	-	-	0 %	page 181
3	LITHOS	Canister	5-10	m ² /l	Water	-	72 %	page 164

TECHNICAL NOTES: • In the case of highly absorbent blocks, dampen the surfaces that will come into contact with the bedding mortar in order to avoid the mixing water from being lost too quickly. • When pointing exposed facades, PHASE 2 can be carried out, as an alternative or in addition to the product NOVAPIETRA BIO, with a specific detergent chosen on the basis of the type of stone and the level of dirt. • It is always necessary to apply the detergent NOVAPIETRA BIO in the presence of organic patina on the application surface.

PLASTER

CIVIL CONSTRUCTION



DESCRIPTION

System for the covering of walls, with products containing natural hydraulic lime NHL 5, suitable for any type of masonry and characterised by high breathability and chemical inertia. The various combinations of Tassullo products allow compatibility, performance, weight, resistance to the elements and containment of cracks to be optimised.

SYSTEM FEATURES

- High workability
- High breathability
- Easy to apply
- With natural hydraulic lime NHL 5



COMPONENTS

1	ROUGH BASE	T RIN	Multi-purpose medium primer/coupling agent with natural hydraulic lime NHL 5	
		2A INTOCALX	Highly workable base-coat plaster with natural hydraulic lime NHL 5	
		2B INTOCALX FIBRO	Fibre-reinforced base-coat plaster with natural hydraulic lime NHL 5	
		2C INTOCALX LIGHT	Fibre-reinforced lightweight base-coat plaster with natural hydraulic lime NHL 5	
2	BASE-COAT PLASTER	2D INTOCALX IDRO	Hydrophobic base-coat plaster with natural hydraulic lime NHL 5	
3	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	
4	FINISH	CALCE FINE	Fine mineral finish in natural hydraulic lime NHL 5	

Are you looking for a breathable plaster? INTOCALX → Elevated breathability	Are you applying to an uneven surface? INTOCALX FIBRO → Fibre reinforced	Are you looking for a high-yield plaster? INTOCALX LIGHT → Lightweight	Do you need to apply plaster externally? INTOCALX IDRO → Hydrophobic
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APPLICATION PHASES

PHASE 1 Preparation of the surface Clean the application surfaces and remove any portions that are decohesive, crumbly or not solidly fixed to the surface.	PHASE 3 Spreading the main body of plaster Manually or mechanically apply the main body of plaster, then use a straight edge and float as required.	PHASE 5 Application of the finish Apply CALCE FINE with techniques and tools suited to the level of finish required.
PHASE 2 Application of the rough base Apply T RIN to completely cover the surface, leaving the surface rough, without smoothing.	PHASE 4 Application of the skim plaster Apply T A01 with a spatula.	

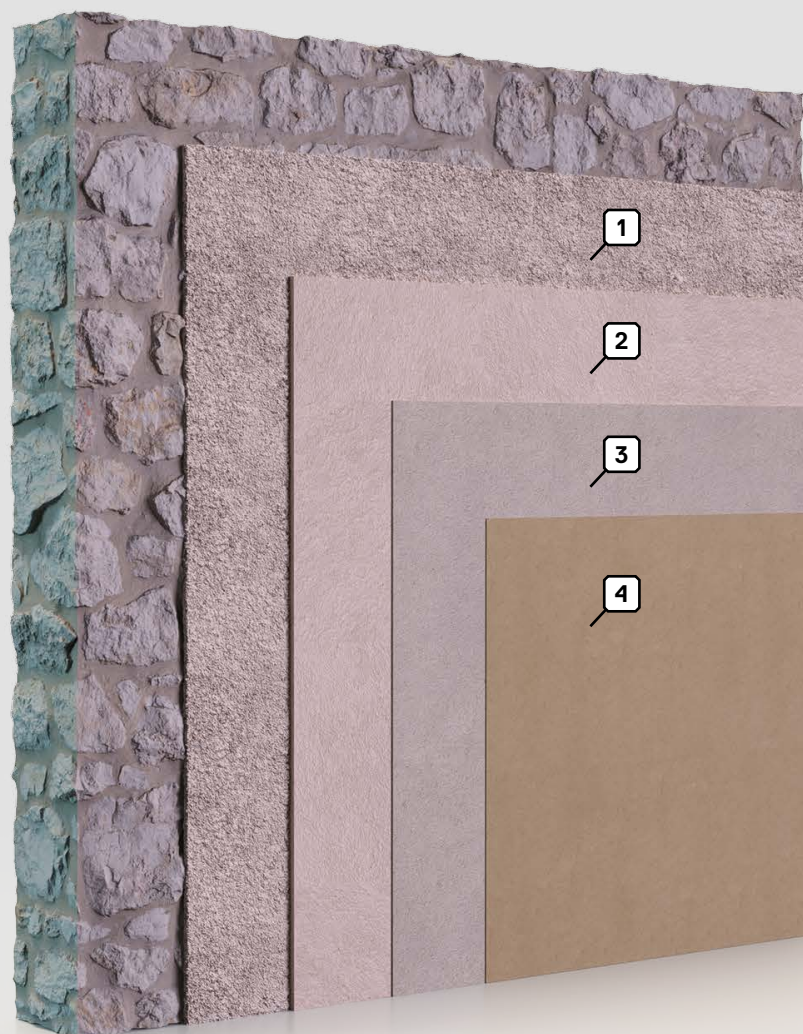
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1	T RIN	Bag	4-6	kg/m ²	-	-	-	-	0.61	page 173
2A	INTOCALX	Bag	15	kg/m ² xcm	1.5	22	14	0.21	0.61	page 171
2B	INTOCALX FIBRO	Bag	15	kg/m ² xcm	1.5	22	14	0.21	0.61	page 171
2C	INTOCALX LIGHT	Bag	12	kg/m ² xcm	1.5	18	11	0.17	0.45	page 172
2D	INTOCALX IDRO	Bag	15	kg/m ² xcm	1.5	22	14	0.21	0.61	page 172
3	T A01	Bag	3-4	kg/m ²	0.2	3	11	0.02	0.61	page 184
4	CALCE FINE	Bag	3-4	kg/m ²	0.2	3	11	0.02	-	page 143

TECHNICAL NOTES: • PHASE 2 is to be carried out exclusively on compact and poorly absorbent surfaces that may limit adhesion of the base-coat plaster or to regulate the absorption of surfaces and improve the drying of the successive layer of base-coat plaster. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • PHASE 5 can be carried out with other products from the TASSULLO CREA line as an alternative to CALCE FINE.

RESTORATION PLASTER

CIVIL CONSTRUCTION



DESCRIPTION

System for the creation of plasters suitable for restoring period constructions. The use of Tassullo products, formulated with natural hydraulic lime NHL 5, allows for the creation of plasters that respect the typical features of period buildings, both in terms of chemical, physical and mechanical compatibility and in terms of visual results. The various combinations of products render the Restoration Plaster System suitable for a wide range of needs; machine application, traditional application techniques, creation of particular visual effects with specific aggregates.

SYSTEM FEATURES

- High breathability
- Utmost compatibility with historical construction
- In line with green building and restoration principles
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	ROUGH BASE	OPUS RIN	Primer/coupling agent in natural hydraulic lime NHL 5	
		2A OPUS	Lime plaster in natural hydraulic lime NHL 5	
2	BASE-COAT PLASTER	2B OPUS MEC	Base-coat plaster in natural hydraulic lime NHL 5 for machine application	
		2C OPUS COCCIO	Lime plaster with crushed pottery and natural hydraulic lime NHL 5	
3	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	
4	FINISH	CALCE FINE	Fine mineral finish in natural hydraulic lime NHL 5	

Do you need to plaster small surfaces with high thicknesses?

OPUS

→ Manual application

Do you need to plaster large surfaces with a plastering machine?

OPUS MEC

→ Machine applicable

Do you want to use a specific traditional technique?

OPUS COCCIO

→ Crushed pottery aggregates

APPLICATION PHASES

PHASE 1

Preparation of the surface

Clean the application surfaces and remove any portions that are decohesive, crumbly or not solidly fixed to the surface.

PHASE 2

Application of the rough base

Apply OPUS RIN to completely cover the surface, leaving the surface rough, without smoothing.

PHASE 3

Spreading the main body of plaster

Manually or mechanically apply the main body of plaster, then use a straight edge and float as required.

PHASE 4

Application of the skim plaster

Apply T A01 with a spatula.

PHASE 5

Application of the finish

Apply CALCE FINE with techniques and tools suited to the level of finish required.

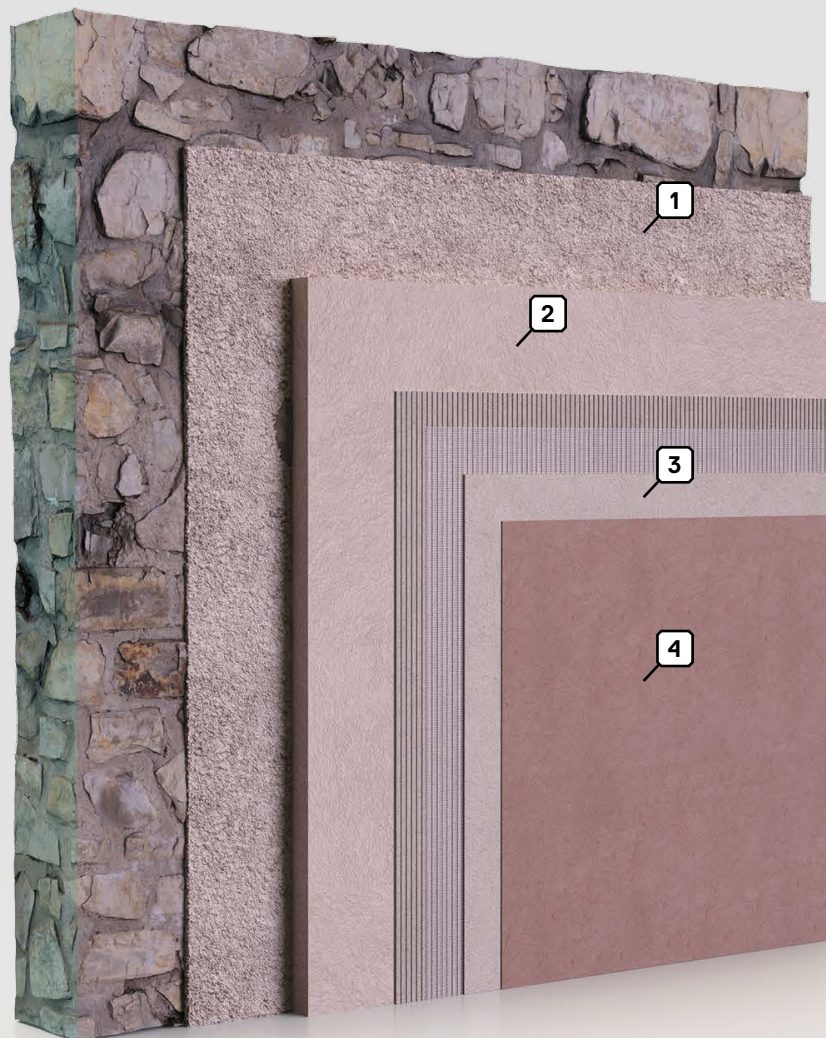
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1	OPUS RIN	Bag	4-6	kg/m ²	-	-	-	-	0.61	page 176
2A	OPUS	Bag	17	kg/m ² xcm	1.5	25.5	12	0.18	1.11	page 175
2B	OPUS MEC	Bag	15	kg/m ² xcm	1.5	22.5	12	0.18	0.61	page 176
2C	OPUS COCCIO	Bag	9-10	kg/m ² xcm	1.5	22.5	12	0.18	-	page 175
	COCCIO GRANULATO	Bag	5-6	kg/m ² xcm						
3	T A01	Bag	3-4	kg/m ²	0.2	3	11	0.02	0.61	page 184
4	CALCE FINE	Bag	3-4	kg/m ²	0.2	3	11	0.02	-	page 143

TECHNICAL NOTES: • PHASE 2 is to be carried out exclusively on compact and poorly absorbent surfaces that may limit adhesion of the base-coat plaster or to regulate the absorption of surfaces and improve the drying of the successive layer of base-coat plaster. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • The products OPUS and OPUS COCCIO allow the surface of the masonry to be clad. • Indoors, OPUS COCCIO can be suitably floated and sponged in order to be left exposed. • PHASE 5 can be carried out with other products from the TASSULLO CREA line as an alternative to CALCE FINE.

THERMAL PLASTER

CIVIL CONSTRUCTION



DESCRIPTION

System for the creation of mineral thermal plasters with natural hydraulic lime NHL 5. The use of Tassullo products allows for the creation of complete layering, which offers elevated insulation, excellent breathability, compatibility with masonry and resistance against the elements. The choice of the two types of thermal insulating plaster means that the system is suitable for varying requirements in terms of thickness and thermal transmittance and renders it ideal for both new constructions as well as prestigious restoration works and recovery works.

SYSTEM FEATURES

- High breathability
- Highly adhesive
- Rapid application
- Compatible with construction techniques of the past
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	ROUGH BASE	OPUS RIN	Primer/coupling agent in natural hydraulic lime NHL 5	
2	BASE-COAT PLASTER	2A VOLCALITE	Thermal insulating plaster in natural hydraulic lime NHL 5	
		2B VOLCALITE AIR PLUS	Thermal insulating plaster in aerogel and natural hydraulic lime NHL 5	
3	REINFORCED SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	
		RETE 160	Alkaline-resistant glass-fibre mesh for reinforced skim plaster	
4	FINISH	CALCE FINE	Fine mineral finish in natural hydraulic lime NHL 5	

Can you apply elevated thicknesses?

VOLCALITE

→ Insulating thermal plaster with perlite aggregates

Can you only apply reduced thicknesses?

VOLCALITE AIR PLUS

→ Super-insulating thermal plaster with aerogel aggregates

APPLICATION PHASES

PHASE 1

Preparation of the surface

Clean the application surfaces and remove any portions that are decohesive, crumbly or not solidly fixed to the surface.

PHASE 2

Application of the rough base

Apply OPUS RIN to completely cover the surface, leaving the surface rough, without smoothing.

PHASE 3

Application of the thermal plaster

Apply the thermal plaster manually or with a machine, respecting the thicknesses and indications provided in the product technical data sheet.

PHASE 4

Application of the reinforced skim plaster

Apply the first layer of skim plaster with a toothed spatula to a thickness of approxi-

mately 4 mm. Position RETE 160, applying slight pressure with the spatula to incorporate it into the product while it is still fresh. Apply the second coat of skim plaster for complete coverage.

PHASE 5

Application of the finish

Apply CALCE FINE with techniques and tools suited to the level of finish required.

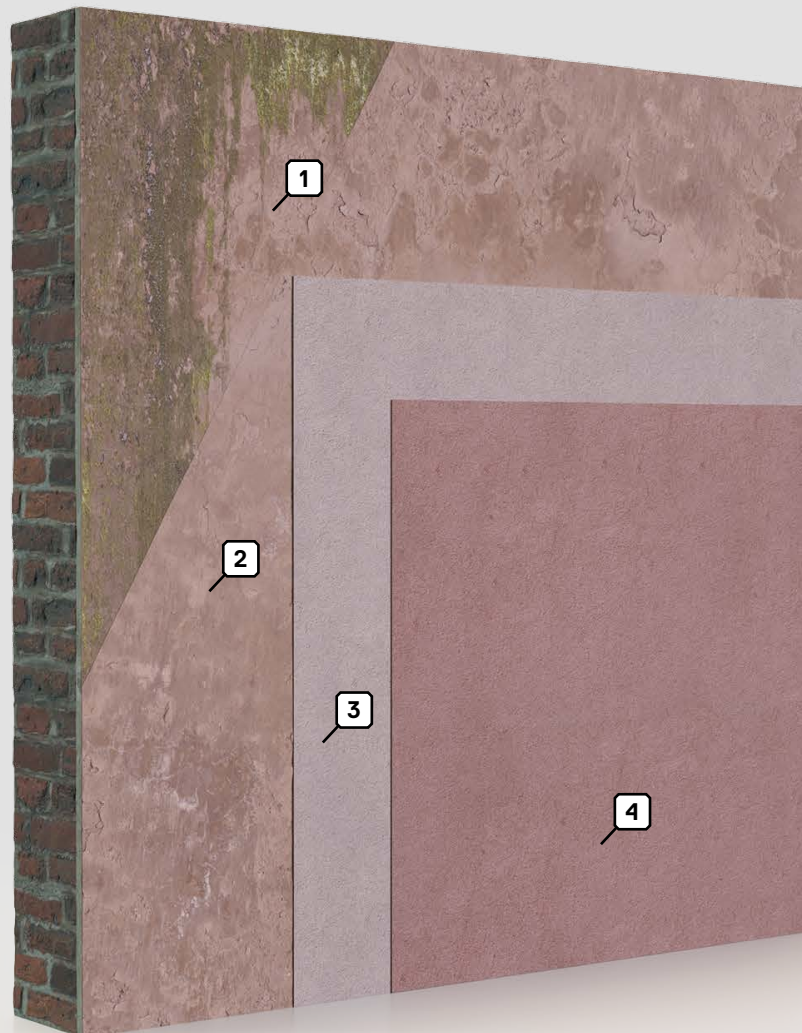
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1	OPUS RIN	Bag	4-6	kg/m ²	-	-	-	-	0.61	page 176
2A	VOLCALITE	Bag	5-7	kg/m ² xcm	2	10	6	0.12	0.07	page 174
2B	VOLCALITE AIR PLUS	Bag	2	kg/m ² xcm	2	4	6	0.12	0.029	page 174
3	T A01	Bag	3-4	kg/m ²	0.2	3	11	0.02	0.61	page 184
	RETE 160	Roll	1.1	m ² /m ²	-	-	-	-	-	page 183
4	CALCE FINE	Bag	3-4	kg/m ²	0.2	3	11	0.02	-	page 143

TECHNICAL NOTES: • PHASE 2 is to be carried out exclusively on compact and poorly absorbent surfaces that may limit adhesion of the insulating plaster or to regulate the absorption of surfaces and improve the drying of the successive layer of insulating plaster. • PHASE 4 is to be carried out with a reinforcement mesh only in the event of application of thicknesses of more than 6 cm or in the event that VOLCALITE AIR PLUS is used as an insulating plaster; in other cases, it is recommended but not obligatory. • According to the level of finish required, the product T A01 can be substituted with the medium finish T A02 with a maximum grading of 2 mm. • PHASE 5 can be carried out with other products from the TASSULLO CREA line as an alternative to CALCE FINE.

SKIM PLASTER

CIVIL CONSTRUCTION



DESCRIPTION

System for the skim plastering of surfaces with products containing natural hydraulic lime NHL 5. The use of Tassullo products allows for the creation of durable skim plasters that adhere in a stable manner to surfaces of any kind, including existing plasters and finishes. The chemical and physical characteristics of the products render the Skim Plaster System suitable for both new constructions and restoration works.

SYSTEM FEATURES

- High workability
- High breathability
- Highly adhesive
- Easy to apply
- With natural hydraulic lime NHL 5



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas
2	CONSOLIDATING TREATMENT	T PRIMER	Highly penetrating fixing consolidating treatment in aqueous microemulsion
3	SKIM PLASTER	3A T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm
		3B T A FIBRO	Fibre-reinforced skim plaster in natural hydraulic lime NHL 5
		3C EXTRA RASO	Universal lime-based mineral skim plaster
4	FINISH	TASSULLO CREA LINE	Highly breathable mineral finishes

Do you need to skim plaster a surface free of cracks?

T A01

→ Traditional skim plaster

Do you need to skim plaster a cracked surface?

T A FIBRO

→ Fibre reinforced

Do you need to skim plaster an uneven surface?

EXTRA RASO

→ Applicable in thicknesses of between 3 and 30 mm

APPLICATION PHASES

PHASE 1

Preparation of the surface

Clean the application surfaces and remove any portions that are decohesive, crumbly or not solidly fixed to the surface.

PHASE 2

Removal of organic patina and consolidation

Apply the detergent NOVAPIETRA BIO to remove any organic patina present on the surface. Apply the consolidating treatment

T PRIMER to improve the cohesion of the application surface and to uniform the water absorption of the surface.

PHASE 3

Application of the skim plaster

Apply the skim plaster with instruments and techniques suited to obtaining the level of surface finishing desired.

PHASE 4

Creation of the finish

It is recommended to use mineral finishes from the TASSULLO CREA line.

TECHNICAL DATA

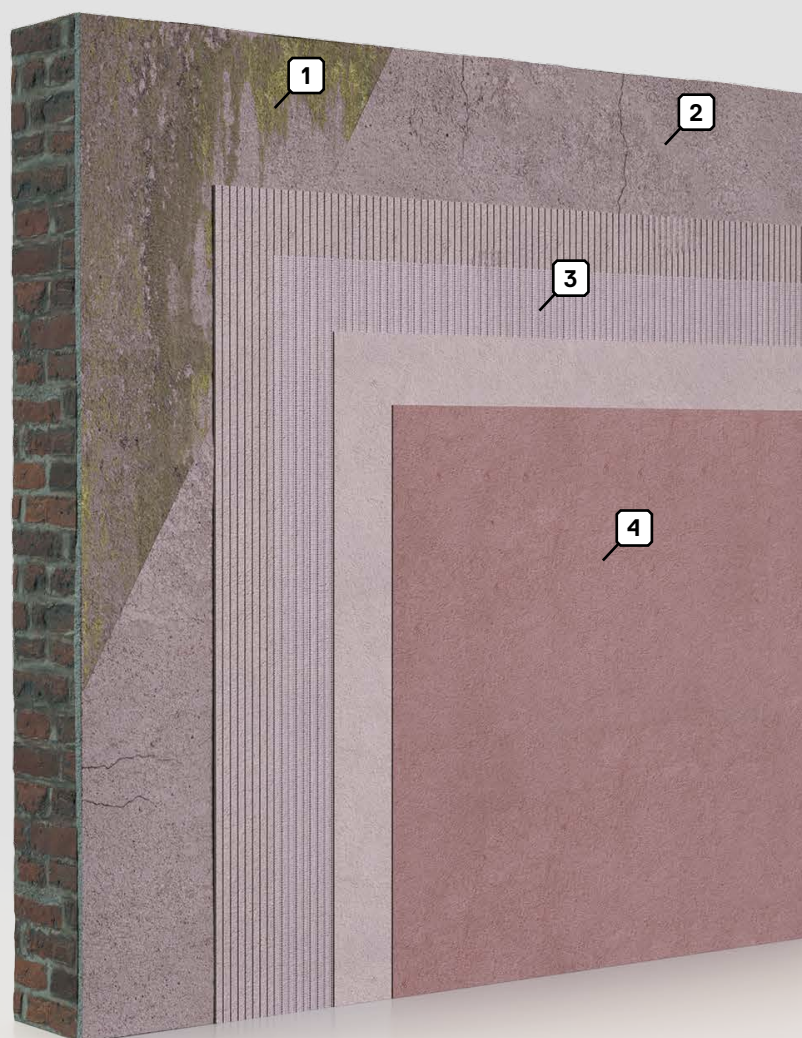
Component	Name	Packaging	Yield	U.M.	Solvent	Thickness (cm)	μ	Sd (m)	Water absorption	Technical data
1	NOVAPIETRA BIO	Canister	4-8	m ² /l	Water	-	-	-	-	page 163
2	T PRIMER	Canister	8-10	m ² /l	Water	-	-	-	-	page 186
3A	T A01	Bag	3-4	kg/m ²	-	0.2	11	0.02	Wc1	page 184
3B	T A FIBRO	Bag	3-4	kg/m ²	-	0.2	11	0.02	Wc1	page 185
3C	EXTRA RASO	Bag	1.4	kg/m ² xmm	-	0.3*	10	0.03	Wc1	page 182
4	TASSULLO CREA LINE	Bag	3-5	kg/m ²	-	0.1*	10 - 14	-	Wc0 - Wc2	page 140

*Minimum applicable thickness.

TECHNICAL NOTES: • It is always necessary to apply the detergent NOVAPIETRA BIO in the presence of organic patina on the application surface. • Application of the T PRIMER consolidating treatment is strongly recommended in all cases in which the SKIM PLASTER SYSTEM is applied on surfaces with dry flaking or to even out the level of absorption of the surface. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. •

REINFORCED SKIM PLASTER

CIVIL CONSTRUCTION



DESCRIPTION

System for reinforced skim plastering with products containing natural hydraulic lime NHL 5. Use of Tassullo products and RETE 160 allows for the creation of durable skim plasters that adhere in a stable manner to any type of surface, and significantly limit the formation of cracks in the presence of uneven surfaces. The chemical and physical characteristics of the products render the Reinforced Skim Plaster System suitable for both new constructions and restoration works.

SYSTEM FEATURES

- High workability
- High breathability
- Highly adhesive
- Prevents cracking
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas
2	CONSOLIDATING TREATMENT	T PRIMER	Highly penetrating fixing consolidating treatment in aqueous microemulsion
3	REINFORCED SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm
		RETE 160	Alkaline-resistant glass-fibre mesh for reinforced skim plaster
4	FINISH	TASSULLO CREA LINE	Highly breathable mineral finishes

Are you working on uneven, cracked or weak surfaces?

RETE 160

→ Reinforced skim plaster minimises the emergence of cracks due to different levels of water absorption by the surface or shrinkage of the layers of plaster.

Do you want to guarantee proper breathability for your masonry?

T A01 + TASSULLO CREA LINE

→ The use of products made with natural hydraulic lime NHL 5 guarantees excellent breathability for the surface of the masonry, favouring healthy construction and internal environments.

APPLICATION PHASES

PHASE 1

Preparation of the surface

Clean the application surfaces and remove any portions that are decohesive, crumbly or not solidly fixed to the surface.

PHASE 2

Removal of organic patina and consolidation

Apply the detergent NOVAPIETRA BIO to remove any organic patina present on the surface.

Apply the consolidating treatment T PRIMER to improve the cohesion of the application surface and to uniform the water absorption of the surface.

PHASE 3

Application of the skim plaster

Apply the first layer of skim plaster with a toothed spatula to a thickness of approximately 4 mm. Position RETE 160, applying slight pressure with the spatula to incorporate it into the product while it is still fresh.

Apply the second coat of skim plaster for complete coverage.

PHASE 4

Creation of the finish

It is recommended to use mineral finishes from the TASSULLO CREA line.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Solvent	Thickness (cm)	μ	Sd (m)	Water absorption	Technical data
1	NOVAPIETRA BIO	Canister	4-8	m ² /l	Water	-	-	-	-	page 163
2	T PRIMER	Canister	8-10	m ² /l	Water	-	-	-	-	page 186
3	T A01	Bag	6-8*	kg/m ²	-	0.5	11	0.02	Wc1	page 184
	RETE 160	Roll	1.1	m ² /m ²	-	-	-	-	-	page 183
4	TASSULLO CREA LINE	Bag	3-5	kg/m ²	-	0.1**	10 - 14	-	Wc0 - Wc2	page 140

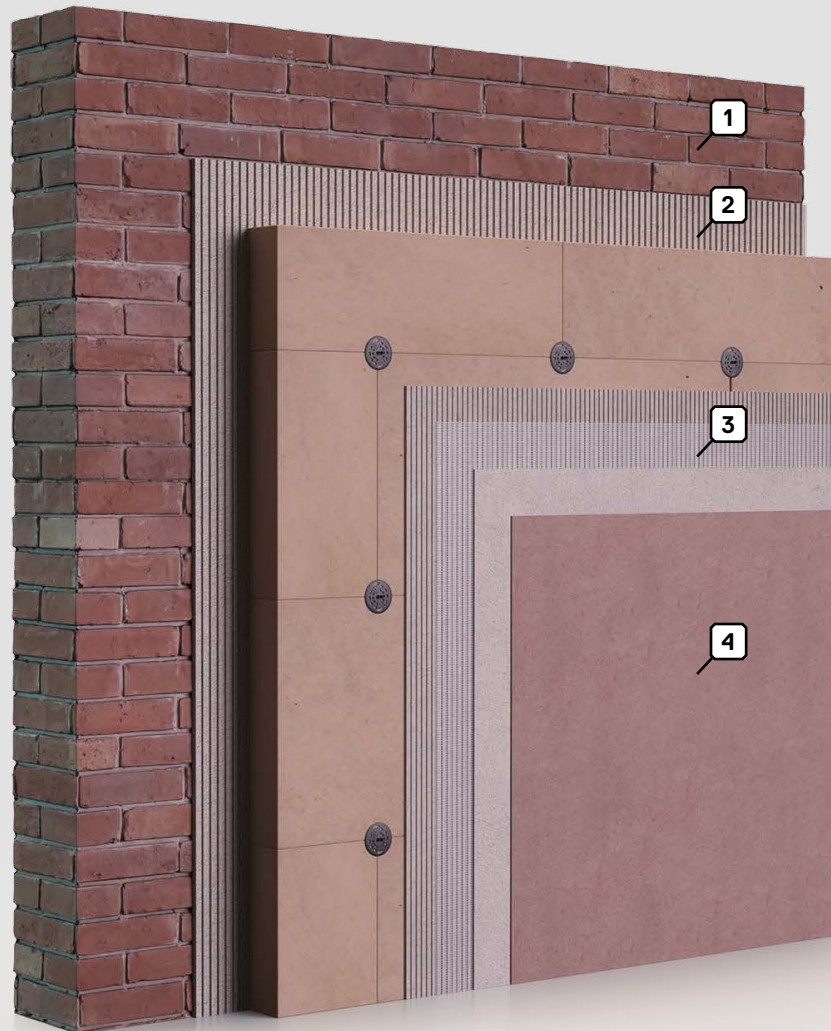
*The yield of T A01 refers to the application of two layers of the product to properly embed the mesh.
has context menu

**Minimum applicable thickness.

TECHNICAL NOTES: • It is always necessary to apply the detergent NOVAPIETRA BIO in the presence of organic patina on the application surface. • Application of the T PRIMER consolidating treatment is strongly recommended in all cases in which the REINFORCED SKIM PLASTER SYSTEM is applied on surfaces with dry flaking or to even out the level of absorption of the surface. • According to the level of finish required, the product T A01 can be substituted with the extremely fine T A00 or medium T A02 finishes with a maximum grading of 0.5 mm and 2 mm respectively.

THERMAL COAT

CIVIL CONSTRUCTION



DESCRIPTION

System for the gluing and reinforced skim plastering of insulating systems in slab form. The Thermal Coat System is ideal for the rapid application and successive skim plastering of the most commonly used insulating panels. The various combinations of products proposed render it suitable for both new constructions and prestigious restoration works, as well as works in line with the principles of bioconstruction.

SYSTEM FEATURES

- High workability
- High breathability
- Highly adhesive
- With natural hydraulic lime NHL 5



COMPONENTS

1	CONSOLIDATING TREATMENT	T PRIMER	Highly penetrating fixing consolidating treatment in aqueous microemulsion
2	ADHESIVE SKIM PLASTER	2A DOMUS PAN	Adhesive/skim plaster in natural hydraulic lime NHL 5
		2B T POWER	Adhesive/skim plaster for external insulation
3	REINFORCED SKIM PLASTER	3A DOMUS PAN	Adhesive/skim plaster in natural hydraulic lime NHL 5
		3B T POWER	Adhesive/skim plaster for external insulation
		RETE 160	Alkaline-resistant glass-fibre mesh for reinforced skim plaster
4	FINISH	TASSULLO CREA LINE	Highly breathable mineral finishes

Are you working in the restoration or bioconstruction field?

DOMUS PAN

→ 100% Natural hydraulic lime NHL 5

Are you working in the field of traditional civil construction?

T POWER

→ Suitable for traditional insulating panels

APPLICATION PHASES

PHASE 1

Preparation of the surface

Clean the application surfaces and remove any portions that are decohesive, crumbly or not solidly fixed to the substrate. Apply the consolidating treatment T PRIMER to improve the cohesion of the application surface and to uniform the water absorption of the substrate.

PHASE 2

Application of the slabs of insulating material

Apply a suitable amount of the adhesive

product to the insulating slab in an appropriate manner. Position the slab on the surface, applying pressure in order to correctly spread the adhesive over the surface.

PHASE 3

Application of the skim plaster

Apply the first layer of skim plaster with a toothed spatula to a thickness of approximately 4 mm. Position RETE 160, applying slight pressure with the spatula to incorporate it into the product while it is still fresh. Apply the second coat of skim plaster, to a thickness of at least 1 mm, for complete coverage.

PHASE 4

Creation of the finish

It is recommended to use mineral finishes from the TASSULLO CREA line.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1	T PRIMER	Canister	8-10	m ² /l	-	-	-	-	-	page 186
2A	DOMUS PAN	Bag	4-5	kg/m ²	-	4	12	-	0.45	page 182
2B	T POWER	Bag	4-5	kg/m ²	-	4	20	-	0.61	page 186
3A	DOMUS PAN	Bag	4-5	kg/m ²	0.5	7	12	0.04	0.45	page 182
	RETE 160	Roll	1.1	m ² /m ²	-	-	-	-	-	page 183
3B	T POWER	Bag	3-4	kg/m ²	0.5	7	20	0.06	0.61	page 186
	RETE 160	Roll	1.1	m ² /m ²	-	-	-	-	-	page 183
4	TASSULLO CREA LINE	Bag	3-5	kg/m ²	0.15*	-	10-14	-	-	page 140

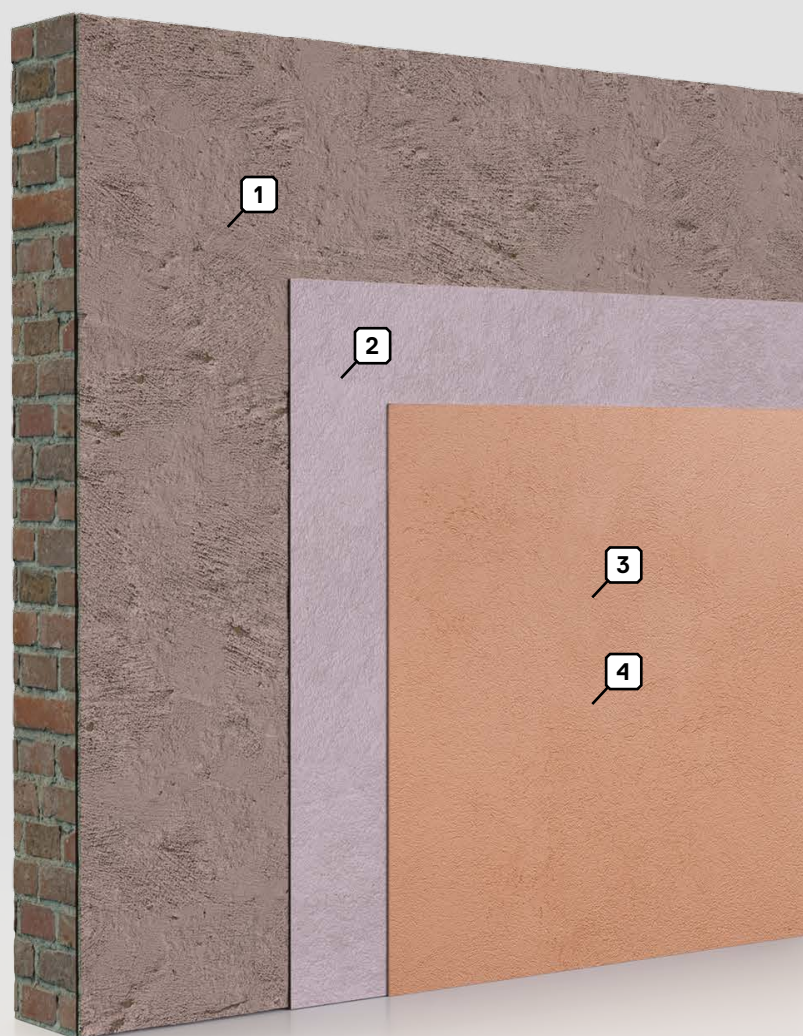
*Minimum applicable thickness.

**The incidence of DOMUS PAN and T POWER refers to the application of 1 layer of product for bonding the panels and 2 layers of product for skim plastering the panels.

TECHNICAL NOTES: • Application of the T PRIMER consolidating treatment is strongly recommended in all cases in which the THERMAL COAT SYSTEM is applied on surfaces with dry flaking or to even out the level of absorption of the surface. • If necessary, carry out deep cleaning with the most suitable NOVAPIETRA detergent before applying the consolidating product. • Please refer to the relative instructions for the installation of insulation systems for the positioning of the slabs. • The THERMAL COAT SYSTEM must be finished with a water-repellent finishing product of appropriate grading to a thickness of at least 1.5 mm.

LIME EFFECT

FINE FINISHES



DESCRIPTION

System for prestige mineral finishes for internal and external walls. Allows the visual and chemical-physical effect of period mineral finishes to be reproduced. The use of Tassullo products made with natural hydraulic lime NHL 5 ensures compatibility of the Lime Effect System with any surface for both restoration and bioconstruction works.

SYSTEM FEATURES

- Resistant to degradation
- Customisable to sample
- High finish protection
- Available in 16 natural colours
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	CONSOLIDATING TREATMENT	T PRIMER	Highly penetrating fixing consolidating treatment in aqueous microemulsion
2	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm
3	FINISH	3A CREA AD ARTE	Custom-made mineral finish with lime
		3B CALCE FINE	Fine mineral finish in natural hydraulic lime NHL 5
		3C CALCE MEDIA	Medium mineral finish in natural hydraulic lime NHL 5
4	PROTECTIVE TREATMENT	LITHOS PLUS	Solvent-based breathable protective treatment

Do you want to create a faithful reproduction of an existing finish?

CREA AD ARTE

→ Reproductions of finishes made to order

Do you want to create a fine-grain coloured finish?

CALCE FINE

→ 16 colours available

Do you want to create a medium-grain coloured finish?

CALCE MEDIA

→ 16 colours available

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Application of the consolidating treatment

Apply the T PRIMER consolidating treatment in order to fix any inconsistent or crumbly parts and to ensure even water absorption of the surface.

PHASE 3

Application of the skim plaster

Apply T A01 with a spatula.

PHASE 4

Creation of the finish

Apply the finish by hand, in a single, thin coat. Finish as desired in accordance with the chosen visual effect.

PHASE 5

Application of the protective treatment

Apply LITHOS PLUS with a natural-fibre brush or low-pressure distributor, until the surface is saturated.

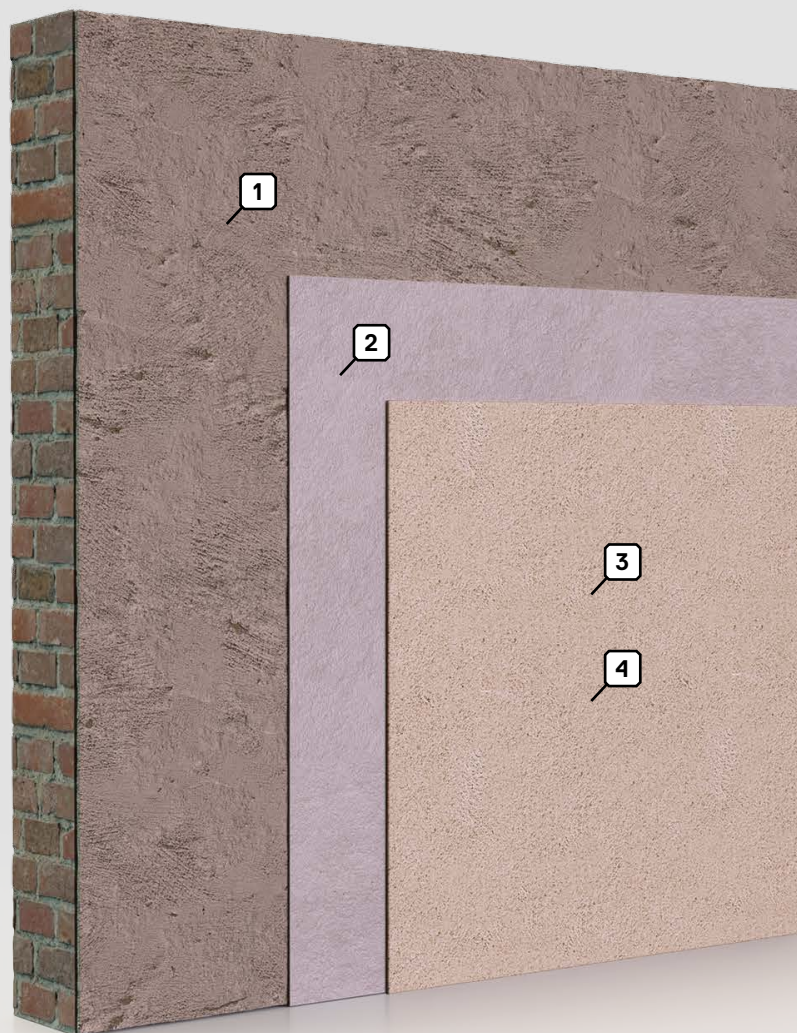
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	Water absorption	Technical data
1	T PRIMER	Canister	10	m ² /l	-	-	-	-	-	page 186
2	T A01	Bag	3	kg/m ²	0.3	3	11	0.03	Wc1	page 160
3A	CREA AD ARTE	Bag	3.5	kg/m ²	0.2	3.5	11	0.02	project based	page 148
3B	CALCE FINE	Bag	3	kg/m ²	0.2	3	12	0.02	Wc2	page 143
3C	CALCE MEDIA	Bag	4	kg/m ²	0.2	4	12	0.02	Wc2	page 122
4	LITHOS PLUS	Canister	10	m ² /l	-	-	-	-	75 % reduction	page 164

TECHNICAL NOTES: • T PRIMER must always be used in the event that the LIME EFFECT SYSTEM is being applied to crumbly or not uniform surfaces. • According to the level of finish required, the product T A01 can be substituted with the extremely fine T A00 or medium T A02 finishes with a maximum grading of 0.5 mm and 2 mm respectively. • It is strongly recommended to use a protective treatment for external applications. • According to requirements, the solvent-based toning protective treatment LITHOS TONO can be used in place of LITHOS PLUS to highlight the colours of the aggregates in the finish.

WASHED-OUT EFFECT

FINE FINISHES



DESCRIPTION

System for prestige mineral finishes with a rustic effect for internal and external walls. The combination of natural hydraulic lime NHL 5 with the special aggregates proposed, allows prestige visual effects to be obtained that can be varied according to the surface process applied, enhancing the chromatic characteristics of the aggregates as desired.

SYSTEM FEATURES

- Resistant to degradation
- Rustic finish
- Fine aggregates
- Available in 16 natural colours
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	CONSOLIDATING TREATMENT	T PRIMER	Highly penetrating fixing consolidating treatment in aqueous microemulsion	
2	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	
3	FINISH	3A CALCE DILAVATO	Mineral finish with river aggregates and natural hydraulic lime NHL 5	
		3B COCCIO VIVO	Mineral finish with crushed pottery and natural hydraulic lime NHL 5	
4	PROTECTIVE TREATMENT	LITHOS PLUS	Solvent-based breathable protective treatment	

Do you want to obtain a washed-out effect?

CALCE DILAVATO

→ Silicate aggregates

Do you want to use a specific traditional technique?

COCCIO VIVO

→ Crushed pottery aggregates

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Application of the consolidating treatment

Apply the T PRIMER consolidating treatment in order to fix any inconsistent or crumbly parts and to ensure even water absorption of the surface.

PHASE 3

Application of the skim plaster

Apply T A01 with a spatula.

PHASE 4

Creation of the finish

Apply the finish by hand, in a single, thin coat. Finish as desired in accordance with the chosen visual effect.

PHASE 5

Application of the protective treatment

Apply LITHOS PLUS with a natural-fibre brush or low-pressure distributor, until the surface is saturated.

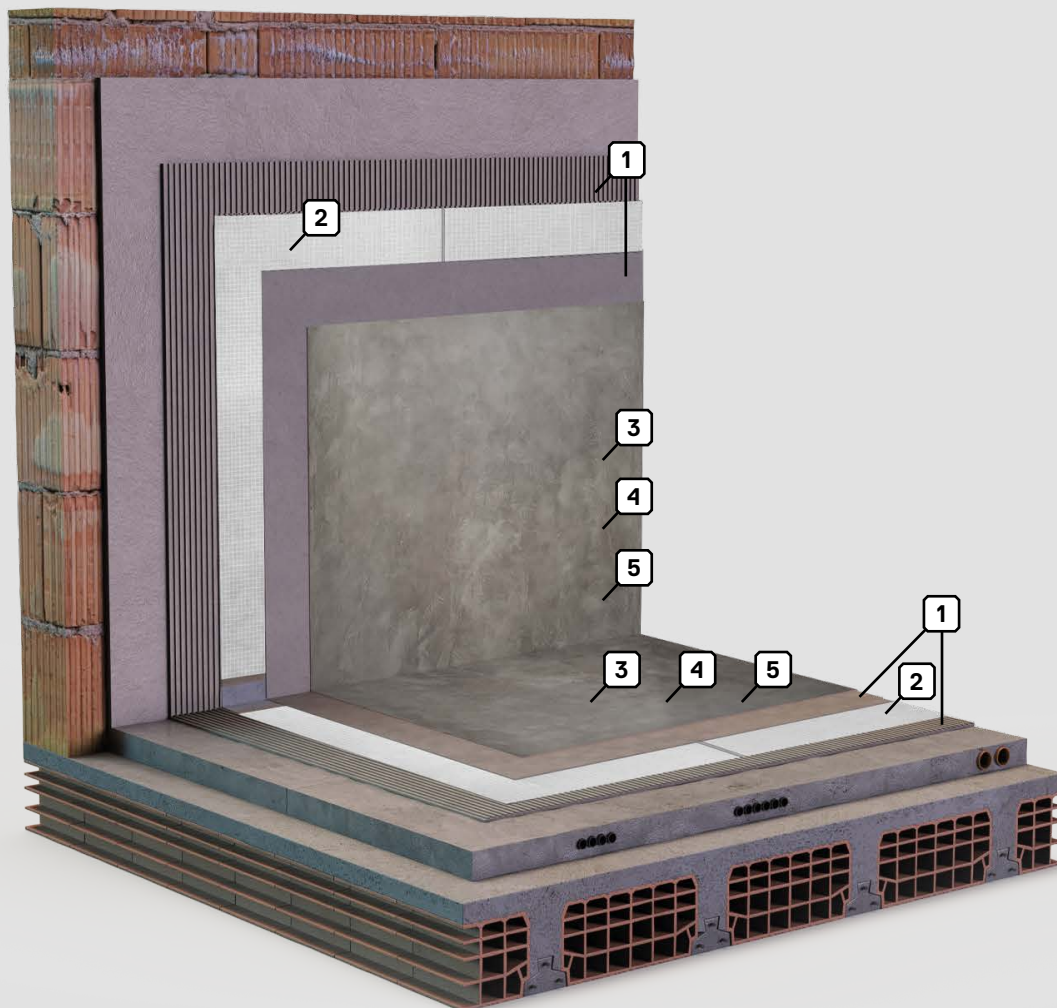
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m²)	μ	Sd (m)	Water absorption	Technical data
1	T PRIMER	Canister	10	m²/l	-	-	-	-	-	page 186
2	T A01	Bag	3	kg/m²	0.4	3	11	0.04	Wc1	page 184
3A	CALCE DILAVATO	Bag	3.5	kg/m²	0.3	3.5	11	0.03	Wc1	page 142
	SABBIA DI FIUME	Bag								
3B	COCCIO VIVO	Bag	5	kg/m²	0.3	5	12	0.04	Wc0	page 146
	COCCIO GRANULATO	Bag								
4	LITHOS PLUS	Canister	10	m²/l	-	-	-	-	75% reduction	page 164

TECHNICAL NOTES: • T PRIMER must always be used in the event that the WASHED-OUT EFFECT SYSTEM is being applied to crumbly or not uniform surfaces. • According to the level of finish required, the product T A01 can be substituted with the extremely fine T A00 or medium T A02 finishes with a maximum grading of 0.5 mm and 2 mm respectively. • It is strongly recommended to use a protective treatment for external applications. • According to requirements, the solvent-based toning protective treatment LITHOS TONO can be used in place of LITHOS PLUS to highlight the colours of the aggregates in the finish.

SILK EFFECT

FINE FINISHES



DESCRIPTION

System for prestige mineral finishes with a smooth effect for floors and internal walls. The use of Tassullo products made with natural hydraulic lime NHL 5, ensures compatibility of the Silk Effect System with any surface for both restoration and bioconstruction works.

SYSTEM FEATURES

- Resistant to degradation
- High finish protection
- Fine finish with smooth effect
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTI

1	SUBFLOOR	T FIX ECO	Interior adhesive in natural hydraulic lime NHL 5
2	REINFORCEMENT	2A HYDRO MULTI LAYER	Four-layer impermeable and separating fabric
		2B RETE 160	Alkaline-resistant glass-fibre mesh for reinforced skim plaster
3	FINISH	CALCE SETA	Extremely fine mineral finish in natural hydraulic lime NHL 5
4	IMPREGNATING TREATMENT	TOTAL CARE	Stain-resistant impregnating treatment for mineral finishes
5	PROTECTIVE TREATMENT	CERA FORTE	Opaque protective treatment for mineral finishes

Are you working in damp environments?

HYDRO MULTI LAYER

→ Impermeable and separating fabric

Are you working on an existing support?

HYDRO MULTI LAYER

→ Impermeable and separating fabric

Are you working on a new and even support?

RETE 160

→ Reinforced substrate

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general. Crumbly or inconsistent surfaces require preliminary application of the T PRIMER consolidating treatment.

PHASE 2

Application of the sub-base

Apply T FIX ECO as a substrate, reinforced with RETE 160 or HYDRO MULTI LAYER, following the specific phases of application for the reinforcement chosen.

PHASE 3

Creation of the finish

Apply multiple coats of CALCE SETA with a stainless-steel float or spatula.

PHASE 4

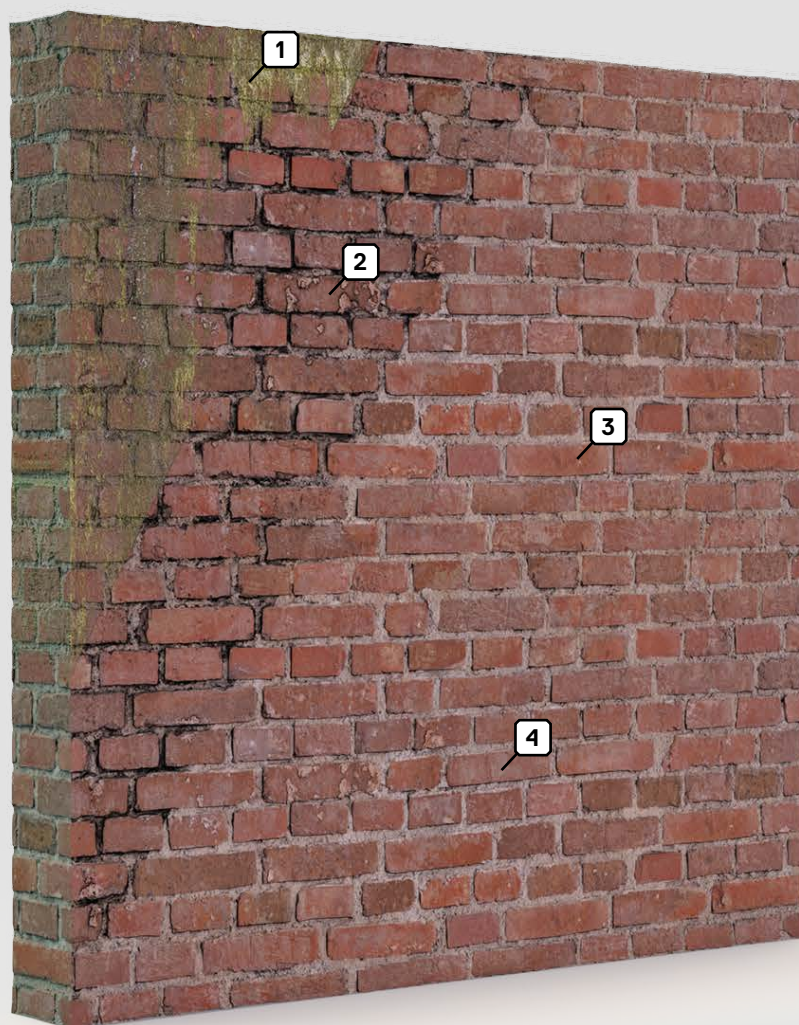
Application of the protective treatment

Apply two coats of TOTAL CARE, applying the second coat while the first is still damp, with a wax applicator or natural-fibre brush. Spread two coats of CERA FORTE with a wax applicator or natural-fibre brush.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	Water absorption	Technical data
1	T FIX ECO	Bag	4	kg/m ²	0.4	4	-	-	-	page 151
2A	HYDRO MULTI LAYER	Roll	1	m ² /m ²	0.075	-	667	0.50	-	page 111
2B	RETE 160	Roll	1.1	m ² /m ²	-	-	-	-	-	page 183
3	CALCE SETA	Bag	2	kg/m ²	0.3	2	-	-	< 0.4 kg/(m ² ×min ^{0.5})	page 145
4	TOTAL CARE	Canister	10	m ² /l	-	-	-	-	-	page 147
5	CERA FORTE	Canister	14	m ² /l	-	-	-	-	-	page 146

TECHNICAL NOTES: • HYDRO STOP is not always necessary, but must be used before applying the substrate, on old floorings previously scraped and in all cases in which the Silk Effect System needs to provide solid resistance to water vapour. • To ensure uninterrupted liquid proofing, use HYDRO TAPE and HYDRO FIX for perimeter joints and any weak points in the impermeable layer. • In cases in which multiple sections of impermeable fabric are required to cover the entire surface, these must be positioned side by side, with HYDRO TAPE applied over the joint and sealed with HYDRO FIX, to ensure continuity. • When applying the system to walls, on new and even supports, the substrate can be created with T A00 reinforced with RETE 160 instead of T FIX ECO. • The actual amount of CERA FORTE necessary depends on how smooth the finish is, and can be assessed by carrying out a test on a small area of the surface. The product CERA FORTE does not require smoothing. For maintenance of the surfaces, avoid the use of products containing hydrochloric acid, ammonia, bleach or alcohol.



DESCRIPTION

System for the cleaning, cortical consolidation and protection of deteriorated surfaces. Includes products for the cleaning of artefacts, the consolidation of any decohesive or crumbly sections and the subsequent protection from deterioration and the elements. The use of Tassullo products allows for intervention on period artefacts that show the physiological signs of ageing, while leaving the natural surface patina of aging intact.

SYSTEM FEATURES

- Selective on dirt
- High detergent power
- High protection
- Resistant to degradation



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas
2	DETERGENT	2A NOVAPIETRA A	Acidic cleaner for silicate stone
		2B NOVAPIETRA N	Neutral detergent for delicate surfaces
3	CONSOLIDATING TREATMENT	CONSOLIDA	Consolidating treatment with ethyl silicate
4	PROTECTIVE TREATMENT	LITHOS PLUS	Solvent-based breathable protective treatment

Do you need to treat silicate stone or mineral surfaces?

NOVAPIETRA A

→ acidic pH

Do you need to treat delicate mineral surfaces?

NOVAPIETRA N

→ neutral pH

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Removal of organic patina

Apply NOVAPIETRA BIO with a brush or low-pressure distributor until the surface is saturated. Wait 24/48 hours and then wash with water at a controlled pressure.

PHASE 3

Deep cleaning of the surface

Apply NOVAPIETRA A or NOVAPIETRA N, according to requirements, forming a foam with the product on the surface to be treated. Wait 5/10 minutes and then wash with water at a controlled pressure.

PHASE 4

Application of the consolidating treatment

Apply CONSOLIDA to the clean and dry surface with a low-pressure spray or soft natu-

ral-fibre brush until the surface is saturated. At least two coats of the product must be applied.

PHASE 5

Application of the protective treatment

Apply LITHOS PLUS with a natural-fibre brush or low-pressure distributor, until the surface is saturated.

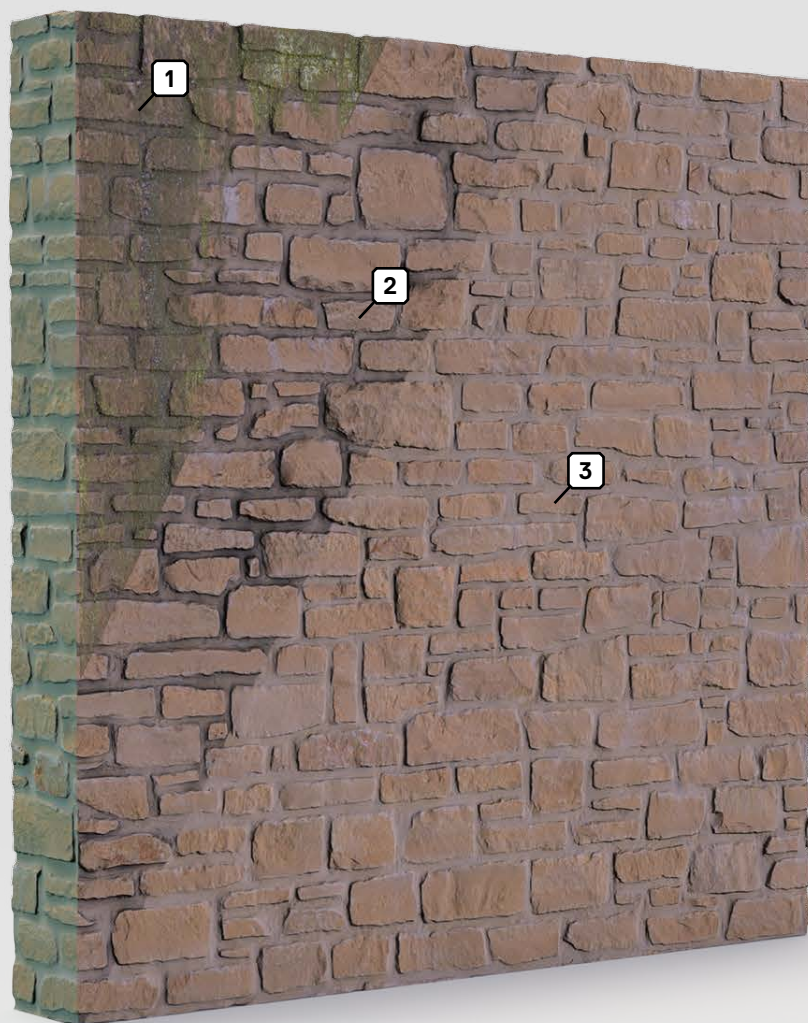
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Solvent	pH	Water absorption reduction	Technical data
1	NOVAPIETRA BIO	Canister	8	m ² /l	Water	7.5 ± 0.5	0 %	page 163
2A	NOVAPIETRA A	Canister	20	m ² /l	Water	4.5 ± 0.5	0 %	page 162
2B	NOVAPIETRA N	Canister	6	m ² /l	Water	8.3 ± 0.5	0 %	page 163
3	CONSOLIDA	Canister	6	m ² /l	Alcohol	-	35-40 %	page 161
4	LITHOS PLUS	Canister	10	m ² /l	White spirit	-	75 %	page 164

TECHNICAL NOTES: • It is always advisable to test the products on a limited area of the surface in order to verify any undesired reactions. • In order to develop the consolidating effect, the CONSOLIDA product must be left to act on the treated surface for 10-15 days. • If necessary, the product LITHOS PLUS can be substituted with the LITHOS water-based breathable protective treatment or with the LITHOS TONO solvent-based protective toning treatment.

LIMESTONE

RESTORATION



DESCRIPTION

System for the cleaning and cortical consolidation of deteriorated limestone surfaces. Includes products for the cleaning of artefacts, the consolidation of any decohesive or crumbly sections and the subsequent protection from deterioration and the elements. The use of Tassullo products allows for intervention on period artefacts that show the physiological signs of ageing, and to restore them to their original glory.

SYSTEM FEATURES

- Delicate on surfaces
- High detergent power
- High protection
- Resistant to degradation



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas
2	DETERGENT	2A NOVAPIETRA B	Alkaline cleaner for limestone
		2B NOVAPIETRA N	Neutral detergent for delicate surfaces
3	CONSOLIDATING TREATMENT	CONSOLIDA PLUS	Protective consolidating treatment with ethyl silicate and siloxanes

Do you need to treat limestone that is not delicate?

NOVAPIETRA B

→ alkaline pH

Do you need to treat delicate mineral surfaces?

NOVAPIETRA N

→ neutral pH

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Removal of organic patina

Apply NOVAPIETRA BIO with a brush or low-pressure distributor until the surface is

saturated. Wait 24/48 hours and then wash with water at low pressure.

PHASE 3

Deep cleaning of the surface

Apply NOVAPIETRA B or NOVAPIETRA N, according to requirements, forming a foam with the product on the surface to be treated. Wait 5/10 minutes and then wash with water at low pressure.

PHASE 4

Application of the consolidating protective treatment

Apply CONSOLIDA PLUS to the clean and dry surface with a low-pressure spray or soft natural-fibre brush until the surface is saturated. At least two coats of the product must be applied.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Solvent	pH	Water absorption reduction	Technical data
1	NOVAPIETRA BIO	Canister	8	m ² /l	Water	7.5 ± 0.5	0 %	page 163
2A	NOVAPIETRA B	Canister	15	m ² /l	Water	13 ± 0.5	0 %	page 162
2B	NOVAPIETRA N	Canister	6	m ² /l	Water	8.3 ± 0.5	0 %	page 163
3	CONSOLIDA PLUS	Canister	10	m ² /l	Alcohol	-	75 %	page 161

TECHNICAL NOTES: • It is always advisable to test the products on a limited area of the surface in order to verify any undesired reactions. • In order to develop the consolidating effect, the CONSOLIDA product must be left to act on the treated surface for 10-15 days.

SILICATE STONE

RESTORATION



DESCRIPTION

System for the cleaning, cortical consolidation and protection of deteriorated surfaces in silicate stone. Includes products for the cleaning of artefacts, the consolidation of any decohesive or crumbly sections and the subsequent protection from deterioration and the elements. The use of Tassullo products allows for intervention on period artefacts that show the physiological signs of ageing, and to restore them to their original glory.

SYSTEM FEATURES

- Delicate on surfaces
- High detergent power
- High protection
- Resistant to degradation



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas
2	DETERGENT	2A NOVAPIETRA A	Acidic cleaner for silicate stone
		2B NOVAPIETRA N	Neutral detergent for delicate surfaces
3	CONSOLIDATING TREATMENT	CONSOLIDA	Consolidating treatment with ethyl silicate
4	PROTECTIVE TREATMENT	LITHOS PLUS	Solvent-based breathable protective treatment

Do you need to treat silicate stone or mineral surfaces?

NOVAPIETRA A

→ acidic pH

Do you need to treat delicate mineral surfaces?

NOVAPIETRA N

→ neutral pH

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Removal of organic patina

Apply NOVAPIETRA BIO with a brush or low-pressure distributor until the surface is saturated. Wait 24/48 hours and then wash with water at a controlled pressure.

PHASE 3

Deep cleaning of the surface

Apply NOVAPIETRA A or NOVAPIETRA N, according to requirements. Wait 5/10 minutes and then wash with water at a controlled pressure.

PHASE 4

Application of the consolidating treatment

Apply CONSOLIDA to the clean and dry surface with a low-pressure spray or soft natural-fibre brush until the surface is saturated. At least two coats of the product must be applied.

PHASE 5

Application of the protective treatment

Apply LITHOS PLUS with a natural-fibre brush or low-pressure distributor, until the surface is saturated.

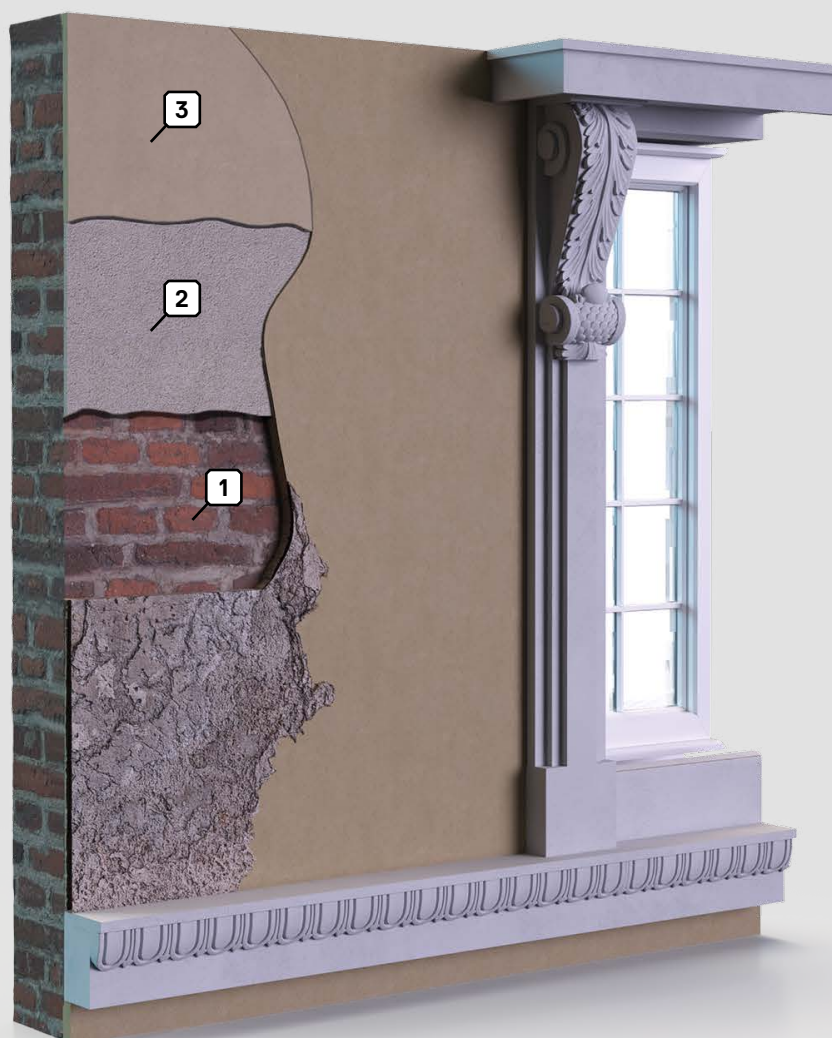
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Solvent	pH	Water absorption reduction	Technical data
1	NOVAPIETRA BIO	Canister	8	m ² /l	Water	7.5 ± 0.5	0 %	page 163
2A	NOVAPIETRA A	Canister	20	m ² /l	Water	4.5 ± 0.5	0 %	page 162
2B	NOVAPIETRA N	Canister	6	m ² /l	Water	8.3 ± 0.5	0 %	page 163
3	CONSOLIDA	Canister	6	m ² /l	Water	-	35-40 %	page 161
4	LITHOS PLUS	Canister	10	m ² /l	White spirit	-	75 %	page 164

TECHNICAL NOTES: • It is always advisable to test the products on a limited area of the surface in order to verify any undesired reactions. • In order to develop the consolidating effect, the CONSOLIDA product must be left to act on the treated surface for 10-15 days. • If necessary, the product LITHOS PLUS can be substituted with the LITHOS water-based breathable protective treatment or with the LITHOS TONO solvent-based protective toning treatment.

HISTORICAL PLASTER

RESTORATION



DESCRIPTION

System for the repointing of joints and/or the renovation of deteriorated plaster in restoration works. The use of Tassullo products, made with natural hydraulic lime NHL 5, guarantees the utmost compatibility with period masonry and materials. The possibility of personalising mortars, with the addition of particular aggregates or through design to order, allows for the creation of a wide range of visual effects and the reproduction of chemical, physical, mechanical and material characteristics of the original materials.

SYSTEM FEATURES

- High compatibility
- Customisable
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas	
		2A DUOMO + SABBIA DI FIUME	Customisable plastering mortar in natural hydraulic lime NHL 5 + Mixed river sand for the on-site creation of mortar	
2	PLASTER	2B DUOMO RINOVA	Plaster/skim plaster in natural hydraulic lime NHL 5 for application in layers of between 3 and 30 mm	
		2C DUOMO AD ARTE	Custom-made mortar for plaster	
3	FINISH	FINE FINISHES SYSTEMS	Complete with one of the Tassullo fine finishes systems	

Does the original material contain river aggregates? DUOMO + SABBIA DI FIUME → Customisable	Do you need to restore uneven surfaces? DUOMO RINOVA → Applicable in thicknesses of between 3 and 30 mm	Do you need to faithfully reproduce original materials? DUOMO AD ARTE → Formulated to order
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APPLICATION PHASES

PHASE 1 Preparation of the surface Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.	low-pressure distributor until the surface is saturated. Wait 24/48 hours and then wash with water at a controlled pressure.	PHASE 4 Creation of the finish Apply the skim coat and finish according to the indications of the chosen Fine Finishes system.
PHASE 2 Removal of organic patina Apply NOVAPIETRA BIO with a brush or	PHASE 3 Application of the plaster Apply the main body of plaster, then use a straight edge and float as required.	

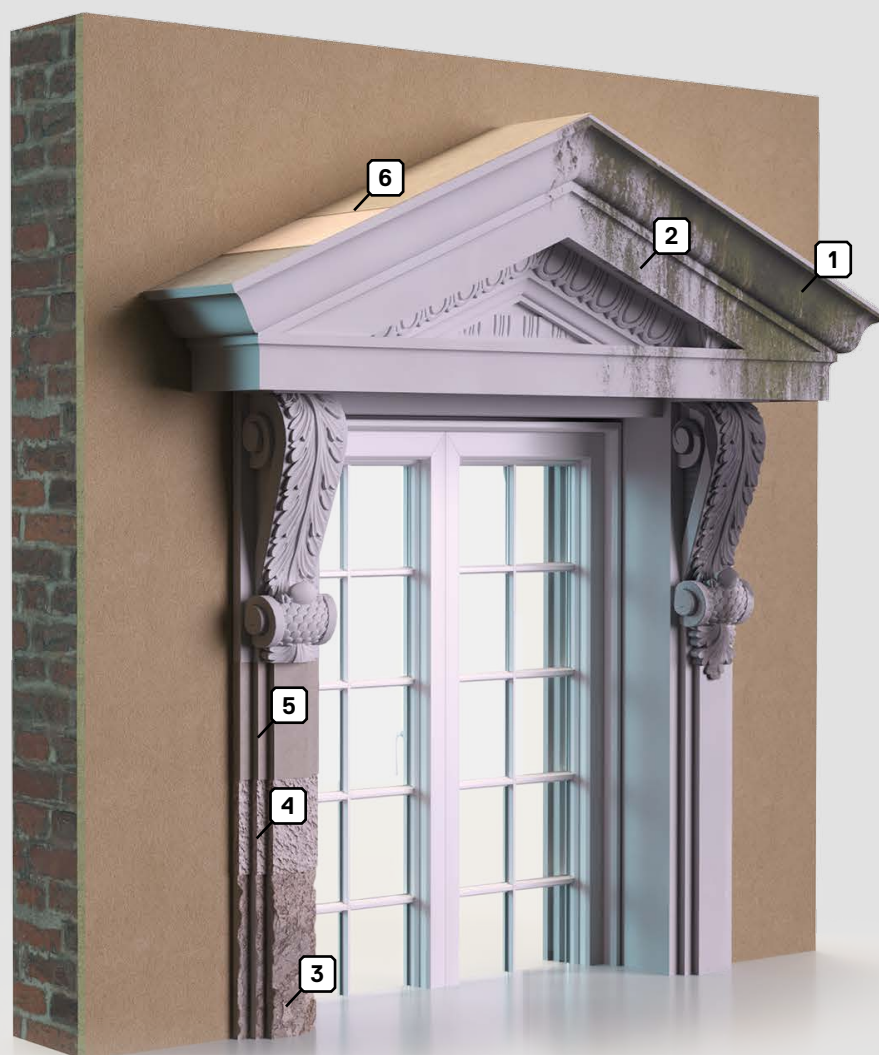
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1	NOVAPIETRA BIO	Canister	8	m ² /l	-	-	-	-	-	page 163
2A	DUOMO	Bag	17	kg/(m ² ×cm)	1.5	25.5	12	0.18	-	page 165
	SABBIA DI FIUME	Bag	0.1	kg/kg	-	2.6	-	-	-	
2B	DUOMO RINOVA	Bag	1.4	kg/(m ² ×mm)	1.5	21	10	0.3	0.61	page 167
2C	DUOMO AD ARTE	Bag	15-18	kg/(m ² ×cm)	1.5	22.5 - 27	-	-	Project based	page 166
3	FINE FINISHES SYSTEMS	-	-	-	-	-	-	-	-	-

TECHNICAL NOTES: • It is always advisable to test the products on a limited area of the surface in order to verify any undesired reactions. • The use of NOVAPIETRA BIO is essential in the presence of organic patinas.

STONE REBUILD

RESTORATION



DESCRIPTION

System for the volumetric reconstruction, functional restoration and protection from water of deteriorated architectural elements. Tassullo products, made with natural hydraulic lime NHL 5, guarantee the utmost compatibility with period materials. The use of selected aggregates with specific grading allows for the rapid carrying out of volumetric reconstruction while, at the same time, modelling the surface on the basis of the geometry of the architectural element in question. The protection from water of protruding facade elements limits the secondary exposure of walls.

SYSTEM FEATURES

- High compatibility
- Adequate mechanical strength
- With natural hydraulic lime NHL 5



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas	
2	DETERGENT	NOVAPIETRA A, B or N	Specific cleaner for porous materials	
3	CONSOLIDATING TREATMENT	CONSOLIDA	Consolidating treatment with ethyl silicate	
4	VOLUMETRIC STONE RESTORATION	STONE	Mortar with natural hydraulic lime NHL 5 for the restoration and reconstruction of architectural elements	
5	THIN STONE RESTORATION	STONE COVER	Extremely fine mineral finish with natural hydraulic lime NHL 5 for the restoration of architectural elements	
		NURAGHE RASO	Single-component waterproofing in natural hydraulic lime NHL 5	
6	WATERPROOFING	T A00	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-0.5 mm	
		LITHOS PLUS	Solvent-based breathable protective treatment	

Do you need to restore deteriorated stone not exposed to the elements?

**STONE
STONE COVER**

→ Volumetric and surface restoration

Do you need to waterproof restored surfaces?

**NURAGHE RASO
T A00
LITHOS**

→ Waterproof finish

How to apply the protective layer correctly?

NURAGHE RASO

→ Apply to the vertical surface to a distance of approximately ten centimetres above the architectural element, skirt the sharp edge and form a slight incline to favour the running off of rain

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Removal of organic patina

Apply NOVAPIETRA BIO with a brush or low-pressure distributor until the surface is saturated. Wait 24/48 hours and then wash with water at low pressure.

PHASE 3

Deep cleaning of the surface

Apply the chosen cleaner in accordance with the type of surface to be treated. Wait 5/10

minutes and then wash with water at low pressure.

PHASE 4

Application of the consolidating treatment

Apply CONSOLIDA to the clean and dry surface with a low-pressure spray or soft natural-fibre brush until the surface is saturated. At least two coats of the product must be applied.

PHASE 5

Volumetric restoration of architectural elements, if necessary

Apply STONE, in one or more coats according to the volume to be created and reconstruct the deteriorated architectural elements.

Model the surface according to the geometry of the element

PHASE 6

Restoration of the finish

Apply STONE COVER for the cortical restoration of deteriorated architectural elements or as a finish for previous volumetric reconstruction works.

PHASE 7

Application of the waterproofing treatment

Where necessary, apply NURAGHE RASO on the areas subject to rain infiltration and then skim plaster with T A00. To increase the level of protection, apply LITHOS PLUS to the previously skim-plastered surface.

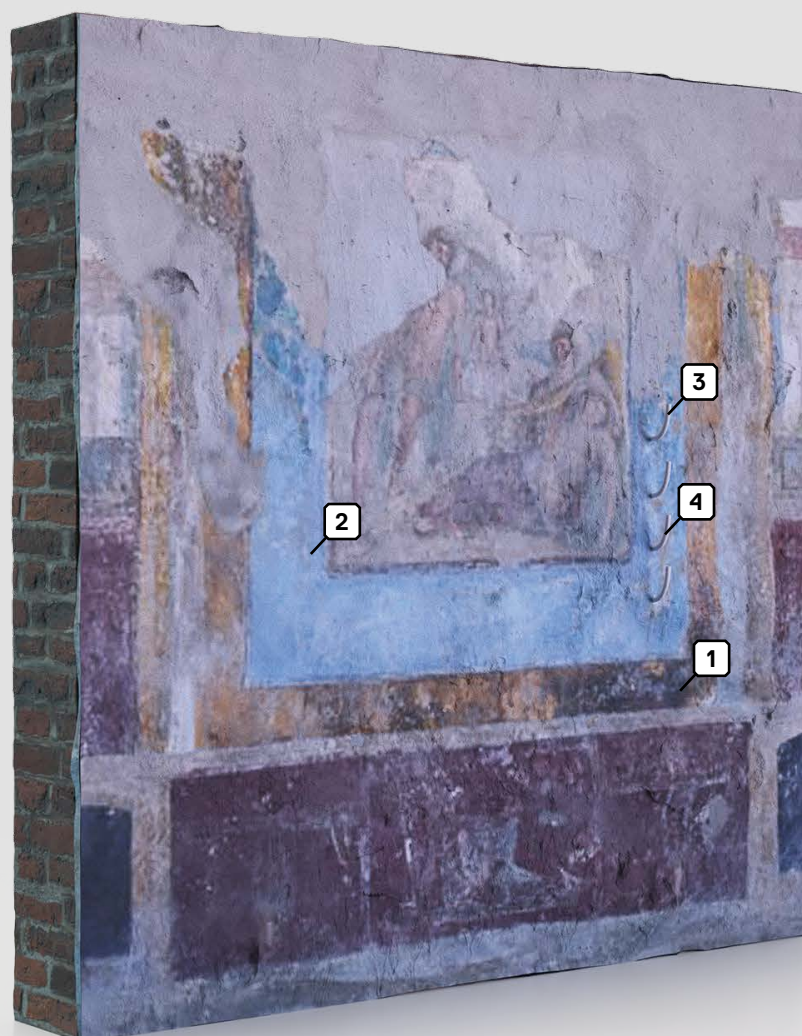
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Solvent	pH	Water absorption reduction	Technical data
1	NOVAPIETRA BIO	Canister	8	m ² /l	Water	7.5 ± 0.5	0 %	page 163
2A	NOVAPIETRA A	Canister	20	m ² /l	Water	4.5 ± 0.5	0 %	page 162
2B	NOVAPIETRA B	Canister	15	m ² /l	Water	13 ± 0.5	0 %	page 162
2C	NOVAPIETRA N	Canister	6	m ² /l	Water	8.3 ± 0.5	0 %	page 163
3	CONSOLIDA	Canister	6	m ² /l	Alcohol	-	35-40 %	page 161
4	STONE	Bag	18	kg/(m ² ×cm)	-	-	-	page 168
5	STONE COVER	Bag	2	kg/(m ² ×mm)	-	-	-	page 168
	NURAGHE RASO	Bag	4	kg/m ²	-	-	-	page 109
6	T A00	Bag	2	kg/m ²	-	-	-	page 183
	LITHOS PLUS	Canister	10	m ² /l	White spirit	-	75 %	page 164

TECHNICAL NOTES: • It is always advisable to test the products on a limited area of the surface in order to verify any undesired reactions. • In order to develop the consolidating effect, the CONSOLIDA product must be left to act on the treated surface for 10-15 days. • For large, restored volumes and in order to improve surface of the reconstructed section, PHASE 5 may be carried out in combination with the use of fibreglass rods opportunely anchored to the surface.

DETACHED PLASTER

RESTORATION



DESCRIPTION

System involving the injection of lightweight binding compound for the re-anchoring of detached plaster. Particularly effective in the presence of plasters and finishes of historical and artistic interest that cannot be removed despite having sections that are detached. The special Tassullo consolidating compound allows plaster to be fixed to walls, limiting the pressure applied during injection, and to restore a solid bond with the surface.

SYSTEM FEATURES

- Elevated adhesive strength
- Reduced pressure
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas
2	DETERGENT	NOVAPIETRA N	Neutral detergent for delicate surfaces
3	BINDING COMPOUND	DUOMO FLUID	Lightweight injection mix in natural hydraulic lime NHL 5
4	SKIM PLASTER	T A00	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-0.5 mm

Are you involved in restoration works that require the utmost attention and respect for the original materials?

DUOMO FLUID

→ A light product applied through injection made exclusively with natural hydraulic lime NHL 5, capable of re-anchoring detached plaster with the use of binders compatible with period materials and without adding excessive weight to the structure

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Removal of organic patina

Apply NOVAPIETRA BIO with a brush or low-pressure distributor, until the surface is saturated. Wait 24/48 hours and then wash with water at low pressure.

PHASE 3

Deep cleaning of the surface

Apply NOVAPIETRA N with a brush from the bottom upwards. Wait 5/10 minutes and then wash with water at low pressure.

PHASE 4

Operations preceding injection

Create injection holes of a minimum diameter of 2-3 mm spaced in accordance with the condition of the plaster (approximately 20-30 cm).

PHASE 5

Injection of the binding compound

Inject DUOMO FLUID via gravity, with the use of syringes or special devices capable of controlling flow and pressure.

PHASE 6

Levelling of surfaces

Level the surfaces by applying T A00 with a spatula in any areas where finish has detached from plaster.

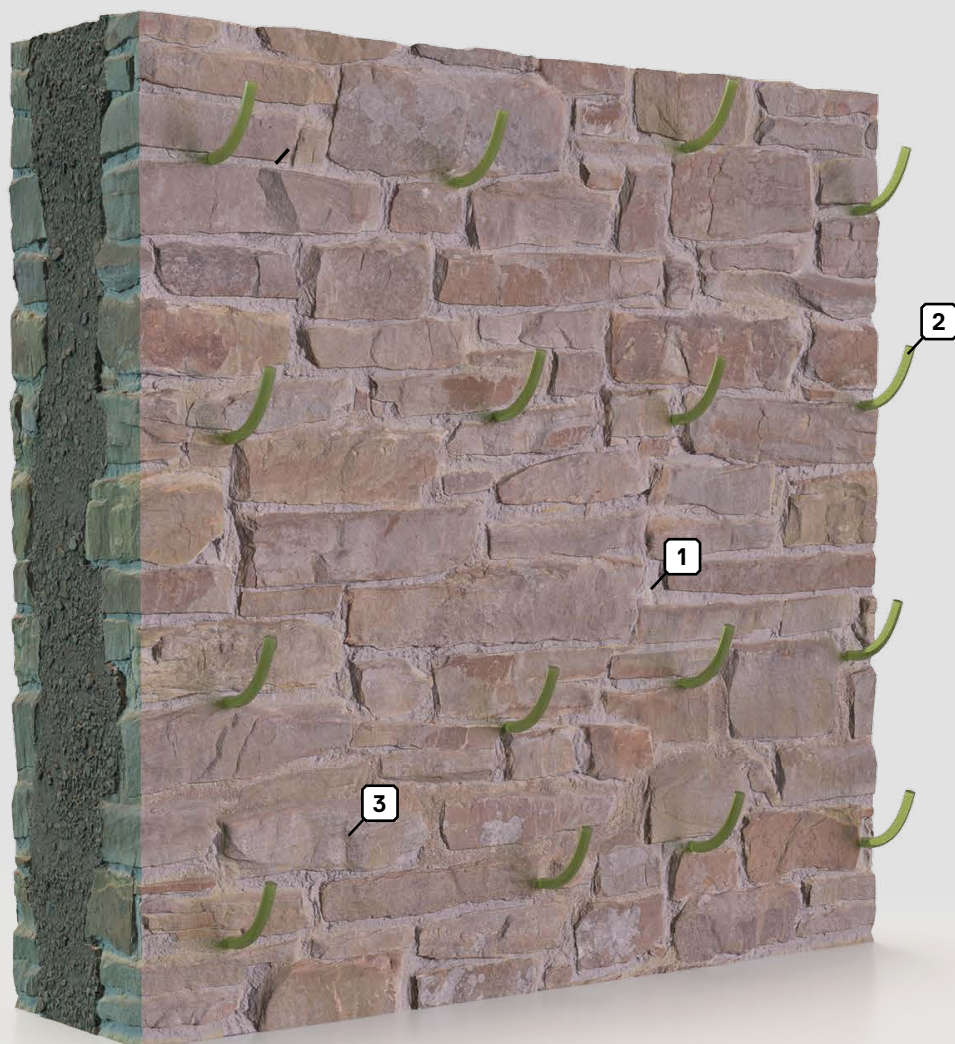
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Specific weight	U.M	pH	Solvent	Chloride content	Technical data
1	NOVAPIETRA BIO	Canister	8	m ² /l	1.00	kg/l	7.5 ± 0.5	Water	0 %	page 163
2	NOVAPIETRA N	Canister	6	m ² /l	1.06	kg/l	8.3 ± 0.5	Water	0 %	page 163
3	DUOMO FLUID	Bag	0.9	l/kg	1100-1200	kg/m ³	-	-	< 0.05 %	page 166
4	T A00	Bag	2	kg/m ²	1400	kg/m ³	-	-	-	page 183

TECHNICAL NOTES: • It is always advisable to test the products on a limited area of the surface in order to verify any undesired reactions. • Before creating the holes for injection, it is recommended to use systems to avoid any other parts of the plaster from detaching due to interstitial pressure created when the compound is injected. • The diameter and spacing of the injection holes must be carefully assessed in accordance with the state of the plaster, its thickness, and the extent to which the plaster is detached from the surface. • In the event of particularly thick plaster, assess the need to insert mechanical connection elements, such as composite material rods.

FLUID REINFORCEMENT

STRUCTURAL REINFORCEMENTS



DESCRIPTION

Consolidation system for masonry of any form and type, consisting the injection of binding compounds. The system is particularly effective when applied to masonry characterised by widespread micro-cracking, portions with deteriorated or crumbly mortar, even deep set, and in the case of "a sacco" masonry with inconsistent inner layer.

SYSTEM FEATURES

- Resistant to degradation
- High breathability
- Compatible with period masonry
- With natural hydraulic lime NHL 5



COMPONENTS

1	JOINT SEALING	1A FORTE RIPARA	Structural mortar with natural hydraulic lime NHL 5	
		1B FORTE CALCE	Structural mortar in natural hydraulic lime NHL 5 for structural reinforcement	
2	BINDING COMPOUND	FORTE FLUID	Natural hydraulic lime NHL 5 compound for consolidation injection	
3	PLASTER OR PROTECTIVE TREATMENT	CIVIL CONSTRUCTION/ RESTORATION SYSTEMS	Complete with one of the Tassullo systems for civil construction or restoration	

Are you looking for the utmost compatibility with period materials?

FORTE CALCE

→ 100% Natural hydraulic lime NHL 5

Are you looking for maximum workability?

FORTE RIPARA

→ Mortar with natural hydraulic lime NHL 5

APPLICATION PHASES

PHASE 1

Preparation of the surface and sealing of joints

Remove any existing plaster and finish, clean the surface and seal the joints with FORTE CALCE or FORTE RIPARA.

PHASE 2

Drilling of the holes and positioning of the nozzles

Create the injection holes of a suitable diameter, depth and inclination to favour the effectiveness of the intervention. Then position the nozzles in the holes and seal them using FORTE CALCE or FORTE RIPARA.

eter, depth and inclination to favour the effectiveness of the intervention. Then position the nozzles in the holes and seal them using FORTE CALCE or FORTE RIPARA.

PHASE 3

Injection of the binding compound

Inject FORTE FLUID, beginning with the bottom-most nozzles and moving upwards.

PHASE 4

Completion of the system

Apply plaster and skim coat according to the indications of the chosen Civil Construction system. Alternatively, if working on exposed face masonry, apply consolidating and protective treatments according to the chosen Restoration system.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Incidence (kg/m ²)	Specific weight (kg/m ³)	Chloride content	Technical data
1A	FORTE CALCE	Bag	5	kg/m ²	5	1800 - 1900	< 0.05 %	page 116
1B	FORTE RIPARA	Bag	5	kg/m ²	5	1800 - 2000	< 0.05 %	page 119
2	FORTE FLUID	Bag	80	kg/m ³	-	1700 - 1800	< 0.05 %	page 119
3	CIVIL CONSTRUCTION / RESTORATION SYSTEMS	-	-	-	-	-	-	-

* Yield varies depending on masonry texture.

TECHNICAL NOTES: • The positioning, diameter, depth and inclination of the holes are to be defined based on the injectability of the wall. • In certain cases, it may be advisable to inject the wall from both sides. • The FLUID REINFORCEMENT SYSTEM is compatible with the subsequent application of vertical surface cladding or dehumidifying systems. It is recommended to treat exposed masonry with the LITHOS protective treatment from the TASSULLO ROMA line.



DESCRIPTION

System for the repairing and restoration of masonry of any type affected by the presence of poor, deteriorated, inconsistent or crumbly bedding mortar, through the partial removal and restoration of the existing mortar. Tassullo products guarantee chemical, physical and mechanical compatibility with period masonry and maximum durability of the intervention.

SYSTEM FEATURES

- Resistant to degradation
- High breathability
- Easy to apply
- Compatible with period masonry
- With natural hydraulic lime NHL 5



COMPONENTS

1	BEDDING MORTAR	1A FORTE RIPARA	Structural mortar with natural hydraulic lime NHL 5	
		1B FORTE CALCE	Structural mortar in natural hydraulic lime NHL 5 for structural reinforcement	
2	PROTECTIVE TREATMENT	LITHOS	Water-based breathable protective treatment	

Are you looking for the utmost compatibility with period materials?

FORTE CALCE

→ 100% Natural hydraulic lime NHL 5

Are you looking for maximum workability?

FORTE RIPARA

→ Mortar with natural hydraulic lime NHL 5

APPLICATION PHASES

PHASE 1

Removal of existing plaster

Remove any existing plaster and finishing and localise the sections of masonry that require intervention.

PHASE 2

Milling of the mortar joints

Mill the mortar joints to the necessary depth and clean the surfaces from any milling residuals.

PHASE 3

Restoration of the mortar joints

Restore the mortar joints with FORTE CALCE or FORTE RIPARA, using tools suitable for allowing deep penetration of the mortar. Finish the surface of the joints with techniques suited to obtaining the required visual effect.

PHASE 4

Application of the protective treatment

Apply the LITHOS protective treatment in the event that the wall is not to be subsequently plastered.

TECHNICAL DATA

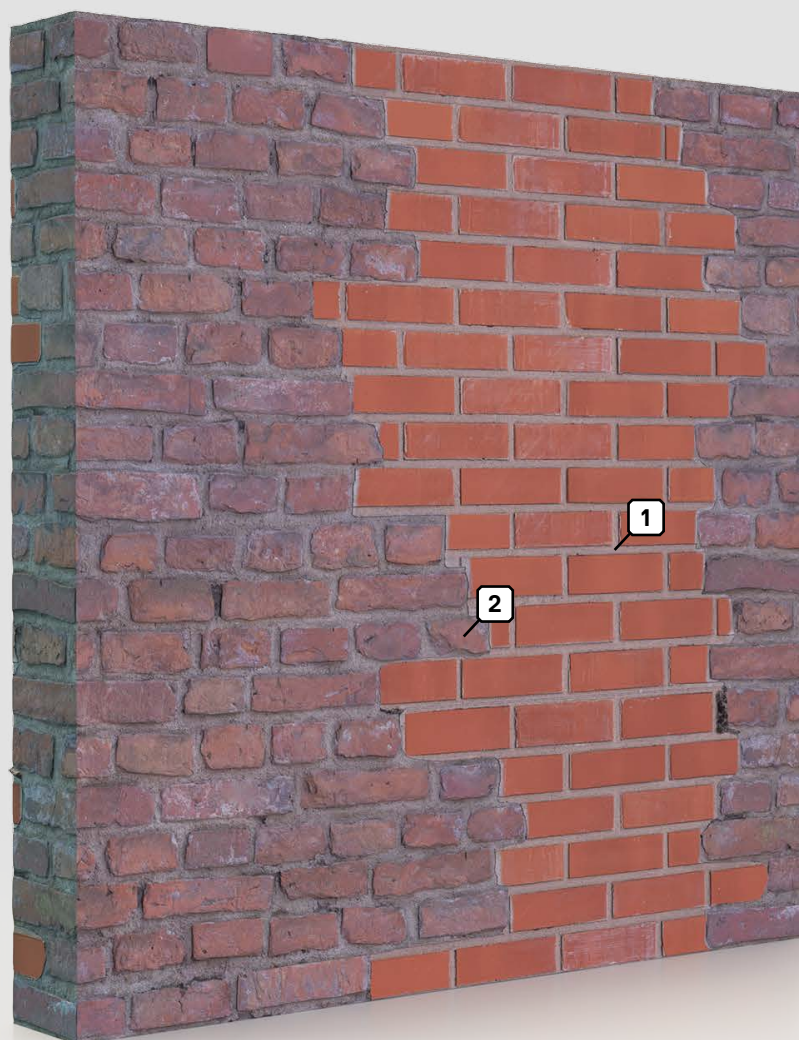
Component	Name	Packaging	* Yield	U.M.	Maximum grain size (mm)	Max. recommended thickness (mm)	Mass (kg/m³)	Chloride content	Technical data
1A	FORTE CALCE	Bag	10-30	kg/m²	2	40	1800 - 1900	< 0.05 %	page 116
1B	FORTE RIPARA	Bag	10-30	kg/m²	4	50	1800 - 2000	< 0.05 %	page 119
2	LITHOS	Canister	10	m²/l	-	-	-	-	page 164

* Yield varies depending on masonry texture and depth of cleared joints.

TECHNICAL NOTES: • PHASE 3 the restoration of masonries with regular texture can be carried out with the insertion of helical rods or cables in stainless steel incorporated into the mortar. • The REPAIR system is compatible with the subsequent application of vertical surface cladding or dehumidifying systems as an alternative to PHASE 4 • It is recommended to carry out PHASE 4 only when intervening on exposed masonry.

REPLACEMENT

STRUCTURAL REINFORCEMENTS



DESCRIPTION

Replacement system for the repair of masonry of any type affected by the presence of single-branch or limited lesions through localised demolition and reconstruction. Tas-sullo bedding mortars made with natural hydraulic lime NHL 5 guarantee chemical and physical compatibility with period masonry and utmost durability.

SYSTEM FEATURES

- Easy to apply
- Resistant to degradation
- High breathability
- Compatible with period masonry
- With natural hydraulic lime NHL 5



COMPONENTS

1	BEDDING MORTAR	1A FORTE RIPARA	Structural mortar with natural hydraulic lime NHL 5	
		1B FORTE CALCE	Structural mortar in natural hydraulic lime NHL 5 for structural reinforcement	
2	PROTECTIVE TREATMENT	LITHOS	Water-based breathable protective treatment	

Are you looking for the utmost compatibility with period materials?

FORTE CALCE

→ 100% Natural hydraulic lime NHL 5

Are you looking for maximum workability?

FORTE RIPARA

→ Mortar with natural hydraulic lime NHL 5

APPLICATION PHASES

PHASE 1

Removal of existing plaster

Remove any existing plaster and finishing and localise the sections of damaged masonry to be restored.

PHASE 2

Demolition of the damaged wall portion

Locally demolish the damaged masonry starting from the top and working down-

wards in small sections, in order to guarantee safety. Clean the resulting surfaces with a brush or low-pressure water.

PHASE 3

Reconstruction of the masonry

Restore the previously demolished masonry using resisting elements obtained from the previous demolition or new elements.

PHASE 4

Application of the protective treatment

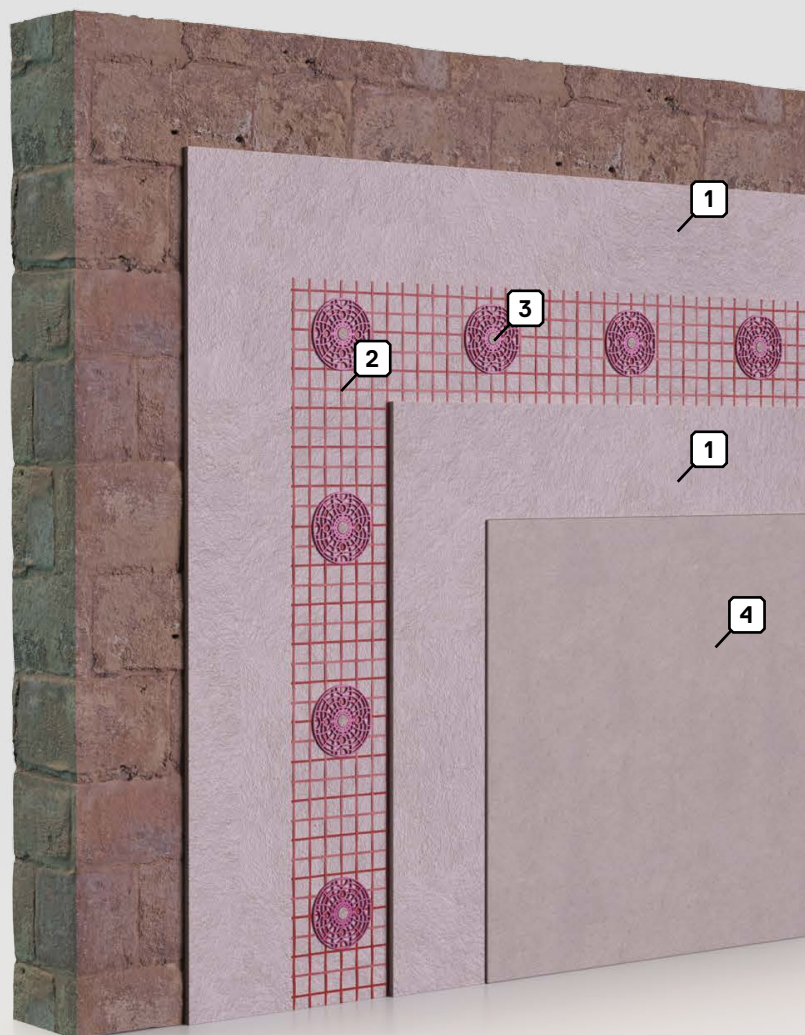
Apply the LITHOS protective treatment in the event that the wall is not to be subsequently plastered.

TECHNICAL DATA

Component	Name	Packaging	* Yield	U.M.	Maximum grain size (mm)	Solvent	Water absorption reduction	λ (W/mxK)	Technical data
1A	FORTE CALCE	Bag	12-35	kg/m ²	2	-	0 %	1.11	page 116
1B	FORTE RIPARA	Bag	12-35	kg/m ²	4	-	0 %	1.11	page 119
2	LITHOS	Canister	10	m ² /l	-	Water	72 %	-	page 164

* Yield varies according to wall thickness and masonry texture.

TECHNICAL NOTES: • During the demolition phase, create uneven surfaces in order to improve the restraining of the newly constructed masonry. • The REPLACEMENT SYSTEM is compatible with the subsequent application of vertical surface cladding or dehumidifying systems as an alternative to PHASE 4. • It is recommended to carry out the process described in PHASE 4 only when intervening on exposed masonry.



DESCRIPTION

CRM system made with natural hydraulic lime NHL 5 for the consolidation of buildings with standard geometries, suitable for brick, tuff, natural stone or mixed masonry. The system is effective in increasing the resistance and ductility of structural elements thanks to the use of composite-material mesh and structural mortars. It is not prone to durability issues and to problems related to poor construction details which are typical of traditional reinforced grouting made from concrete conglomerates and steel meshes.

SYSTEM FEATURES

- High strength
- Easy to apply
- Suitable for machine application
- Suitable for regular geometries
- With natural hydraulic lime NHL 5



COMPONENTS

1	STRUCTURAL MORTAR	1A FORTE CALCE	Structural mortar in natural hydraulic lime NHL 5 for structural reinforcement	
		1B FORTE MEC	Structural plaster with natural hydraulic lime NHL 5 for machine application	
		1C FORTE LIGHT	Lightweight structural mortar with natural hydraulic lime NHL 5	
2	MESH	2A ARMIS VETROAR 40X40	Bi-directional structural 40x40 mm² alkaline-resistant glass-fibre mesh	
		2B ARMIS VETROAR 40X40 FORTE	High resistance bi-directional structural 40x40 mm² alkaline-resistant glass-fibre mesh	
	CORNER PIECE	ARMIS ANGOLARE 40X40	Preformed 40x40 mm² corner piece in alkaline-resistant glass fibre	
3	CONNECTION SYSTEM	3A ARMIS ALL-IN-ONE	Structural connection system with alkaline-resistant fibreglass rod and high-resistance polyamide flange	
		3B ARMIS VETROAR FIOCCO OH	Structural connection system with alkaline-resistant unbraidable fibreglass connector	
		3C ARMIS VETROAR ELLE	Structural connection system with pre-formed L-shaped structural connector in alkaline-resistant fibreglass offering improved anchoring	
4	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	

Are you looking for the utmost compatibility with period materials?

FORTE CALCE

→ 100% Natural hydraulic lime NHL5

Are you looking for a product that is easy to apply?

FORTE MEC

→ Optimised for machine application

Do you want to avoid applying excessive weight to the existing structure?

FORTE LIGHT

→ Lightweight structural plaster

APPLICATION PHASES

PHASE 1

Preparation of the surface

Remove existing plaster and finishes to expose the structural part of the masonry. Drill holes to house the connectors and then clean and dampen the holes and the surfaces to which the system will be applied.

PHASE 2

Application of the first layer of structural mortar and positioning of the mesh

Apply the first layer of structural mortar to a thickness of 15-25 mm. Position the ARMIS VETROAR 40x40 mesh and ARMIS ANGOLARE 40x40 on the fresh structural mortar. Incorporate the elements in FRP into the mortar by applying slight pressure with a spatula.

PHASE 3

Connection system installation

Install the chosen connection system by following the specific application phases.

PHASE 4

Completion of the system

Apply the second layer of structural mortar to create an overall thickness of the reinforcement of between 30 and 50 mm. Complete by applying the skim plaster T A01 with a spatula.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m²)	μ	Sd (m)	λ (W/mxK)	Technical data
1A	FORTE CALCE	Bag	18	kg/(m²×cm)	3	54	15	0.45	1.11	page 105
1B	FORTE MEC	Bag	18	kg/(m²×cm)	3	54	15	0.45	1.11	page 106
1C	FORTE LIGHT	Bag	10	kg/(m²×cm)	3	30	5	0.15	0.45	page 106
4	T A01	Bag	3	kg/m²	0,3	3	11	0.03	0.61	page 164
					Tensile strength* (kN)	Axial stiffness** (kN)				
2A	ARMIS VETROAR 40x40	Roll	1.2	m²/m²	59	3920	-	-	-	page 111
2B	ARMIS VETROAR 40x40 FORTE	Roll	1.2	m²/m²	93	7130	-	-	-	page 112
2	ARMIS ANGOLARE 40x40	Box	1.2	m/m	37	-	-	-	-	page 109
3A	ARMIS ALL-IN-ONE	-	-	-	58	4096	-	-	-	page 66
3B	ARMIS VETROAR FIOCCO OH	-	4	pcs/m²	42	2460	-	-	-	page 67
3C	ARMIS VETROAR ELLE	-	4	pcs/m²	21	1044	-	-	-	page 67

Note: for information on yield for the ARMIS ALL-IN-ONE connection system and for data regarding resistance to extraction, see pages 66-67.

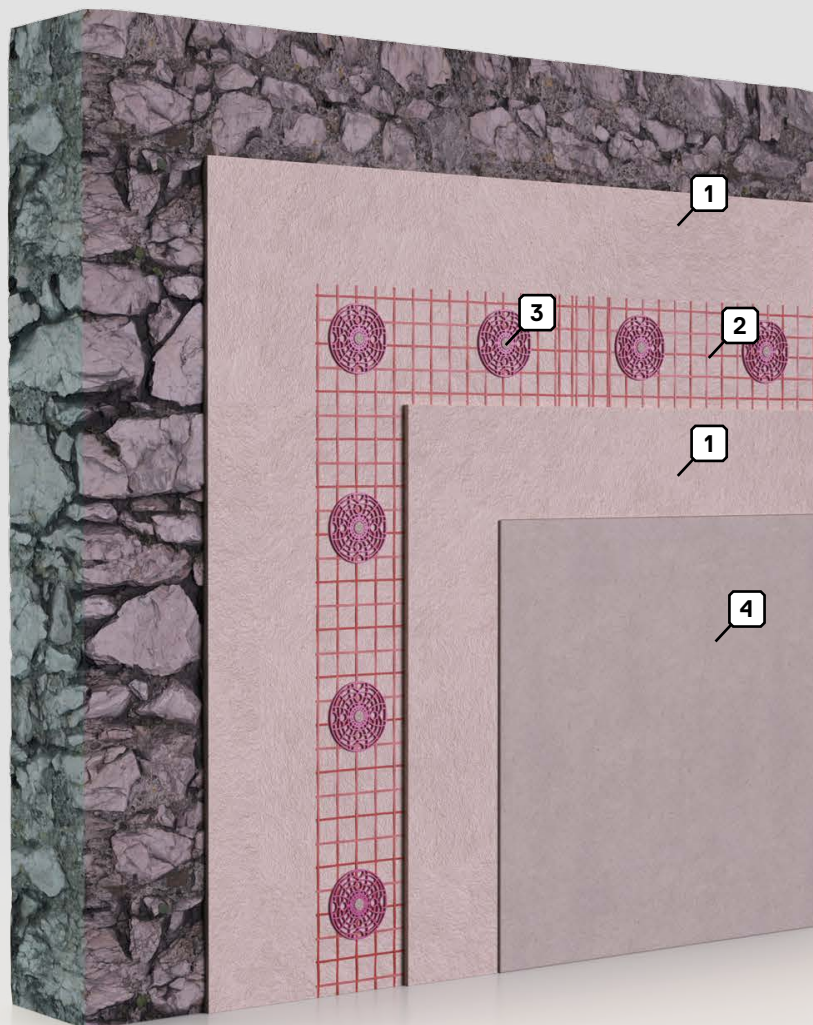
* Characteristic resistances, for the mesh reference is made to the tensile strength of a 1-metre-wide strip.

** Average axial stiffness, for the mesh reference is made to a 1-metre-wide strip.

TECHNICAL NOTES: • Once the reinforcement system has been positioned dehumidifying or thermal insulation systems can be applied. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • If the reinforcement system has been finished with plaster, it is recommended to use a specific rough-base coupling agent before applying the base-coat plaster.

CRM RESTORATION

STRUCTURAL REINFORCEMENTS



DESCRIPTION

CRM system made with natural hydraulic lime NHL 5 for the consolidation of buildings with irregular geometries, suitable for brick, tuff, natural stone or mixed masonry. The system is effective in increasing the resistance and ductility of structural elements, thanks to the use of composite-material mesh and structural mortars. It is not prone to durability issues and to problems related to poor construction details which are typical of traditional reinforced grouting made from concrete conglomerates and steel meshes.

SYSTEM FEATURES

- High strength
- Easy to apply
- High breathability
- Compatible with irregular masonry and geometries
- With natural hydraulic lime NHL 5



COMPONENTS

1	STRUCTURAL MORTAR	1A FORTE CALCE	Structural mortar in natural hydraulic lime NHL 5 for structural reinforcement	
		1B FORTE MEC	Structural plaster with natural hydraulic lime NHL 5 for machine application	
		1C FORTE LIGHT	Lightweight structural mortar with natural hydraulic lime NHL 5	
2	MESH	ARMIS VETROAR 50X50	Bi-directional structural 50x50 mm ² alkaline-resistant glass-fibre mesh	
3	CONNECTION SYSTEM	3A ARMIS ALL-IN-ONE	Structural connection system with alkaline-resistant fibreglass rod and high-resistance polyamide flange	
		3B ARMIS VETROAR FIOCCO OH	Structural connection system with alkaline-resistant unbraidable fibreglass connector	
		3C ARMIS VETROAR ELLE	Structural connection system with pre-formed L-shaped structural connector in alkaline-resistant fibreglass offering improved anchoring	
4	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	

Are you looking for the utmost compatibility with period materials?

FORTE CALCE

→ 100% Natural hydraulic lime NHL 5

Are you looking for a product that is easy to apply?

FORTE MEC

→ Optimised for machine application

Do you want to avoid applying excessive weight to the existing structure?

FORTE LIGHT

→ Lightweight structural plaster

APPLICATION PHASES

PHASE 1

Preparation of the surface

Remove existing plaster and finishes to expose the structural part of the masonry. Drill holes to house the connectors and then clean and dampen the holes and the surfaces to which the system will be applied.

PHASE 2

Application of the first layer of structural mortar and positioning of the mesh

Apply the first layer of structural mortar to

a thickness of 15-25 mm. Apply the ARMIS VETROAR 50x50 mesh to the fresh structural mortar, incorporating it into said mortar by applying slight pressure with a spatula.

PHASE 3

Connection system installation

Install the chosen connection system by following the specific application phases.

PHASE 4

Completion of the system

Apply the second layer of structural mortar to create an overall thickness of the reinforcement of between 30 and 50 mm. Complete by applying the skim plaster T A01 with a spatula.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1A	FORTE CALCE	Bag	18	kg/(m ² ×cm)	3	54	15	0.45	1.11	page 105
1B	FORTE MEC	Bag	18	kg/(m ² ×cm)	3	54	15	0.45	1.11	page 106
1C	FORTE LIGHT	Bag	10	kg/(m ² ×cm)	3	30	5	0.15	0.45	page 106
4	T A01	Bag	3	kg/m ²	0.3	3	11	0.03	0.61	page 164
					* Tensile strength (kN)	** Axial stiffness (kN)				
2	ARMIS VETROAR 50x50	Roll	1.2	m ² /m ²	54	3640	-	-	-	page 112
3A	ARMIS ALL-IN-ONE	-	-	-	58	4096	-	-	-	page 66
3B	ARMIS VETROAR FIOCCO OH	-	4	pcs/m ²	42	2460	-	-	-	page 67
3C	ARMIS VETROAR ELLE	-	4	pcs/m ²	21	1044	-	-	-	page 67

Note: for information on yield for the ARMIS ALL-IN-ONE connection system and for data regarding resistance to extraction, see pages 66-67.

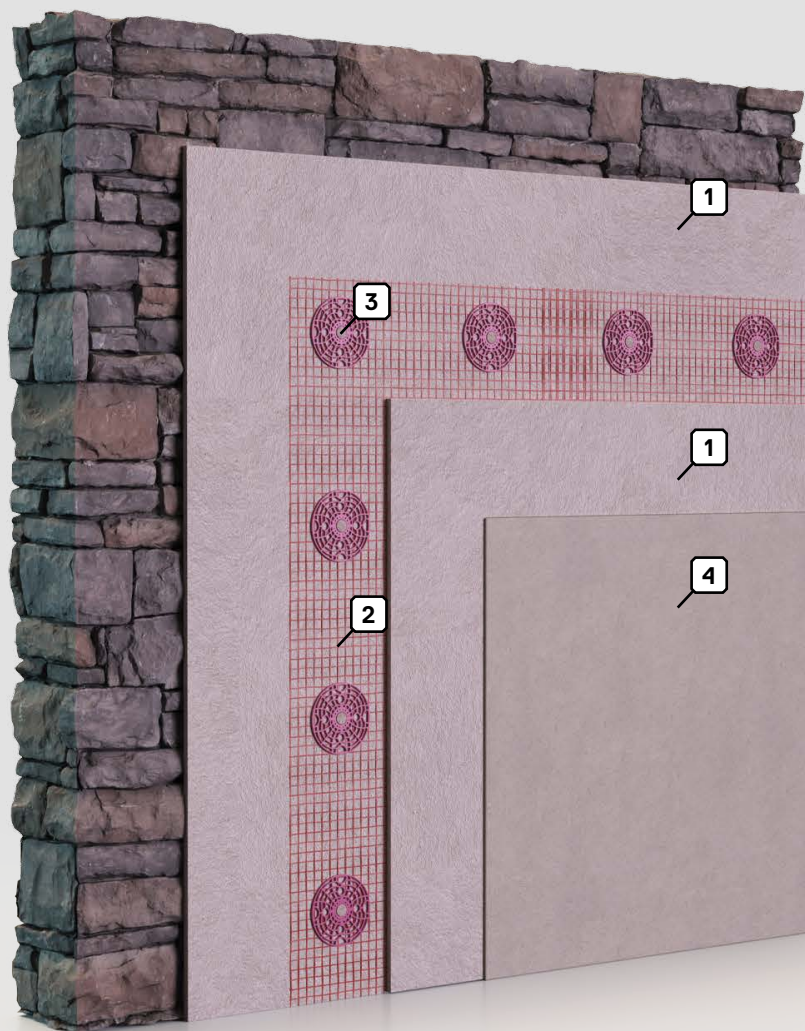
* Characteristic resistances, for the mesh reference is made to the tensile strength of a 1-metre-wide strip.

** Average axial stiffness, for the mesh reference is made to a 1-metre-wide strip.

TECHNICAL NOTES: • When using ARMIS VETROAR ELLE preformed connectors, the use of the VETROAR ELLE TOP partition patch is recommended. • Once the reinforcement system has been positioned dehumidifying or thermal insulation systems can be applied. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • In the event that the reinforcement system has been finished with plaster, it is recommended to use a specific rough-base coupling agent before applying the base-coat plaster.

FRCM MULTI

STRUCTURAL REINFORCEMENTS



DESCRIPTION

FRCM MULTI System made with natural hydraulic lime NHL 5 for the low-thickness consolidation of masonry walls and vaulted ceilings. The specific combination of Tassullo products allows for the durability and compatibility of the reinforcement to be maximised, guaranteeing elevated mechanical resistance and limiting increases in weight, with only a negligible increase in rigidity.

SYSTEM FEATURES

- High strength
- Suitable for machine application
- High breathability
- Compatible with irregular masonry
- With natural hydraulic lime NHL 5



COMPONENTS

1	MATRIX	FORTE MULTI	Structural mortar with natural hydraulic lime NHL 5 for composite structural reinforcement	
2	MESH	ARMIS VETROAR 20X20	Bi-directional structural 20x20 mm ² alkaline-resistant glass-fibre mesh	
3	CONNECTION SYSTEM	3A ARMIS ALL-IN-ONE	Structural connection system with alkaline-resistant fibreglass rod and high-resistance polyamide flange	
		3B ARMIS VETROAR FIOCCO OH	Structural connection system with alkaline-resistant unbraidable fibreglass connector	
4	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	

Do you have to consolidate a building exclusively with low-thickness systems?

FORTE MULTI

→Our structural plaster can be applied in thicknesses of less than 1 cm while still guaranteeing consolidation works of the utmost safety, resistance and durability

APPLICATION PHASES

PHASE 1

Preparation of the surface

Remove existing plaster and finishes to expose the structural part of the masonry, avoiding damage to the substrate. If required, drill holes to house the connectors and then dampen the substrate.

PHASE 2

Application of the first layer of matrix and positioning of the mesh

Apply the first layer of FORTE MULTI to a thickness of 4-6 mm. Position the ARMIS

VETROAR 20x20 mesh, incorporating it into the first layer of FORTE MULTI while it is still fresh.

PHASE 3

Connection system installation

Install the chosen connection system by following the specific application phases.

PHASE 4

Completion of the system

Apply the second layer of FORTE MULTI to create an overall thickness of the reinforce-

ment of between 8 and 12 mm, not including levelling of the surface. Complete by applying the skim plaster T A01 with a spatula.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Tensile strength* (kN)	Bond strength** (kN)	λ (W/mxK)	Technical data
1	FORTE MULTI	Bag	18	kg/(m ² ×cm)	-	-	0.82	page 107
2	ARMIS VETROAR 20x20	Roll	1.3	m ² /m ²	32	31	-	page 111
3A	ARMIS ALL-IN-ONE	-	-	-	58	-	-	page 66
3B	ARMIS VETROAR FIOCCO OH	-	4	pcs/m ²	42	-	-	page 67
4	T A01	Bag	3	kg/m ²	-	-	0.61	page 67

Note: for information on yield for the ARMIS ALL-IN-ONE connection system and for data regarding resistance to extraction, see pages 66-67.

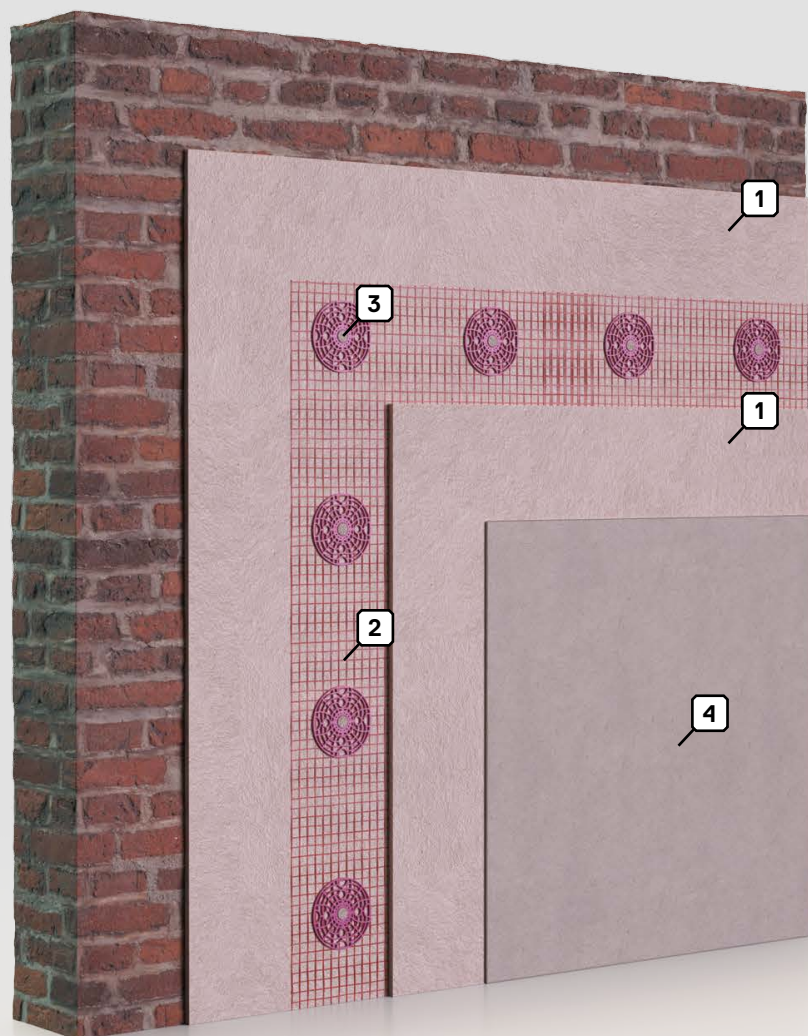
*Characteristic resistances, for the meshes reference is made to the tensile strength of the corresponding anchoring and 1-metre-wide mesh strip.

** Characteristic resistance to delamination of the corresponding anchoring, measured for the 1-metre-wide strip as an average of the standard surfaces.

TECHNICAL NOTES: • Once the reinforcement system has been positioned dehumidifying or thermal insulation systems can be applied. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • In the event that the reinforcement system has been finished with plaster, it is recommended to use a specific rough-base coupling agent before applying the base-coat plaster.

FRCM RESTORATION

STRUCTURAL REINFORCEMENTS



DESCRIPTION

FRCM system made with natural hydraulic lime NHL 5 for the low-thickness consolidation of masonry walls and vaulted ceilings, optimised to maximise compatibility with period construction materials. The specific combination of Tassullo products allows for the durability and compatibility of the reinforcement to be maximised, guaranteeing elevated mechanical resistance and limiting increases in weight, with only a negligible increase in rigidity.

SYSTEM FEATURES

- High strength
- High breathability
- Compatible with period masonry
- Resistant to salt and degradation
- 100% natural hydraulic lime NHL 5



COMPONENTS

1	MATRIX	FORTE RASO	Structural skim plaster in natural hydraulic lime NHL 5 for composite structural reinforcement	
		2A ARMIS VETROAR 20X20	Bi-directional structural 20x20 mm ² alkaline-resistant glass-fibre mesh	
2	MESH	2B ARMIS VETROAR 16X16	Bi-directional structural 16x16 mm ² alkaline-resistant glass-fibre mesh	
		2C ARMIS BASALTO 20X20	Bi-directional structural 20x20 mm ² basalt-fibre and steel mesh	
3	CONNECTION SYSTEM	3A ARMIS ALL-IN-ONE	Structural connection system with alkaline-resistant fibreglass rod and high-resistance polyamide flange	
		3B ARMIS VETROAR FIOCCO OH	Structural connection system with alkaline-resistant unbraidable fibreglass connector	
4	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	

Do you require good mechanical resistance?

ARMIS VETROAR 20x20

→ Medium-weight mesh

Do you require high mechanical resistance?

ARMIS VETROAR 16x16

→ High mechanical performance

Are you looking for reinforcement in basalt fibre?

ARMIS BASALTO 20x20

→ Basalt fibre

APPLICATION PHASES

PHASE 1

Preparation of the surface

Remove existing plaster and finishes to expose the structural part of the masonry, avoiding damage to the substrate. If required, create holes to house the connectors and then dampen the substrate.

PHASE 2

Application of the first layer of matrix and positioning of the mesh

Apply the first layer of FORTE RASO to a thickness of 4-6 mm. Position the mesh, incor-

porating it into the first layer of FORTE RASO while it is still fresh.

PHASE 3

Connection system installation

Install the chosen connection system by following the specific application phases.

PHASE 4

Completion of the system

Apply the second layer of FORTE RASO matrix to create an overall thickness of the reinforcement of between 8 and 12 mm, not

including levelling of the surface. Complete by applying the skim plaster T A01 with a spatula.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Tensile strength* (kN)	Bond strength** (kN)	λ (W/mxK)	Technical data
1	FORTE RASO	Bag	12	kg/m ²	-	-	0.82	page 107
2A	ARMIS VETROAR 20x20	Roll	1.3	m ² /m ²	37	37	-	page 111
2B	ARMIS VETROAR 16x16	Roll	1.3	m ² /m ²	70	60	-	page 110
2B	ARMIS BASALTO 20x20	Roll	1.3	m ² /m ²	41	37	-	page 109
3A	ARMIS ALL-IN-ONE	-	-	-	58	-	-	page 66
3B	ARMIS VETROAR FIOCCO OH	-	4	pcs/m ²	42	-	-	page 67
4	T A01	Bag	3	kg/m ²	-	-	0.61	page 164

Note: for information on yield for the ARMIS ALL-IN-ONE connection system and for data regarding resistance to extraction, see pages 66-67.

*Characteristic resistances, for the meshes reference is made to the tensile strength of the corresponding anchoring and 1-metre-wide mesh strip.

** Characteristic resistance to delamination of the corresponding anchoring, measured for the 1-metre-wide strip as an average of the standard surfaces.

TECHNICAL NOTES: • Once the reinforcement system has been positioned dehumidifying or thermal insulation systems can be applied. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • In the event that the reinforcement system has been finished with plaster, it is recommended to use a specific rough-base coupling agent before applying the base-coat plaster.

Connection system

Are you looking for a versatile connection system?

ARMIS ALL-IN-ONE

→ Compatible with CRM and FRCM systems and walls of any thickness

Are you looking for a simple solution for single-side CRM systems?

ARMIS VETROAR ELLE

→ Single pre-formed connection element

Are you looking for a system that takes up minimal space?

ARMIS VETROAR FIOCCO OH

→ Low-thickness unbraidable end

SYSTEM COMPATIBILITY

	CRM	CRM RESTORATION	FRCM MULTI	FRCM RESTORATION	BOX REINFORCEMENT
ARMIS ALL-IN-ONE	✓	✓	✓	✓	✓
ARMIS VETROAR ELLE	✓	✓			
ARMIS VETROAR FIOCCO OH	✓	✓	✓	✓	✓

ARMIS ALL-IN-ONE



CONNECTOR

ARMIS ALL-IN-ONE

Structural connector made with high-resistance fibreglass bar and polyamide flange

ANCHORING

ARMIS BFLUID CONNECT

Natural hydraulic lime NHL 5 compound for fixing connectors

ANCHORING

RESINA VE

Styrene-free bicomponent vinyl-ester resin in cartridges

TECHNICAL DATA

Name	Packaging	Yield	U.M.	Tensile strength (kN)	Axial stiffness (kN)	Pull-out strength (kN)			Technical data
						Brick	Tuff	Stone	
ARMIS STRONG BAR	Box	See dedicated table		58	4096	-	-	-	page 123
ARMIS STRONG BLOCK	Box	4	pcs/m ²	-	-	-	-	-	page 123
ARMIS BFLUID CONNECT	Bag	0.2*	kg/hole	-	-	15.9	11.5	11.2	page 116
RESINA VE	Cartridge	30*	ml/hole	-	-	15.3	12.5	15.6	page 119

*Note: RESINA VE yield is calculated on the basis of the length of the ARMIS STRONG BAR segment used.

ARMIS STRONG BAR YIELD

Table for optimising the yield of 120-cm-long ARMIS STRONG BAR in accordance with the thickness of the masonry. Application on one side only.

Masonry thickness (cm)	18-22	22-30	30-35	35-50	50-70	70-110
Length of ARMIS STRONG BAR segment (cm)	15	20	24	30	40	60
No. segments/120-cm bar	8	6	5	4	3	2
Incidence (bars/m ²)	0.5	0.67	0.8	1	1.3	2

Note: incidence calculated for 4 connectors/m²

ARMIS VETROAR ELLE



CONNECTOR

ARMIS VETROAR ELLE

Preformed L-shaped alkaline-resistant glass-fibre connector with improved adherence

ANCHORING

ARMIS BFLUID CONNECT

Natural hydraulic lime NHL 5 compound for fixing connectors

CONNECTOR

ARMIS VETROAR ELLE TOP

Circular reinforcement section in polyamide, mesh 30×30 mm²

TECHNICAL DATA

Name	Packaging	Yield	U.M.	Tensile strength (kN)	Axial stiffness (kN)	Pull-out strength (kN)			Technical data
						Brick	Tuff	Stone	
ARMIS VETROAR ELLE	Box	4	pcs/m ²	21	1044	-	-	-	page 117
ARMIS BFLUID CONNECT	Bag	0.2	kg/hole	-	-	15.11	13.50	12.36	page 116
ARMIS VETROAR ELLE TOP	Box	4	pcs/m ²	-	-	-	-	-	page 117

Note: assessment of resistance to extraction from standard supports based on an anchoring length of 160 mm.

ARMIS VETROAR FIOCCO OH



CONNECTOR

ARMIS VETROAR FIOCCO OH

8-mm diameter alkaline-resistant glass-fibre connector with one end unbraidable

ANCHORING

ARMIS BFLUID CONNECT

Natural hydraulic lime NHL 5 compound for fixing connectors

TECHNICAL DATA

Name	Packaging	Yield	U.M.	Tensile strength (kN)	Axial stiffness (kN)	Pull-out strength (kN)			Technical data
						Brick	Tuff	Stone	
ARMIS VETROAR FIOCCO OH	Box	4	pcs/m ²	42	2460	-	-	-	page 118
ARMIS BFLUID CONNECT	Bag	0.2	kg/hole	-	-	10.68	8.01	12.37	page 116

Note: assessment of resistance to extraction from standard supports based on an anchoring length of 160 mm.

RELATED PRODUCTS

The Tassullo Injection Machine facilitates application of the ARMIS ALL-IN-ONE connection system and is available for either purchase or hire.

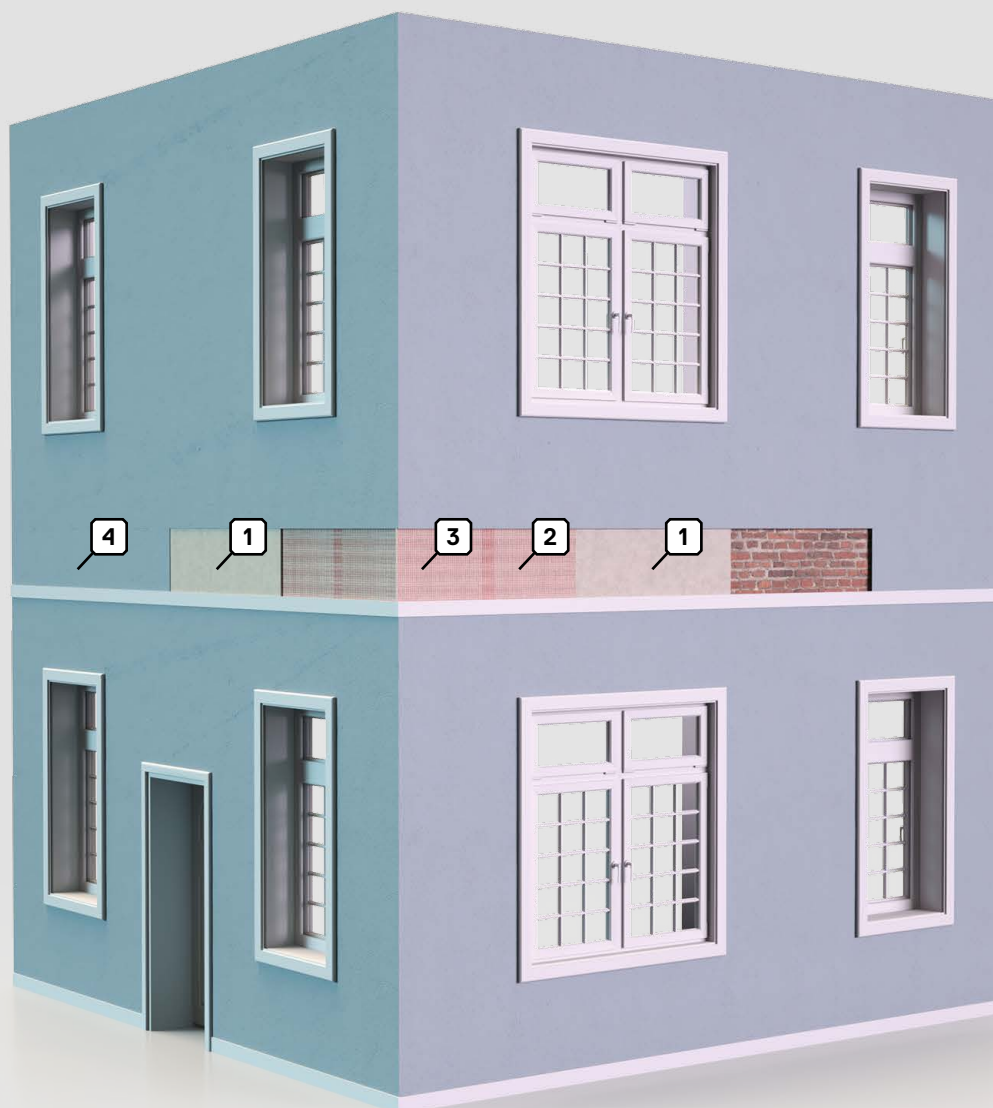
INJECTION MACHINE

page 167



BOX REINFORCEMENT

STRUCTURAL REINFORCEMENTS



DESCRIPTION

Perimeter wrapping system for buildings constructed in masonry with FRM or FRP technology. The system is suitable for the consolidation of buildings characterised by poor restraining between the orthogonal walls and that require the implementation of stress-resistant elements to inhibit localised mechanisms concerning the instability of walls. The specific combination of Tassullo products allows for the durability and compatibility of the reinforcement to be maximised, guaranteeing elevated mechanical resistance and limiting increases in weight.

SYSTEM FEATURES

- Elevated resistance
- Easy to apply
- Compatible with period masonry
- Reduced thicknesses
- Elevated adhesive strength

100%
NATURAL
LIME



COMPONENTS

1	MATRIX	1A FORTE RASO	Structural skim plaster in natural hydraulic lime NHL 5 for composite structural reinforcement	
		1B CARBON EPOX	Bi-component epoxy resin for FRP systems	
		2A ARMIS VETROAR 16X16	Bi-directional structural 16x16 mm ² alkaline-resistant glass-fibre mesh	
2	MESH/FABRIC	2B ARMIS CARBON 300	High-resistance unidirectional carbon-fibre fabric for FRP systems, mass 322 g/m ²	
		2C ARMIS CARBON 600	High-resistance unidirectional carbon-fibre fabric for FRP systems, mass 606 g/m ²	
		3A ARMIS ALL-IN-ONE	Structural connection system with alkaline-resistant fibreglass rod and high-resistance polyamide flange	
3	CONNECTION SYSTEM	3B ARMIS VETROAR FIOCCO OH	Structural connection system with alkaline-resistant unbraidable fibreglass connector	
		3C ARMIS CARBON JOINT	Unidirectional carbon-fibre cord for structural connections	
		T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	
4	REINFORCED SKIM PLASTER	RETE 160	Alkaline-resistant glass-fibre mesh for reinforced skim plaster	

Are you looking for the utmost compatibility with period materials?

FORTE RASO
ARMIS VETROAR 16x16
ARMIS ALL-IN-ONE

→ 100% natural hydraulic lime

Do you require high mechanical resistance?

CARBON EPOX
ARMIS CARBON 300
ARMIS CARBON 600
ARMIS CARBON JOINT

→ High mechanical performance

APPLICATION PHASES

PHASE 1

Preparation of the support surface

Remove existing plaster and finishes to expose the structural part of the masonry, avoiding damage to the support. If required, create holes to house the connectors and then prepare the support. Only if an FRP system is to be applied, smooth the wrapping application surface with RENOVA.

PHASE 2

Application of the first layer of matrix

Apply the first layer of matrix to the thickness required by the specific system.

PHASE 3

Positioning of the mesh or fabric

Position the mesh or fabric on the first layer of matrix while it is still wet.

PHASE 4

Installation of the connection system

Install the chosen connection system by following the specific application phases.

PHASE 5

Completing the system

Apply the second layer of matrix. If using an FRP system, also dust the surface with SABBIA DI FIUME. Subsequently apply the reinforced skim plaster with T A01 and RETE 160.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Tensile strength (kN)	Rigidity	Technical data
1A	FORTE RASO	Bag	12	kg/m ²	-	-	page 118
1B	CARBON EPOX	Bucket	1.1	kg/(m ² xmm)	-	-	page 115
		Canister					
2A	ARMIS VETROAR 16x16	Roll	1	m ² /m ²	35	-	page 121
2B	ARMIS CARBON 300	Roll	1	m ² /m ²	46	3591	page 135
2C	ARMIS CARBON 600	Roll	1	m ² /m ²	89	6909	page 135
3A	ARMIS ALL-IN-ONE	-	-	-	58	-	page 137
3B	ARMIS VETROAR FIOCCO OH	-	4	pz/m ²	42	-	page 131
3C	ARMIS CARBON JOINT	Roll	-	-	111		page 130
4	T A01	Bag	6	kg/m ²	-	-	page 180
	RETE 160	Roll	1.1	m ² /m ²	-	-	page 179

Note: for information on yield for the ARMIS ALL-IN-ONE connection system and for data regarding resistance to extraction, see pages 66-67. • The yield for CARBON JOINT, for mesh and fabrics, depends on the geometric configuration of the reinforcement.

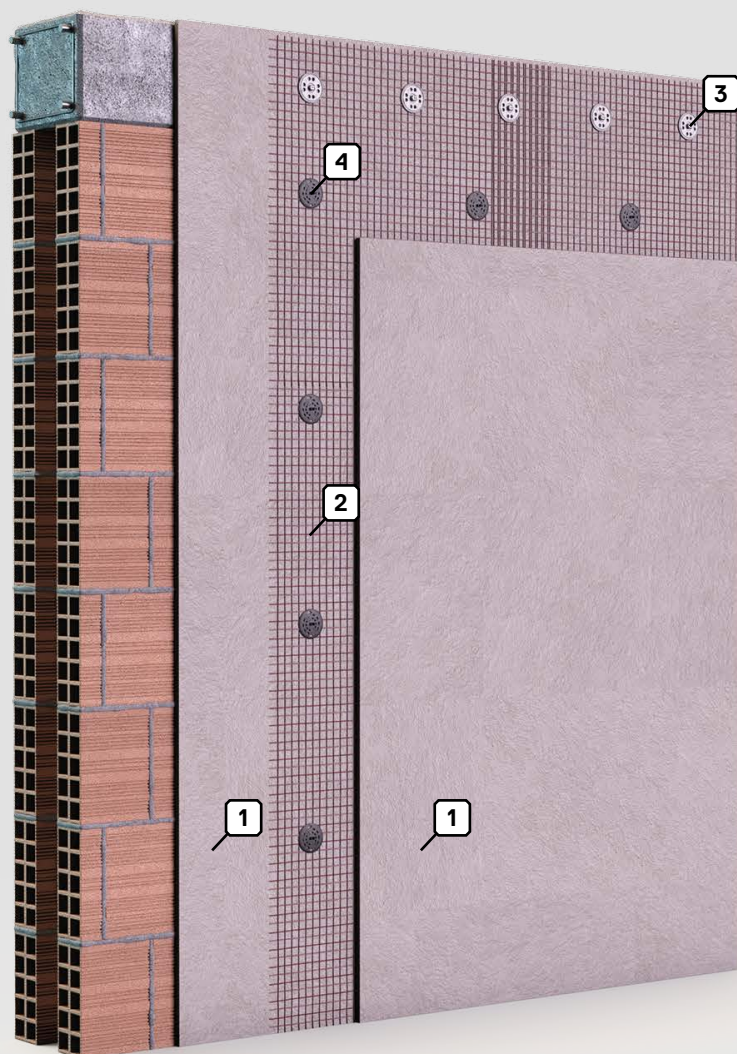
* Nominal value relative to the composite fabric + CARBON EPOX FRP system per individual layer applied, assessed for a strip of 10 cm in width. • Characteristic value relative to the composite mesh + matrix FRCM system, assessed for a strip of 50 cm in width. • Nominal value relative to CARBON JOINT with a section of 10 mm.

** Nominal value relative to the composite fabric + CARBON EPOX FRP system per individual layer applied.

TECHNICAL NOTES: • Any dehumidifying or thermal insulation systems can be applied once the reinforcement system has been positioned. • In the event that the reinforcement system has been finished with plaster, it is recommended to use a specific rough-base coupling agent before applying the base-coat plaster. • If the intervention allows, it is recommended to apply the reinforced skim plaster to the entire surface, in order to guarantee the uniformity of the layer of finishing.

SAVE WALL

STRUCTURAL REINFORCEMENTS



DESCRIPTION

Stability systems for non-load-bearing partition walls in buildings with reinforced concrete frames. The system is effective for the securing of non-structural elements in masonry of all types. The available range of components to choose from renders the system suitable for different types of intervention in terms of resistance and configuration of existing structures.

SYSTEM FEATURES

- Versatile system
- Easy to apply
- Applicable by machine
- High breathability
- With natural hydraulic lime NHL 5



COMPONENTS

1	MATRIX	1A FORTE RASO	Structural skim plaster in natural hydraulic lime NHL 5 for composite structural reinforcement	
		1B FORTE MULTI	Structural mortar with natural hydraulic lime NHL 5 for composite structural reinforcement	
2	CONTAINMENT MESH	2A ARMIS VETROAR 20X20	Bi-directional structural 20x20 mm ² alkaline-resistant glass-fibre mesh	
		2B ARMIS BASALTO 25X25	Bi-directional 25x25 mm ² basalt-fibre mesh	
3	CONNECTION WITH CONCRETE FRAME	3A VITE CLS + FLANGIA	Self-threading screws for concrete and masonry diameter 7.5 mm, length 100 mm + 70-mm diameter metal washer	
		3B ARMIS VETROAR FIOCCO OH1 + RESINA VE	8-mm diameter alkaline-resistant glass-fibre connector with one end unbraidable + Styrene-free bi-component vinyl-ester resin in cartridges of 400 ml	
4	CONNECTION WITH THE INFILL WALL	VORTEX + VORTEX BLOCK	High mechanical performance helical AISI 304 stainless steel rod + Polypropylene and glass-fibre flange for fixing the ends of helical rods	

Do you need to apply to existing plaster or finishes? FORTE RASO → Highly adhesive	Are you applying to brick surfaces? FORTE MULTI → High workability	Are the structures flush with the infill wall? VITE CLS + FLANGIA → Rapid application	Is the frame set back from the infill wall? ARMIS VETROAR FIOCCO OH1 + RESINA VE → Variable-depth fixing
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APPLICATION PHASES

PHASE 1

Preparation of the surface

In the case of application with FORTE RASO, clean the surfaces and remove any decohesive or detached sections. In the case of application with FORTE MULTI, remove existing plaster and finishes. In both cases, assess the need to use T PRIMER consolidating/fixing treatment.

PHASE 2

Spreading of the first layer of matrix and positioning of the containment mesh

Apply the first layer of matrix to a thickness of 4-6 mm. Position the containment mesh

and incorporate it into the fresh matrix, applying slight pressure.

PHASE 3

Installation of connection with the RC frame

Drill holes in the RC frame of a diameter and depth suited to the type of connection chosen. Clean the holes and insert the connection system.

PHASE 4

Installation of connection to the infill wall

Drill holes in the infill wall of a depth suited to the type of connection. Clean the holes and

insert the helical bar. Seal the connection with the application of the VORTEX BLOCK fixing flange.

PHASE 5

Spreading of the second layer of matrix

Apply the second layer of matrix to completely cover the elements installed in the previous phases, creating an overall thickness of the system of between 8 and 12 mm.

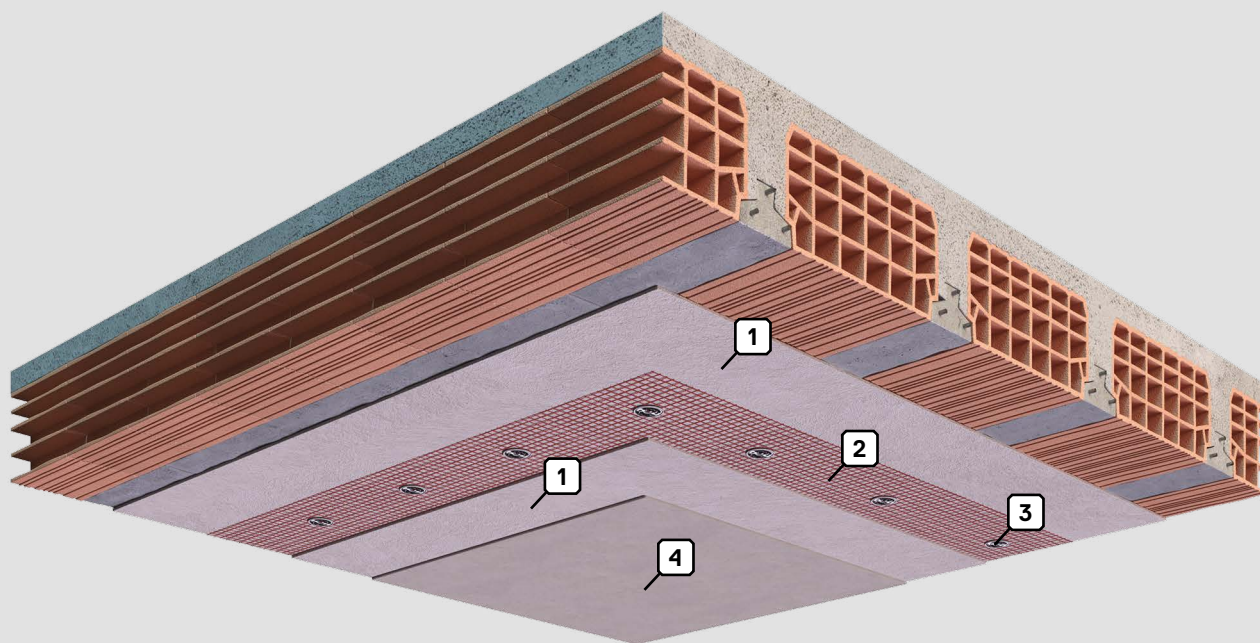
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Tensile strength (kN)	Mesh weight (g/m ²)	λ (W/mxK)	Technical data
1A	FORTE RASO	Bag	12	kg/m ²	-	-	0.82	page 118
1B	FORTE MULTI	Bag	18	kg/(m ² ×cm)	-	-	1.11	page 118
2A	ARMIS VETROAR 20x20	Roll	1.2	m ² /m ²	55	320	-	page 122
2B	ARMIS BASALTO 25x25	Roll	1.2	m ² /m ²	50	220	-	page 121
3A	VITE CLS	Box	3	pcs/m	22	-	-	page 133
	FLANGIA	Box	3	pcs/m	-	-	-	page 132
3B	ARMIS VETROAR FIOCCO OH1	Box	3	pcs/m	42	-	-	page 131
	RESINA VE	Cartridge	30	ml/m	-	-	-	page 133
4	VORTEX	Box	1.3	m/m ²	1.2	-	-	page 134
	VORTEX BLOCK	Box	4	pcs/m ²	-	-	-	page 134

* The yield of the connectors and anchoring is related to the application of 3 connections per linear metre of beams/pillars. The yield of VORTEX is relative to laying 4 connections of 30 cm length each per square metre.

** For meshes, the strength refers to the 1-metre-wide strip. For VORTEX the value refers to the 8 mm diameter rod.

TECHNICAL NOTES: • If insulation systems are not to be used, it is recommended to complete the layers with the application of reinforced skim plaster with products from the TASSULLO WALL line and mineral finishes with products from the TASSULLO CREA line.



DESCRIPTION

Anti-debonding system for RC floors with hollow filling clay elements, suitable for securing against the detachment of filling elements. The system consists of a mesh of composite material embedded in a structural matrix and connected to the load-bearing elements of the floor via a specific dry connection system that is easy and quick to install.

SYSTEM FEATURES

- Versatile system
- Easy to apply
- Applicable by machine
- Limited weight increments
- High breathability



COMPONENTS

1	MATRIX	1A FORTE RASO	Structural skim plaster in natural hydraulic lime NHL 5 for composite structural reinforcement	
		1B FORTE MULTI	Structural mortar with natural hydraulic lime NHL 5 for composite structural reinforcement	
2	CONTAINMENT MESH	2A ARMIS VETROAR 20X20	Bi-directional structural 20x20 mm ² alkaline-resistant glass-fibre mesh	
		2B ARMIS BASALTO 25X25	Bi-directional 25x25 mm ² basalt-fibre mesh	
3	CONNECTION	VITE CLS	Self-threading screws for concrete and masonry diameter 7.5 mm, length 100 mm	
		FLANGIA	70-mm diameter metal washer	
4	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	

Do you need to apply to existing plaster or finishes?

FORTE RASO

→ Highly adhesive

Are you applying to unfinished surfaces?

FORTE MULTI

→ Highly workable

APPLICATION PHASES

PHASE 1

Preparation of the surface

In the case of application with FORTE RASO, clean the surfaces and remove any decohesive or detached sections. In the case of application with FORTE MULTI, remove existing plaster and finishes. In both cases, assess the need to use T PRIMER consolidating/fixing treatment..

PHASE 2

Spreading of the first layer of matrix and positioning of the containment mesh

Apply the first layer of matrix to a thickness

of 4-6 mm. Position the containment mesh and incorporate it into the fresh matrix, applying slight pressure.

PHASE 3

Installation of connection

Drill holes in the joists of a diameter and depth suited to the form of application. Clean the holes and insert the connection system.

PHASE 4

Spreading of the second layer of matrix

Apply the second layer of matrix to completely cover the elements installed in the

previous phases, creating an overall thickness of the system of between 8 and 12 mm.

PHASE 5

Application of the skim plaster

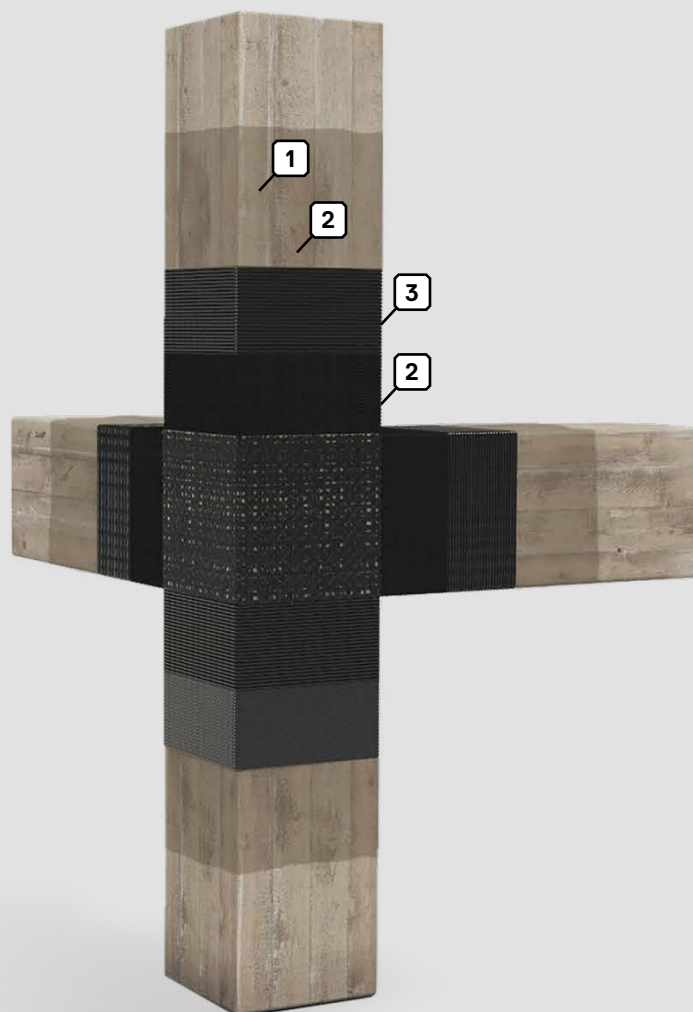
Complete by applying the skim plaster T A01 with a spatula.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Tensile strength (kN)	Mesh weight (g/m ²)	λ (W/mxK)	Technical data
1A	FORTE RASO	Bag	12	kg/m ²	-	-	0.82	page 118
1B	FORTE MULTI	Bag	18	kg/(m ² ×cm)	-	-	1.11	page 118
2A	ARMIS VETROAR 20x20	Roll	1.2	m ² /m ²	55	320	-	page 122
2B	ARMIS BASALTO 25x25	Roll	1.2	m ² /m ²	50	220	-	page 121
3	VITE CLS	Box	4	pcs/m ²	22	-	-	page 133
	FLANGIA	Box	4	pcs/m ²	-	-	-	page 132
4	T A01	Bag	3	kg/m ²	-	-	0.61	page 184

* For meshes, the strength refers to the 1-metre-wide strip.

TECHNICAL NOTES: • According to the level of finish required, the product T A01 can be substituted with the extremely fine T A00 or medium T A02 finishes with a maximum grain size of 0.5 mm and 2 mm respectively. • If a reinforced skim plaster is required, it is possible to use the specific RETE 160 from the TASSULLO WALL line in combination with the skim plaster. • It is recommended to complete the layers with a natural hydraulic lime finish from the TASSULLO CREA line.

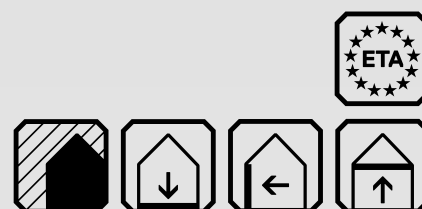


DESCRIPTION

FRP cladding system impregnated onsite with epoxy resin for the reinforcing of structural elements in reinforced concrete such as beams, pillars and floor joists in concrete and masonry. The specific combination of Tassullo products allows the durability of the reinforcement to be fully exploited, guaranteeing elevated mechanical resistance and limited increases in weight and offering extreme flexibility in terms of application to the varying geometry of nodes and structural elements.

SYSTEM FEATURES

- Elevated resistance
- Versatile system
- Reduced thicknesses
- Elevated adhesive strength
- Rapid application



COMPONENTS

1	PRIMER	CARBON FIX	Bi-component epoxy primer for FRP systems
2	MATRIX	CARBON EPOX	Bi-component epoxy resin for FRP systems
3	FABRIC	3A ARMIS CARBON 300	High-resistance unidirectional carbon-fibre fabric for FRP systems, mass 322 g/m ²
		3B ARMIS CARBON 600	High-resistance unidirectional carbon-fibre fabric for FRP systems, mass 606 g/m ²
		3C ARMIS CARBON QUAD	High-resistance quadriaxial carbon-fibre fabric for FRP systems, mass 390 g/m ²

Do you require good mechanical resistance? ARMIS CARBON 300 → Medium-weight fabric	Do you require high mechanical resistance? ARMIS CARBON 600 → High mechanical performance	Do you need to reinforce a non-confined node? ARMIS CARBON QUAD → Quadriaxial fabric
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APPLICATION PHASES

PHASE 1 Preparation of the support surface Prepare the support for application of the system by removing any dust, release agents or loose parts, eliminate any crests or bulging in the framework and smooth any sharp corners on the concrete elements. If necessary, apply the CARBON FIX epoxy primer with a roller or brush.	PHASE 3 Applying the fabric Position the fabric onto the matrix while the latter is still fresh, avoiding the formation of wrinkles. Anchor the fabric by flattening it onto the first layer of matrix, pressing it with a suitable roller.	PHASE 5 Completing the system If additional layers of fabric are to be applied, repeat stages 3 and 4, applying while the previous coat is still fresh, up to a maximum of 3 layers. Once the fabric has been applied and impregnated, it should no longer be handled. If successive plaster or reinforcing skim coat is required, apply a dusting of SABBIA DI FIUME 1.5 mm while still fresh.
PHASE 2 Applying the first coat of matrix Apply a first even layer of CARBON EPOX with a roller or brush to a thickness of approximately 0.5 mm.	PHASE 4 Applying the second coat of matrix Fully saturate the fabric with an additional coat of CARBON EPOX applied with a roller, making sure that the fabric is properly and evenly impregnated and that any air bubbles formed during the previous steps are eliminated.	

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Weave	Performance class	Tensile strength (kN/10 cm)	Rigidity (kN/10 cm)	Technical data
1	CARBON FIX	Latta Tanica	0,15	kg/m ²	-	-	-	-	page 115
2	CARBON EPOX	Bucket Canister	1,10	kg/(m ² mm)	-	-	-	-	page 115
3A	ARMIS CARBON 300	Roll	1	m/m	Unidirectional	210 C	46,17	3591	page 135
3B	ARMIS CARBON 600	Roll	1	m/m	Unidirectional	210 C	88,83	6909	page 135
3C	ARMIS CARBON QUAD	Roll	1	m ² /m ²	Quadriaxial	210 C	14,25	1109	page 136

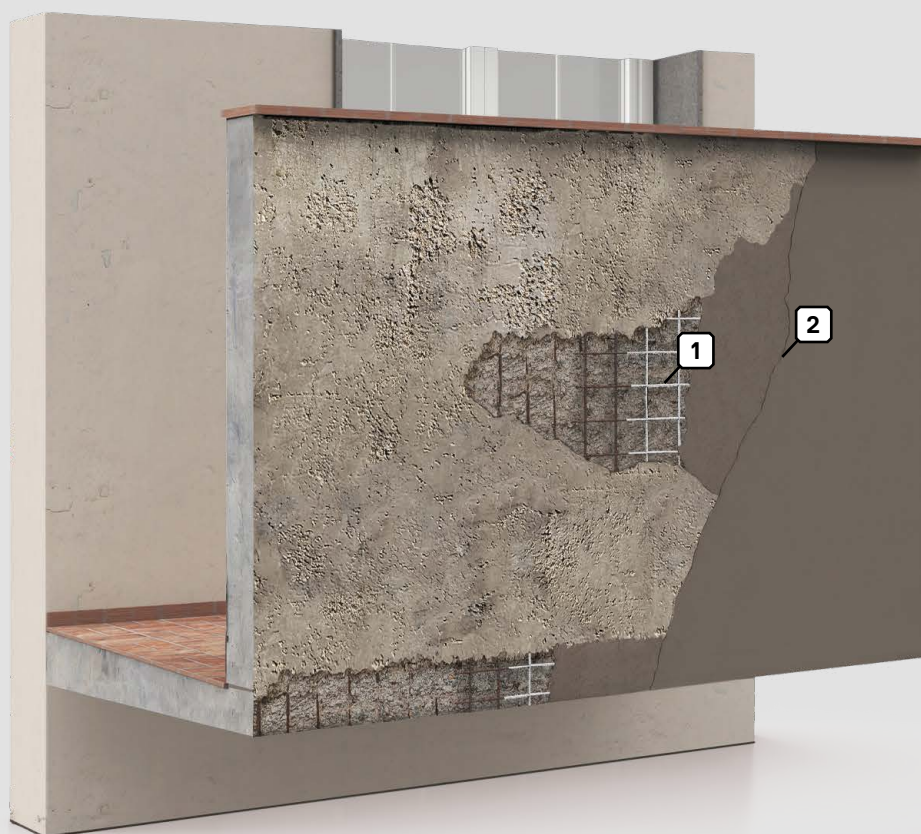
* Relative to the composite fabric + CARBON EPOX FRP system.

** Nominal value relative to the composite fabric + CARBON EPOX FRP system per individual layer applied. For the FRP CARBON QUAD system, the value refers to the individual direction.

TECHNICAL NOTES: • In cases requiring the use of connections, the system can be completed with ARMIS CARBON JOINT connectors to connect to the structural elements to be reinforced. • Please refer to technical documentation for how to apply the connector. • In the case of particularly deteriorated supports, restore and level.

CONCRETE SKIM PLASTER

STRUCTURAL REINFORCEMENTS



DESCRIPTION

System for the restoration of coverage and the creation of protective skim plaster over deteriorated elements in reinforced concrete. The use of Tassullo products allows for the lasting restoration of passivity of concrete, with excellent mechanical properties and resistance to aggressive agents such as sulphates, de-icing salts or freezing-thawing cycles. The product combinations proposed render the system suitable for the restoration works of varying geometry and thickness.

SYSTEM FEATURES

- Easy to apply
- Resistant to deterioration
- Elevated protection
- Elevated resistance
- Variable thicknesses



COMPONENTS

1	PASSIFYING GROUT	RENOVA OXI	Single-component protective passivating product in powder form
		2A RENOVA	Concrete restoration mortar for applications of between 3 and 40 mm
2	FINISH	2B RENOVA FINISH	Protective skim plaster for concrete

Are there any exposed reinforcement bars?

RENOVA OXI RENOVA

→ Powdered passivating grout and variable-thickness mortar for reconstruction

Do you only need to restore the surface finish?

RENOVA FINISH

→ Low-thickness protective finish

APPLICATION PHASES

PHASE 1

Preparation of the support surface

Prepare the support for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general. Use mechanical means to remove any parts that are deteriorated or affected by carbonation and ensure that the surface is rough.

PHASE 2

Preparation of the support surface

If necessary, restore the iron reinforcement, apply RENOVA OXI by brushing over the entire surface of the exposed iron and reconstruct the affected area using RENOVA.

PHASE 3

Applying the protective skim coat

Apply the skim coat manually with a metal float.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	CE Marking	Resistance to CO ₂ emissions (μ)	Water absorption due to capillary action (kg/m ² h ^{0.5})	Vapour permeability coefficient	Technical data
1	RENOVA OXI	Barattolo	18-20	m/kg	1504-7	-	-	-	page 128
2A	RENOVA	Bag	16	kg/m ²	1504-3; R4; 1504-2	12967	w < 0,1	Classe I	page 125
2B	RENOVA FINISH	Bag	3-4	kg/m ²	1504-2	55000	w < 0,1	Classe I	page 126

* Part 3 of standard UNI EN 1504 concerns "Structural and non-structural repair", part 2 concerns "Surface protection systems for concrete", while part 7 refers to "Protection against corrosion of reinforcement".

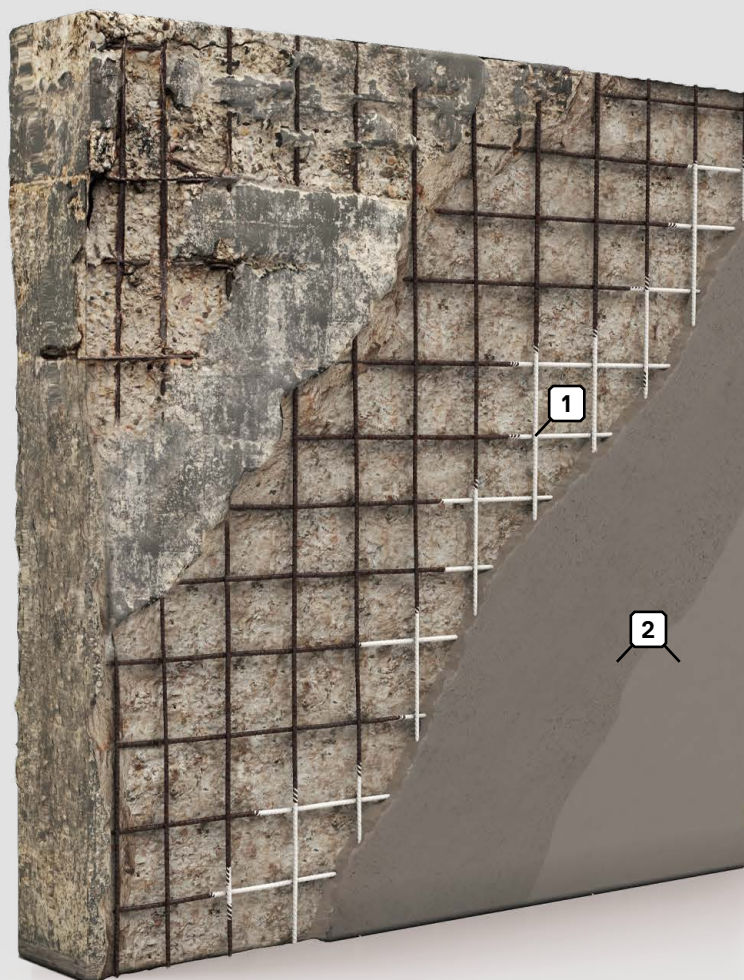
** Average value To obtain Sd > 50 m, it is necessary to apply 0.9 mm of RENOVA FINISH or 4 mm of RENOVA.

*** The value is in reference to standard EN 1062-3.

TECHNICAL NOTES: • If the element in concrete also requires protection against water, HYDRO STOP may be applied before application of the finish. • Removal of deteriorated sections must result in exposing concrete with a minimum compressive strength of 15 MPa to serve as a suitable support for the works to be carried out. • Preparation of the support must ensure a minimum surface roughness of 5 mm.

CONCRETE RESTORATION

STRUCTURAL REINFORCEMENTS



DESCRIPTION

System for the reconstruction and restoration of deteriorated elements in reinforced concrete. The use of Tassullo products allows for the lasting restoration of passivity of concrete, with excellent mechanical properties and resistance to aggressive agents such as sulphates, de-icing salts or freezing-thawing cycles. The product combinations proposed render the system suitable for restorations of varying geometry, thickness and application.

SYSTEM FEATURES

- Easy to apply
- Resistant to deterioration
- Elevated protection
- Elevated resistance
- Machine applicable



COMPONENTS

1	PASSIFYING GROUT	RENOVA OXI	Single-component protective passivating product in powder form
		2A RENOVA	Concrete restoration mortar for applications of between 3 and 40 mm
2	RESTORATION MORTAR	2B RENOVA TIXO + RENOVA FINISH	Fibre-reinforced thixotropic mortar for concrete restoration + Protective skim plaster for concrete
		2C RENOVA MEC + RENOVA FINISH	Sprayable mortar for the reconstruction of concrete + Protective skim plaster for concrete

Are you looking for a single product for both volumetric restoration and a protective skim coat?

RENOVA

→ Mortar for reconstruction and skim coat

Do you need to restore very thick surfaces?

RENOVA TIXO RENOVA FINISH

→ Manual application

Do you need to quickly restore large surface areas?

RENOVA MEC RENOVA FINISH

→ Machine applicable

APPLICATION PHASES

PHASE 1

Preparazione del supporto

Prepare the support for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general. Remove any parts that are deteriorated or affected by carbonatation. Use mechanical means to ensure that the surface has a roughness of at least 5 mm.

PHASE 2

Applying the passifying grout

Carefully brush the reinforcement bars. Use a brush to apply RENOVA OXI to the entire area of the exposed metal.

PHASE 3

Carrying out volumetric restoration

Carry out volumetric restoration. Use a straight edge as soon as bonding begins to improve compactness.

PHASE 4

Applying the protective skim coat

Apply the skim coat manually, in a thin layer, with a metal float.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	CE Marking	Compressive strength (N/mm ²)	Water absorption due to capillary action (kg/m ² h ^{0.5})	Vapour permeability coefficient	Technical data
1	RENOVA OXI	Barattolo	18-20	m/kg	1504-7	-	-	-	page 128
2A	RENOVA	Bag	16	kg/m ² ×cm	1504-3: R4; 1504-2	> 55	w < 0,1	Classe I	page 125
2B	RENOVA TIXO	Bag	19	kg/m ² ×cm	1504-3: R4	> 45	-	-	page 129
	RENOVA FINISH	Bag	3-4	kg/m ²	1504-2	27	w < 0,1	Classe I	page 126
2C	RENOVA MEC	Bag	18	kg/m ² ×cm	1504-3: R4	> 60	-	-	page 128
	RENOVA FINISH	Bag	3-4	kg/m ²	1504-2	27	w < 0,1	Classe I	page 126

* Part 3 of standard UNI EN 1504 concerns "Structural and non-structural repair", part 2 concerns "Surface protection systems for concrete", while part 7 refers to "Protection against corrosion of reinforcement".

** Average value after 28 days

*** The value is in reference to standard EN 1062-3.

TECHNICAL NOTES: • If the element in concrete also requires protection against water, HYDRO STOP may be applied before application of the finish. • Removal of deteriorated sections must result in exposing concrete with a minimum compressive strength of 15 MPa to serve as a suitable support for the works to be carried out.

CONCRETE ANCHORING

STRUCTURAL REINFORCEMENTS



DESCRIPTION

System for the structural anchoring of bars on elements in reinforced concrete for joint reinforcement, enlarging or the anchoring of steel elements. The use of Tassullo products allows for the secure anchoring of steel tensioners or rods in horizontal or vertical elements, guaranteeing the complete filling of the hole and maximum structural solidity. The various product options proposed render the system suitable for anchoring in holes of various degrees of incline and size, and applicable to any installation.

SYSTEM FEATURES

- Elevated resistance
- Versatile system
- Zero shrinkage



COMPONENTS

1	ANCHORING AGENT	1A RESINA VE	Styrene-free bi-component vinyl-ester resin in cartridges
		1B CARBON EPOX	Bi-component epoxy resin for FRP systems
		1C RENOVA CONNECT	Mortar for structural anchoring

Do you need to anchor rods in holes of varying degrees of incline?

RESINA VE

→ Thixotropic consistency, no dripping out of holes

Are you looking for an extremely fluid anchoring agent?

CARBON EPOX

→ Epoxy resin, fluid in consistency

Are you looking for a product that can be applied rapidly?

RENOVA CONNECT

→ Applicable with dedicated injection machine

APPLICATION PHASES

PHASE 1

Creating the holes

Drill anchoring holes of suitable diameter, depth and inclination.

PHASE 2

Cleaning the holes

Pressure wash the surface of the holes with water to remove any residue. Allow excess water to evaporate before inserting the anchoring product or use compressed air.

PHASE 3

Inserting the anchoring agent

Insert the anchoring agent with suitable equipment until the hole is full, making sure to allow air to exit from the hole.

PHASE 4

Inserting the bar

Insert the bar, rotating it as it enters the hole.

TECHNICAL DATA

Component	Name	* Packaging	Yield	U.M.	Nature of material	** Pot life (min)	Compressive strength (MPa)	Bending resistance (MPa)	*** Pull-out resistance (mm)	Technical data
1A	RESINA VE	Cartuccia	0,57	l/kg	Resina vinilestere	4-6	100	15	-	page 133
1B	CARBON EPOX	Bucket Canister	0,85 - 0,93	l/kg	Epossidica	28 ± 1	100 ± 4	80 ± 2	0,12 ± 0,04	page 115
1C	RENOVA CONNECT	Bag	0,58	l/kg	Cementizia	45	> 60	> 9	≤ 0,6	page 126

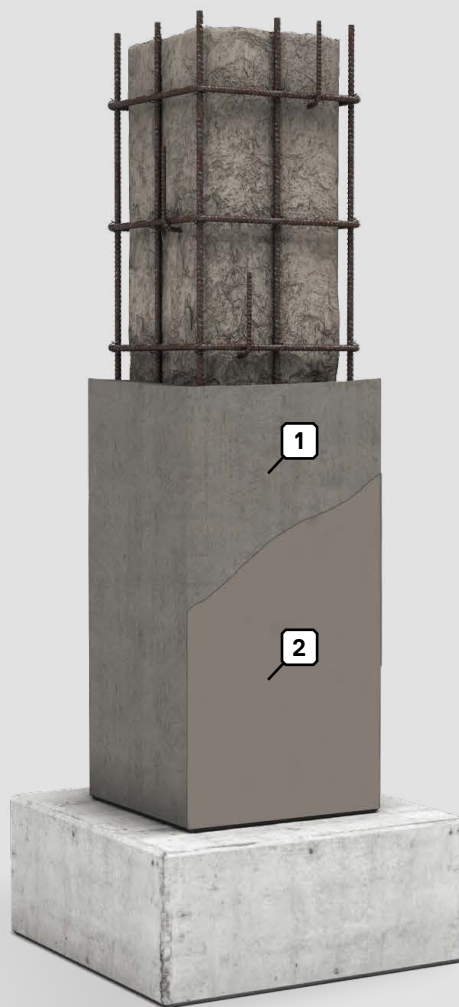
* CARBON EPOX is a bicomponent product in kit form comprising of 1 can (component A) and 1 canister (component B).

** The pot life refers to environments with a temperature of between 20°C and 23°C, for RENOVA CONNECT, it refers to the workability time of the product.

*** Value regarding the movement of steel bars at a force of 75 kN.

CONCRETE CROSS SECTIONAL INCREASE

STRUCTURAL REINFORCEMENTS



DESCRIPTION

System for the enlargement of elements in reinforced concrete for the purpose of increasing load capacity. The use of Tas-sullo products allows for an increase in the cross-section of a load-bearing part, thus allowing for a lasting increase in the load capacity of the element involved, with excellent resistance to aggressive agents such as sulphates, de-icing salts or freezing-thawing cycles. The product combinations proposed render the system suitable for restorations of varying geometry, thickness and application.

SYSTEM FEATURES

- Resistant to deterioration
- Elevated protection
- Elevated resistance
- Machine applicable
- Compensated shrinkage



COMPONENTS

1	RESTORATION MORTAR	1A RENOVA FLUID	Pourable filling mortar for concrete reconstruction
		1B RENOVA FLUID HP	High-performance pourable mortar for concrete reconstruction
		1C RENOVA MEC	Sprayable mortar for the reconstruction of concrete
2	FINISH	RENOVA FINISH	Protective skim plaster for concrete

Do you need to enlarge horizontal elements with the use of framework?

**RENOVA FLUID
RENOVA FLUID HP**

→ Pourable mortar

Do you need to quickly restore surfaces?

RENOVA MEC

→ Machine applicable

APPLICATION PHASES

PHASE 1

Preparation of the support surface

Prepare the support for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general. Remove any parts that are deteriorated or affected by carbonatation. Use mechanical means to ensure that the surface has a roughness of at least 5 mm.

PHASE 2

Preparing the framework

Only when using RENOVA FLUID or RENOVA FLUID HP, prepare the framework as necessary and apply a release agent to the parts of the framework in contact with the product.

PHASE 3

Enlarging

Carry out the enlarging process by pouring the product into the framework or by applying RENOVA MEC with a plastering machine. Use vibration or a straight edge and

float as soon as bonding begins to improve compactness.

PHASE 4

Applying the protective skim coat

Apply the skim coat manually, in a thin layer, with a metal float.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Mixture consistency	CE Marking and resistance class	Compressive strength (N/mm ²)	Bending resistance (N/mm ²)	Technical data
1A	RENOVA FLUID	Bag	19	kg/m ² ×cm	Colabile	1504-3: R4;	> 50	-	page 127
1B	RENOVA FLUID HP	Bag	19	kg/m ² ×cm	Colabile	1504-3: R4;	> 85	> 9	page 127
1C	RENOVA MEC	Bag	18	kg/m ² ×cm	Tixotropica	1504-3: R4;	> 60	> 7	page 128
2	RENOVA FINISH	Bag	3-4	kg/m ²	Tixotropica spalmabile	1504-2	27	-	page 126

* Part 3 of standard UNI EN 1504 concerns "Structural and non-structural repair", while part 2 concerns "Surface protection systems for concrete".

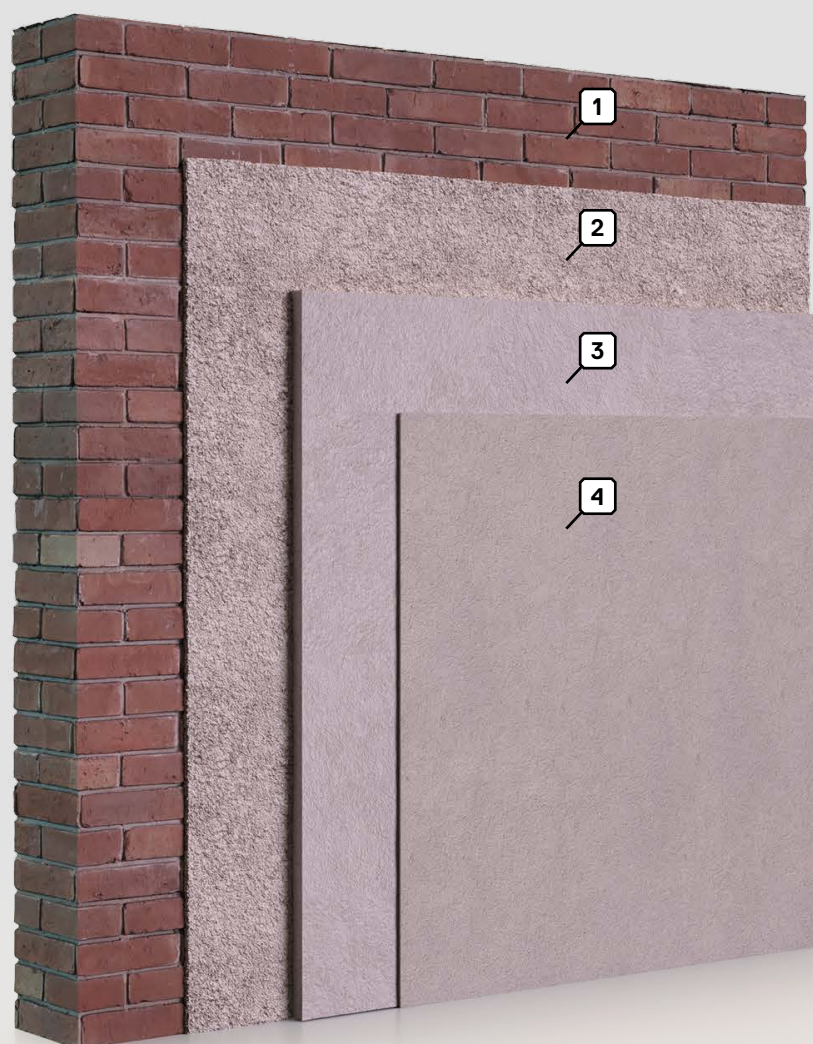
** Average value after 28 days.

*** Average value.

TECHNICAL NOTES: • La FASE 4 può essere realizzata, in alternativa a RENOVA FINISH, con il prodotto RENOVA. • La rimozione delle parti ammalorate deve proseguire fino al raggiungimento di un calcestruzzo con resistenza minima a compressione di 15 MPa per rappresentare un supporto idoneo alle lavorazioni previste. •

DRY PLASTER

WATERPROOFING AND
DEHUMIDIFICATION



DESCRIPTION

System for the restoration of masonry affected by damp. The Tassullo products, made with natural hydraulic lime NHL 5, act efficiently on the problem, even in the presence of harmful salts or pollutants. The choice of two different dehumidifying plasters renders the Restoration System suitable for any type of internal or external masonry.

SYSTEM FEATURES

- High breathability
- Resistant to degradation
- High dehumidifying power
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	ANTI-SALINE TREATMENT	T SAL	Anti-saline liquid solvent treatment	
2	SALT-RESISTANT ROUGH BASE	DRY RIN	Salt-resistant rough base in natural hydraulic lime NHL 5	
3	DEHUMIDIFYING PLASTER	3A DRY SOFT	Macroporous dehumidifying plaster in natural hydraulic lime NHL 5	
		3B DRY IDRO	Hydrophobic mortar in natural hydraulic lime NHL 5	
4	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	

Problems with internal damp?

DRY SOFT

→ Dehumidifying plaster

Problems of humidity in the external base of the wall?

DRY IDRO

→ Dehumidifying hydrophobic plaster

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Application of the anti-saline treatment

Apply T SAL with a brush or spray on dry subst, repeating application until the surface is saturated.

PHASE 3

Application of the salt-resistant rough base

As soon as T SAL has been completely absorbed by the masonry, proceed with the application of DRY RIN.

PHASE 4

Application of the dehumidifying plaster

Apply DRY SOFT or DRY IDRO in a single coat on the unsmoothed rough base.

PHASE 5

Application of the skim plaster

Use a spatula to apply the skim plaster T A01 and then the chosen finish. It is recommended to use mineral finishes from the TASSULLO CREA line.

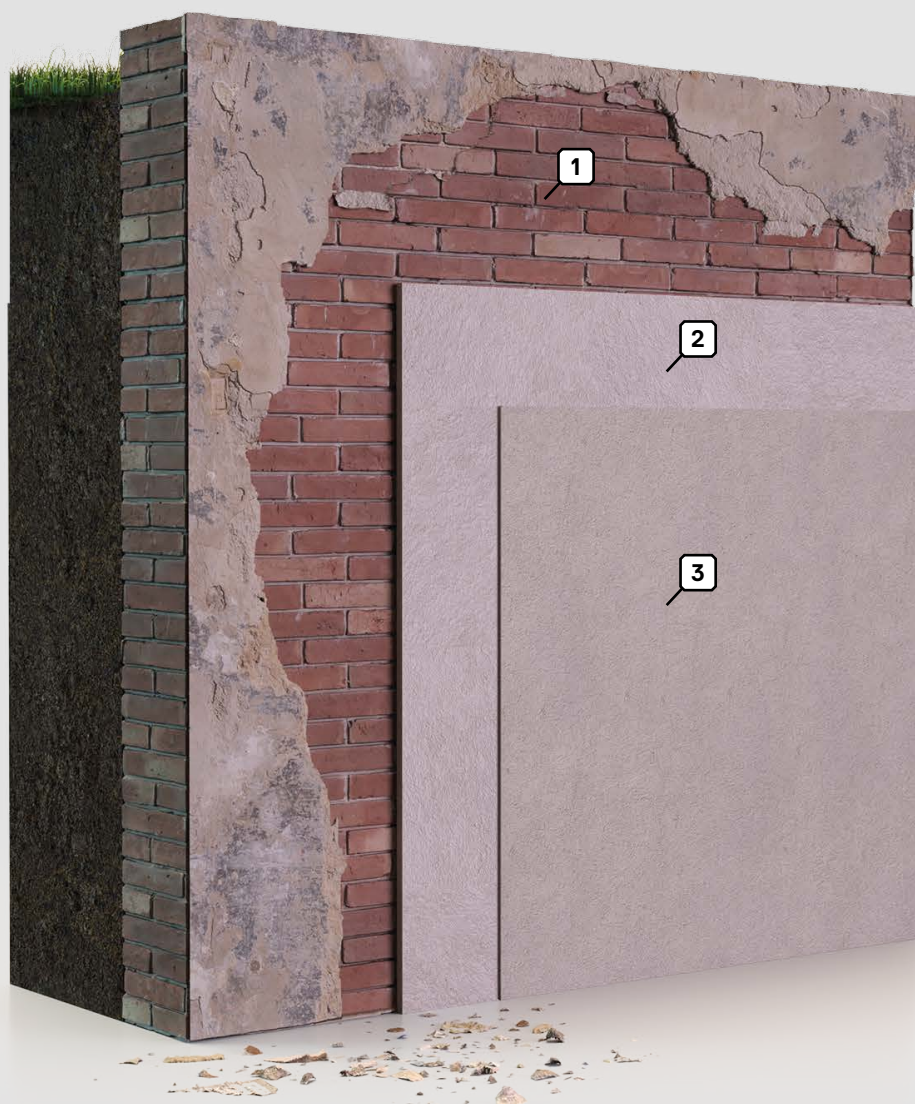
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1	T SAL	Canister	4	m ² /l	-	-	-	-	-	page 112
2	DRY RIN	Bag	4	kg/m ²	-	4	-	-	0.61	page 110
3A	DRY SOFT	Bag	9	kg/(m ² ×cm)	2	18	6	0.12	0.33	page 111
3B	DRY IDRO	Bag	18	kg/(m ² ×cm)	2	36	10	0.20	1.11	page 99
4	T A01	Bag	3	kg/m ²	0.3	3	11	0.03	0.61	page 184

TECHNICAL NOTES: • PHASE 2 is to be carried out exclusively in the presence of salt efflorescence on the masonry. In the event of excessive presence of salts, it is recommended to first apply the desalinating wear compress T SAL EXTRA. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • DRY IDRO must be applied in a single coat to a maximum thickness of 2-3 cm. • PHASE 5 must involve the use of a finish with a level of breathability (thickness, μ, Sd) that is compatible with the layering applied.

DAMP PROOF PLASTER

WATERPROOFING AND
DEHUMIDIFICATION



DESCRIPTION

System for the restoration of retaining walls affected by problems related to the content of damp. The system has been designed to create effective protection against damp from embankments and to limit its migration to interiors.

SYSTEM FEATURES

- High humidity resistance
- Resistant to degradation
- With natural hydraulic lime NHL 5



COMPONENTS

1	ANTI-SALINE TREATMENT	T SAL	Anti-saline liquid solvent treatment	
2	RESTORATION PLASTER	DRY PLUS	Plaster for the restoration of retaining walls	
3	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	

Do you need to restore a wall subject to active or passive water pressure?

DRY PLUS

→ The combination of hydraulic binders of varying nature provides the product with unique characteristics and allows for the creation of a resistant plaster capable of resisting water pressure, without excessively penalising the breathability of the wall.

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Application of the anti-saline treatment

Apply T SAL with a brush or spray on dry

substrates, repeating application until the surface is saturated.

PHASE 3

Application of plaster

As soon as T SAL has been completely absorbed by the masonry, proceed with the application of DRY PLUS.

PHASE 4

Application of the skim plaster

Use a spatula to apply the skim plaster T A01 and then the chosen finish. It is recommended to use mineral finishes from the TASSULLO CREA line.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1	T SAL	Canister	4	m ² /l	-	-	-	-	-	page 112
2	DRY PLUS	Bag	18	kg/(m ² ×cm)	2	36	35	0.70	0.82	page 110
3	T A01	Bag	3	kg/m ²	0.3	3	11	0.03	0.61	page 184

TECHNICAL NOTES: • PHASE 2 is to be carried out exclusively in the presence of salt efflorescence on the masonry. In the event of excessive presence of salts, it is recommended to first apply the desalinating wear compress T SAL EXTRA. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • PHASE 4 must involve the use of a finish with a level of breathability (thickness, μ, Sd) that is compatible with the layering applied. • The system can be applied to a maximum thickness of 3 cm. If creating higher thicknesses is necessary, provide for the preliminary application of a layer of plaster of suitable resistance.

RISING DAMP STOP

WATERPROOFING AND
DEHUMIDIFICATION



DESCRIPTION

System for the creation of a hydrophobic anti-rising-damp chemical barrier on walls in solid masonry. Rising Damp Stop is ideal for particularly severe cases of widespread rising damp, applied in combination with other Tas-sullo restoration systems or to intervene on exposed masonry where it is not possible to use plaster restoration systems.

SYSTEM FEATURES

- High efficiency
- High breathability
- Resistant to degradation
- Compatible with period masonry



COMPONENTS

1	BARRIER	HYDRO BARRIER	Hydrophobic chemical barrier in water-alcohol solution
		HYDRO SACCA	Bag for the application of HYDRO BARRIER

Do you want to limit widespread rising damp and the harm caused by damp in walls?

HYDRO BARRIER

→ The chemical barrier system severely limits the possibility of widespread rising damp through the surface of the masonry, proving ideal in cases in which the phenomenon is particularly severe or when it is not possible to resolve the problem at the root.

Do you need to dehumidify an exposed wall?

HYDRO BARRIER

→ The chemical barrier system allows the deterioration caused by widespread rising damp to be severely limited without using dehumidifying plasters that would cover the surface of the masonry

APPLICATION PHASES

PHASE 1

Preparation of the surface

If necessary, remove the plaster from the area of intervention.

PHASE 2

Creation of injection holes

Drill holes with a downwards slope to favour injection of the product, at a height of approximately 10 cm from the floor, spaced 15 cm apart and at a depth of 3/4 the thickness of the masonry. In the case of elevated thicknesses (>50 cm), it may be opportune to work from both sides of the masonry.

PHASE 3

Positioning of the injection bags

Hang HYDRO SACCA vertically and insert the tubes into the injection holes to a depth of approximately 3-4 cm. Seal with mortar in order to avoid the product from leaking out.

PHASE 4

Injection of the barrier

Fill the bags with HYDRO BARRIER to the amount necessary for the intervention. Open the clips to allow the product to flow into the masonry.

PHASE 5

Apply the plaster and the finish

If provided for, apply the plaster and finish on the surfaces involved. It is recommended to apply a dehumidifying plaster as explained in detail in DRY PLASTER SYSTEM.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Solvent	Incidence wall 30 cm (l/m)	Incidence wall 40 cm (l/m)	Incidence wall 50 cm (l/m)	Technical data
1	HYDRO BARRIER	Canister	150	ml/(m×cm)	hydro-alcoholic	4.5	6	7.5	page 107
	HYDRO SACCA	Injection bag	6	pcs/m	-	-	-	-	

WALL PROTECTION

WATERPROOFING AND
DEHUMIDIFICATION



DESCRIPTION

Wall Protection is the Tassullo system specifically designed for the protection of period masonry. The various phases in the system guarantee the removal of organic patinas and signs of ageing, to restore masonry to its original aspect, and the creation of a neutral or toning protective upper surface coat to limit direct exposure to rainwater.

SYSTEM FEATURES

- High protection
- Compatible with period masonry
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	DETERGENT	NOVAPIETRA BIO	Neutral detergent for the removal of organic patinas
2	PROTECTION	NURAGHE	Mortar in natural hydraulic lime NHL 5 for masonry top layer protection
3	PROTECTIVE TREATMENT	3A LITHOS	Water-based breathable protective treatment
		3B LITHOS PLUS	Solvent-based breathable protective treatment
		3C LITHOS TONO	Solvent-based breathable and toning protective treatment

Are you looking for a more natural protective system?

LITHOS

→ Water based

Are you looking for an extra efficient protection system?

LITHOS PLUS

→ Solvent based

Do you want to highlight the colour of the stone?

LITHOS TONO

→ Toning

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general.

PHASE 2

Removal of organic patina

Apply NOVAPIETRA BIO with a brush or low-pressure distributor until the surface is

saturated. Wait 24/48 hours and then wash with water at low pressure.

PHASE 3

Application of the protective coat

Manually apply the NURAGHE mortar for surface protection, creating a profile suited to allowing rainwater to drain off.

PHASE 4

Application of the protective system

Apply LITHOS, LITHOS PLUS or LITHOS TONO by brush or spray over the treated surface.

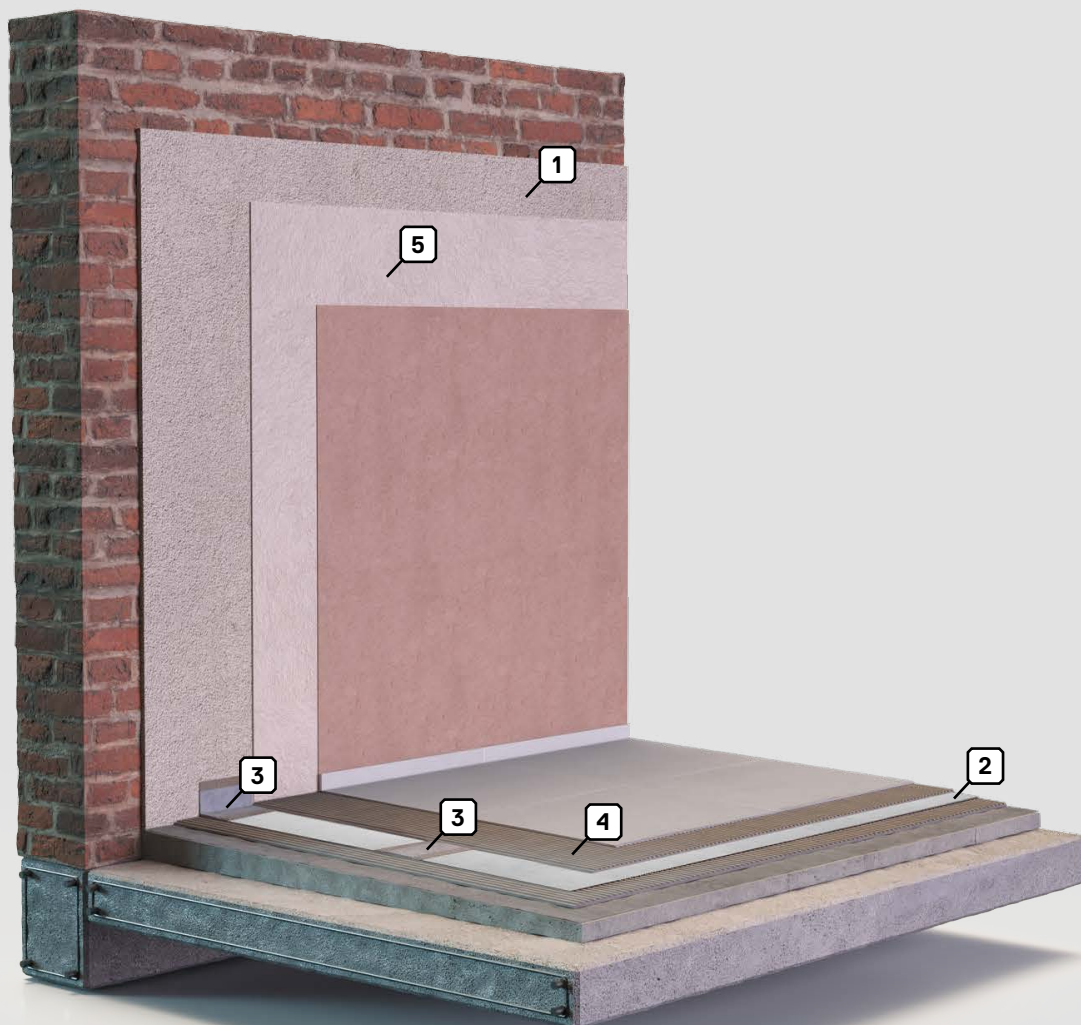
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Solvent	pH	Water absorption reduction	Technical data
1	NOVAPIETRA BIO	Canister	8	m ² /l	Water	7.5 ± 0.5	0 %	page 163
2	NURAGHE	Bag	17	kg/m ² ×cm	-	-	hydrophobic	page 108
3A	LITHOS	Canister	10	m ² /l	Water	-	72 %	page 164
3B	LITHOS PLUS	Canister	10	m ² /l	White spirit	-	75 %	page 164
3C	LITHOS TONO	Canister	10	m ² /l	Ethyl acetate	-	78 %	page 165

TECHNICAL NOTES: • It is always advisable to test the products on a limited area of the surface in order to verify any undesired reactions. • The use of NOVAPIETRA BIO is essential in the presence of organic patinas. In order to guarantee suitable results, the detergent needs to be allowed to act for 24/48 hours, in order to be able to dissolve the organic substances on the surface of the masonry. The effectiveness of the cleaning is to be assessed after rinsing with water and allowing the surface to dry. If necessary, application can be repeated. • The protective systems are to be applied in at least two coats and until the surface is completely saturated. • It is recommended to avoid applying the product NURAGHE too thinly. • The product NOVAPIETRA BIO is recommended for the preparation of application surfaces and for the cleaning of exposed vertical surfaces. • The protective treatment is to be applied to the upper surface in order to increase the durability of the intervention. It is also recommended to apply to the vertical surface in order to protect the product.

HYDRO PROTECTION

WATERPROOFING AND
DEHUMIDIFICATION



DESCRIPTION

System for the waterproofing of vertical and horizontal surfaces. Hydro Protection protects masonry and subfloors from exposure to water. It is effective both outdoors, in the case of excessive exposure to the elements, and indoors, in environments subject to intense damp, as well as running or pooled water.

SYSTEM FEATURES

- High efficiency
- Resistant to degradation
- With natural hydraulic lime NHL 5



COMPONENTS

1	PLASTER	1A INTOCALX	Highly workable base-coat plaster with natural hydraulic lime NHL 5	
		1B OPUS MEC	Base-coat plaster in natural hydraulic lime NHL 5 for machine application	
2	WATERPROOFING	2A HYDRO MULTI LAYER + T FIX HP FLEX	Four-layer impermeable and separating fabric + Highly workable and deformable class C2TE S1 cement adhesive	
		2B HYDRO STOP	Bicomponent product for the waterproofing of surfaces	
3	JOINT	2C NURAGHE RASO	Single-component waterproofing in natural hydraulic lime NHL 5	
		HYDRO TAPE	Impermeable tape with non-woven fabric	
4	ADHESIVE	HYDRO FIX	Single-component impermeable sealant	
		T FIX HP FLEX	Highly workable and deformable class C2TE S1 cement adhesive	
5	SKIM PLASTER	T A01	Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm	

Do you need to waterproof linear surfaces?

HYDRO MULTI LAYER

→ Impermeable and separating fabric

Do you need to waterproof curved surfaces or surfaces with complex geometries?

HYDRO STOP

→ Maximum adaptability

Are you working in the restoration or bioconstruction field?

**NURAGHE RASO
OPUS MEC**

→ 100% natural hydraulic lime

APPLICATION PHASES

PHASE 1

Preparation of the surface

Prepare the surface for application of the system by removing any dust, salt efflorescence, and inconsistent sections in general. Crumbly or inconsistent surfaces require preliminary application of the T PRIMER consolidating treatment.

PHASE 2

Application of plaster

Apply INTOCALX or OPUS MEC to the vertical surfaces involved in the intervention.

PHASE 3

Application of the waterproofing treatment

Apply the waterproofing product to the surfaces, in accordance with the specific phases of application for the product chosen. Seal the joints with the necessary tape and sealant.

PHASE 4

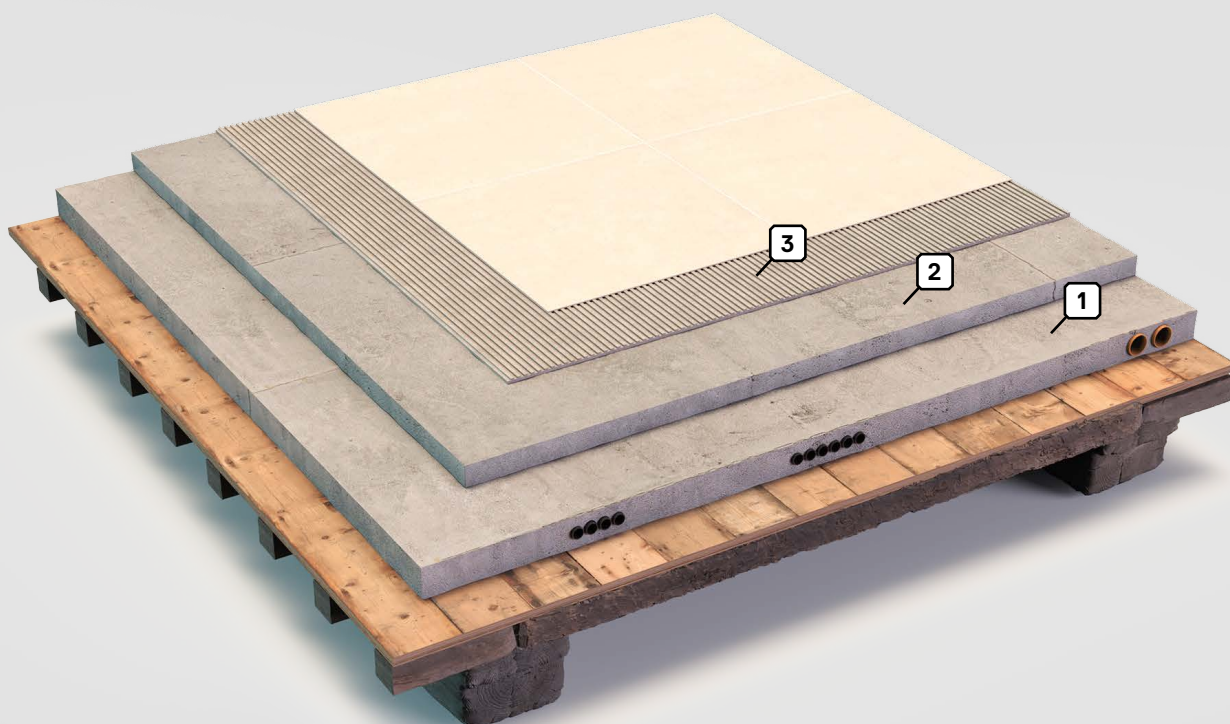
Application of the finish

Lay the flooring, using the adhesive T FIX HP FLEX, and proceed with the skim plaster T A01, before proceeding with the finishing of the vertical surfaces. It is recommended to use mineral finishes from the TASSULLO CREA line.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	Thickness (cm)	Incidence (kg/m ²)	μ	Sd (m)	λ (W/mxK)	Technical data
1A	INTOCALX	Bag	15	kg/(m ² ×cm)	1.5	22.5	14	0.21	1.11	page 171
1B	OPUS MEC	Bag	15	kg/(m ² ×cm)	1.5	22.5	12	0.18	0.61	page 176
2A	T FIX HP FLEX	Bag	2	kg/m ²	-	2	-	-	-	page 152
	HYDRO MULTI LAYER	Roll	1	m ² /m ²	0.075	-	667	0.50	-	page 111
2B	HYDRO STOP	Bag	1.2	kg/(m ² ×mm)	0.4	4.8	208	0.83	-	page 108
		Canister								
2C	NURAGHE RASO	Bag	4	kg/m ²	0.3	4	-	-	-	page 109
3	HYDRO TAPE	Roll	1	m/m	0.066	-	24242	16	-	page 112
	HYDRO FIX	Chub pack	0.2	kg/m	-	-	-	-	-	page 107
4	T FIX HP FLEX	Bag	3	kg/m ²	-	3	-	-	-	page 152
5	T A01	Bag	3	kg/m ²	0.3	3	11	0.03	0.61	page 184

TECHNICAL NOTES: • In the case of application over extensive surface areas, it is recommended to use the impermeable and separating fabric or to apply the waterproofing treatment in two successive coats, with the intermediate positioning of a fibreglass reinforcement mesh. • To ensure uninterrupted liquid proofing, use impermeable tape and sealant for perimeter joints and any weak points in the impermeable layer. • In cases in which multiple sections of fabric are required to cover the entire surface, seal overlapping sections with HYDRO FIX, or position the sections side by side, ensuring continuity by applying HYDRO TAPE along the joint. • According to the level of finish required, the product T A01 can be substituted with the extremely fine, medium or rough finishes T A00, T A02 or T A04 with a maximum grading of 0.5 mm, 2 mm or 4 mm respectively. • The products T FIX, T FIX HP or T FIX ECO can be used as an alternative to the adhesive T FIX HP FLEX in accordance with the type of flooring and the intended use, either indoors or outdoors.



DESCRIPTION

A system for the creation of layers of flooring for internal use, including lightweight screeds for the incorporation of systems, floating screeds and adhesives for the laying of tiles. The wide range of Tassullo products allows the system to be adapted to numerous contexts, from new constructions with traditional techniques to situations involving bioconstruction and restoration.

SYSTEM FEATURES

- Easy to apply
- Versatile system
- With natural hydraulic lime NHL 5



COMPONENTS

1	LIGHTWEIGHT SCREED	1A PAVI ECO LIGHT	Lightweight thermal insulating screed in natural hydraulic lime NHL 5	
		1B PAVI LIGHT	Lightweight thermal insulating screed	
2	FLOATING SCREED	2A PAVI ECO	Ready mix screed in natural hydraulic lime NHL 5	
		2B PAVI PRONTO	Traditional screed for standard use	
		2C PAVI TEKNO	Traditional screed with improved surface finishing	
3	ADHESIVE	2D PAVI RAPID	Rapid-drying screed for standard use	
		3A T FIX HP	Highly workable class C2TE cement adhesive	
		3B T FIX ECO	Interior adhesive in natural hydraulic lime NHL 5	

Are you working in the restoration or bioconstruction field?

**PAVI ECO LIGHT
PAVI ECO
T FIX ECO**

→ 100% Natural hydraulic lime NHL 5

Are you constructing a building in traditional masonry?

**PAVI PRONTO /
PAVI TEKNO**

→ Suitable for traditional construction

Do you want to reduce wait times on site?

PAVI RAPID

→ Rapid drying

APPLICATION PHASES

PHASE 1

Preparation of the application sub-base

Prepare the sub-base, positioning the systems to be incorporated into the lightweight screed.

PHASE 2

Application of the lightweight screed

Apply the lightweight screed to fully cover the systems, creating a level surface.

PHASE 3

Application of the floating screed

Apply the floating screed to a minimum thickness of 4 cm and use a straight edge to obtain a level surface.

PHASE 4

Application of the flooring

Once the screed has cured and dried, apply the adhesive and position the flooring

elements. Choose the adhesive suited to the type and size of the tiles to be applied.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	* Thickness (cm)	Incidence (kg/m ²)	Walkability	** Operational time	*** Paving time	λ (W/mxK)	Technical data
1A	PAVI ECO LIGHT	Bag	5	kg/(m ² ×cm)	5	25	7 days	-	-	0.12	page 155
1B	PAVI LIGHT	Bag	5	kg/(m ² ×cm)	5	25	7 days	-	-	0.12	page 156
2A	PAVI ECO	Bag	20	kg/(m ² ×cm)	4	80	48 h	42 days	-	1.35	page 155
2B	PAVI PRONTO	Bag	20	kg/(m ² ×cm)	4	80	24 h	21 days	28 days	1.35	page 156
2C	PAVI TEKNO	Bag	20	kg/(m ² ×cm)	4	80	24 h	21 days	28 days	1.35	page 158
2D	PAVI RAPID	Bag	20	kg/(m ² ×cm)	4	80	24 h	21 days	7 days	1.35	page 157
3A	T FIX HP	Bag	3	kg/m ²	-	3	24 - 48 h	14 days	-	-	page 152
3B	T FIX ECO	Bag	3	kg/m ²	-	3	24 - 48 h	28 days	-	-	page 151

* Recommended value.

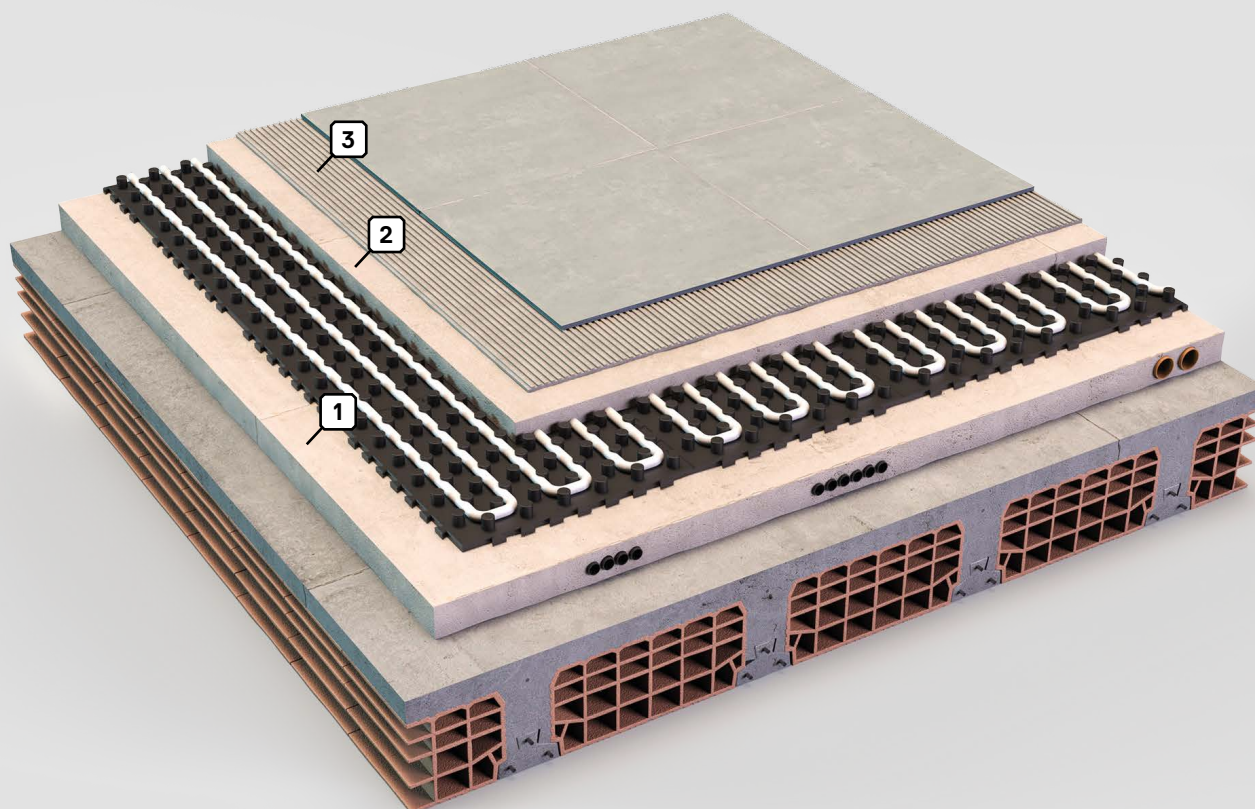
** For screeds and self-levelling products reference is made to the possibility of first-time use of radiant floor heating. For tile adhesives to the possibility of decorating rooms or laying/transiting with significant loads.

*** Indicative waiting time before laying wooden floor, not glued.

TECHNICAL NOTES: • The FLOORING SYSTEM can also be used externally, on surfaces that are not for driving on, and with suitable inclines. • The products T FIX or T FIX HP FLEX (ideal for large formats) can be used as an alternative to the adhesive T FIX HP in accordance with the type of flooring. • Assess the need to apply a vapour barrier layer.

RADIANT

LAY PAVING



DESCRIPTION

A system for the creation of layers of flooring for internal use, including radiant heating systems, lightweight screeds for the incorporation of systems, floating screeds and adhesives for the laying of tiles. The wide range of Tassullo products allows the system to be adapted to numerous contexts, from new constructions with traditional techniques to situations involving bioconstruction and restoration.

SYSTEM FEATURES

- Easy to apply
- Versatile system
- With natural hydraulic lime NHL 5



COMPONENTS

1	LIGHTWEIGHT SCREED	1A PAVI ECO LIGHT	Lightweight thermal insulating screed in natural hydraulic lime NHL 5	
		1B PAVI LIGHT	Lightweight thermal insulating screed	
		2A PAVI ECO	Ready mix screed in natural hydraulic lime NHL 5	
2	FLOATING SCREED	2B PAVI PRONTO	Traditional screed for standard use	
		2C PAVI TEKNO	Traditional screed with improved surface finishing	
		2D PAVI RAPID	Rapid-drying screed for standard use	
3	ADHESIVE	3A T FIX HP	Highly workable class C2TE cement adhesive	
		3B T FIX ECO	Interior adhesive in natural hydraulic lime NHL 5	

Are you working in the restoration or bioconstruction field?

**PAVI ECO LIGHT
PAVI ECO
T FIX ECO**

→ 100% Natural hydraulic lime NHL 5

Are you constructing a building in traditional masonry?

**PAVI PRONTO /
PAVI TEKNO**

→ Suitable for traditional construction

Do you want to reduce wait times on site?

PAVI RAPID

→ Rapid drying

APPLICATION PHASES

PHASE 1

Preparation of the application sub-base

Prepare the sub-base, positioning the systems to be incorporated into the lightweight screed.

PHASE 2

Application of the lightweight screed

Apply the lightweight screed to fully cover the systems, creating a level surface to facilitate the application of the underfloor heating system.

PHASE 3

Application of the heating system

Position the underfloor heating system over the lightweight screed.

PHASE 4

Application of the floating screed

Apply the floating screed to a minimum thickness of 4 cm and use a straight edge to obtain a level surface.

PHASE 5

Application of the flooring

Once the screed has cured and dried, apply the adhesive and position the flooring elements. Choose the adhesive suited to the type and size of the tiles to be applied.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	* Thickness (cm)	Incidence (kg/m ²)	Walkability	** Operational time	*** Paving time	λ (W/mxK)	Technical data
1A	PAVI ECO LIGHT	Bag	5	kg/(m ² ×cm)	5	25	7 days	-	-	0.12	page 155
1B	PAVI LIGHT	Bag	5	kg/(m ² ×cm)	5	25	7 days	-	-	0.12	page 156
2A	PAVI ECO	Bag	20	kg/(m ² ×cm)	4	80	48 h	42 days	-	1.35	page 155
2B	PAVI PRONTO	Bag	20	kg/(m ² ×cm)	4	80	24 h	21 days	28 days	1.35	page 156
2C	PAVI TEKNO	Bag	20	kg/(m ² ×cm)	4	80	24 h	21 days	28 days	1.35	page 158
2D	PAVI RAPID	Bag	20	kg/(m ² ×cm)	4	80	24 h	21 days	7 days	1.35	page 157
3A	T FIX HP	Bag	3	kg/m ²	-	3	24 - 48 h	14 days	-	-	page 152
3B	T FIX ECO	Bag	3	kg/m ²	-	3	24 - 48 h	28 days	-	-	page 151

*Recommended value

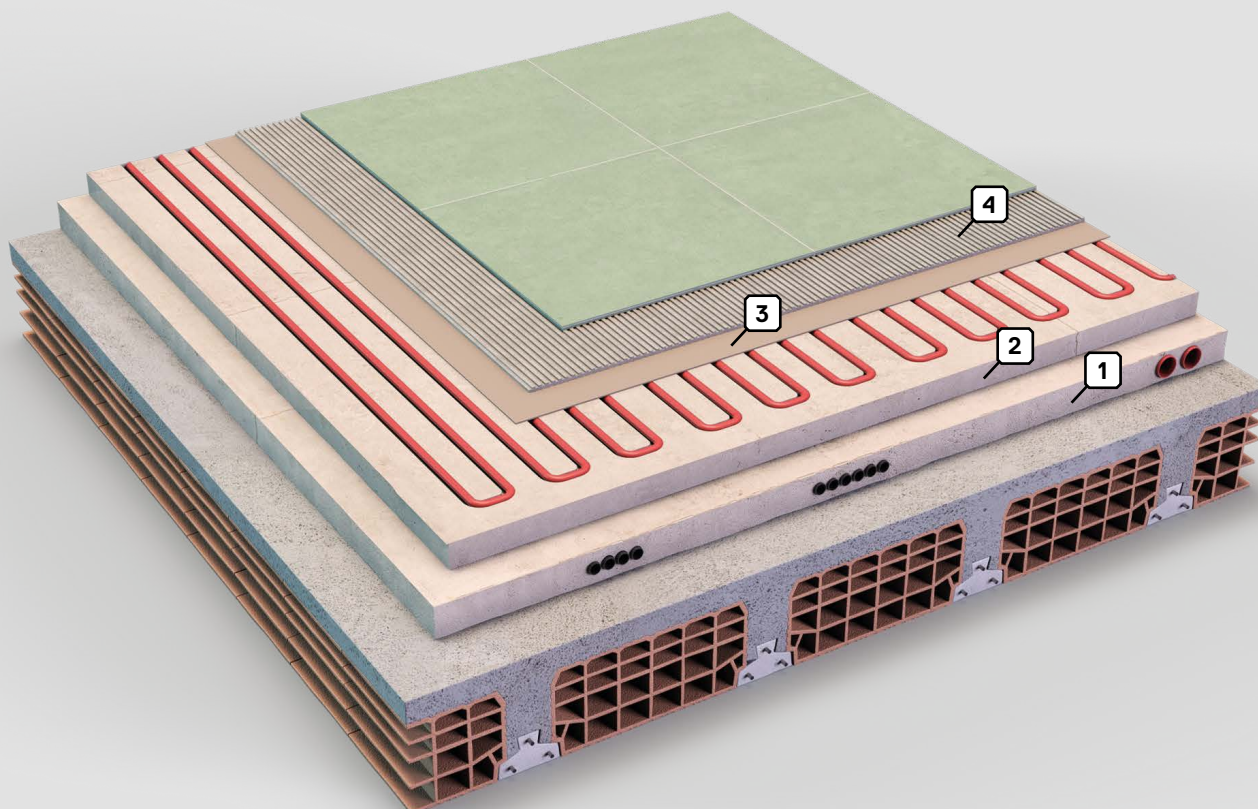
** For screeds and self-levelling products reference is made to the possibility of first-time use of radiant floor heating. For tile adhesives to the possibility of decorating rooms or laying/transiting with significant loads.

*** Indicative waiting time before laying wooden floor, not glued.

TECHNICAL NOTES: • For thicknesses and drying times, refer to the technical datasheets of the products. • The products T FIX or T FIX HP FLEX (ideal for large formats) can be used as an alternative to the adhesive T FIX HP in accordance with the type of flooring. • It is recommended to apply at least 3 cm of floating screed over the pipework.

ECO SMART RADIANT

LAY PAVING



DESCRIPTION

System for the creation of layers of flooring, with the installation of a heating system in the milled screed. The use of Tassullo products made with natural hydraulic lime render the Eco Smart Radiant System particularly suitable for bioconstruction and in all cases requiring maximum breathability and comfort.

SYSTEM FEATURES

- High breathability
- Reduced thicknesses
- 100% natural hydraulic lime NHL 5

100%
NATURAL
LIME



COMPONENTS

1	LIGHTWEIGHT SCREED	PAVI ECO LIGHT	Lightweight thermal insulating screed in natural hydraulic lime NHL 5	
2	SCREED	PAVI ECO	Ready mix screed in natural hydraulic lime NHL 5	
3	SMOOTHING	T LEVEL ECO	Self-levelling smoothing in natural hydraulic lime NHL 5 for thicknesses of between 1 and 10 mm	
4	ADHESIVE	T FIX ECO	Interior adhesive in natural hydraulic lime NHL 5	

Do you want to maximise the efficiency of your underfloor heating system?

PAVI ECO

→ Thanks to the possibility of milling the surface of the screed, the heating system can be installed closer to the floor, thus reducing heat dispersion.

APPLICATION PHASES

PHASE 1

Preparation of the application sub-base

Prepare the sub-base, positioning the systems to be incorporated into the lightweight screed.

PHASE 2

Application of the lightweight screed

Apply the lightweight screed PAVI ECO LIGHT to fully cover the systems, creating a level surface.

PHASE 3

Application of the floating screed

Apply the floating screed PAVI ECO to a minimum thickness of 4 cm and use a straight edge to obtain a level surface.

PHASE 4

Application of the heating system

Cut channels into the screed with a suitable milling machine, clean the channels and position the pipework for the heating system.

PHASE 5

Application of the self-levelling smoothing

Apply T LEVEL ECO and smooth the surface.

PHASE 6

Laying the flooring

Apply T FIX EXO and lay the flooring elements.

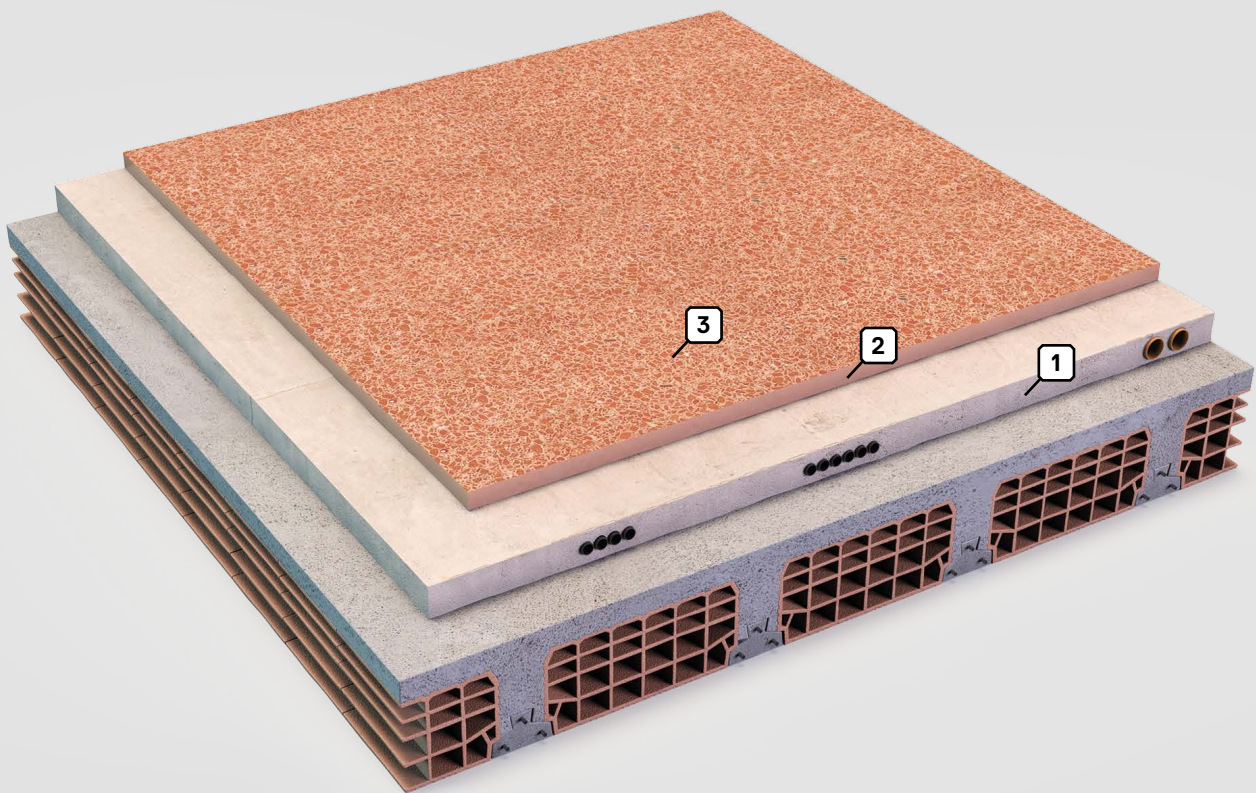
TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	* Thickness (cm)	Incidence (kg/m ²)	Walkability	** Operational time	λ (W/mxK)	Technical data
1	PAVI ECO LIGHT	Bag	5	kg/(m ² ×cm)	5	25	7 days	-	0.12	page 155
2	PAVI ECO	Bag	20	kg/(m ² ×cm)	4	80	48 h	42 days	1.35	page 155
3	T LEVEL ECO	Bag	1.9	kg/(m ² ×mm)	0.3	5.7	24 h	42 days	-	page 153
4	T FIX ECO	Bag	3	kg/m ²	-	3	24 - 48 h	28 days	-	page 151

*Recommended value.

** For screeds and self-levelling products reference is made to the possibility of first-time use of radiant floor heating. For tile adhesives to the possibility of decorating rooms or laying/transiting with significant loads.

TECHNICAL NOTES: • For thicknesses and drying times, refer to the technical datasheets of the products. Before cutting the channels for the installation of the pipework, give the screed sufficient time to dry and cure. Assess the need to apply a vapour barrier layer.



DESCRIPTION

System for the creation of prestige flooring with screed made with natural hydraulic lime NHL 5 and exposed crushed pottery aggregates. The use of Tassullo products made with natural hydraulic lime renders the Coccio System particularly suitable for bioconstruction and in all cases requiring maximum breathability and comfort.

SYSTEM FEATURES

- High breathability
- Fine aesthetic effect
- 100% natural hydraulic lime NHL 5



COMPONENTS

1	LIGHTWEIGHT SCREED	PAVI ECO LIGHT	Lightweight thermal insulating screed in natural hydraulic lime NHL 5	
2	EXPOSED SCREED	PAVI COCCIO	Traditional screed with crushed pottery and natural hydraulic lime NHL 5	
3	PROTECTIVE TREATMENT	CERA FORTE	Opaque protective treatment for mineral finishes	

Do you want to use natural traditional Italian construction materials?

PAVI COCCIO

→ The creation of a screed in natural hydraulic lime and crushed pottery aggregates reflects traditional Italian building techniques that were used as early as Roman times. The particular paste colour allows the installation of flooring or layers of finish suitable for foot traffic to be avoided.

APPLICATION PHASES

PHASE 1

Preparation of the application sub-base

Prepare the sub-base, positioning the systems to be incorporated into the lightweight screed.

PHASE 2

Application of the lightweight screed

Apply the lightweight screed PAVI ECO LIGHT to fully cover the systems, creating a level surface.

PHASE 3

Application of the screed

Apply the screed PAVI COCCIO and use a straight edge to obtain a level surface. Then work the surface with sanding or beating, and sponge to obtain the desired visual effect.

PHASE 4

Application of the protective treatment

Clean the screed of any residue from the finishing operation and apply the CERA FORTE protective treatment to fully cover the flooring.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	* Thickness (cm)	Incidence (kg/m ²)	Walkability	** Operational time	λ (W/mxK)	Technical data
1	PAVI ECO LIGHT	Bag	5	kg/(m ² ×cm)	5	25	7 days	-	0.12	page 155
2	PAVI COCCIO	Bag	10	kg/(m ² ×cm)	4	64	72 h	42 days	1.15	page 154
	COCCIO GRANULATO	Bag	6	kg/(m ² ×cm)						
3	CERA FORTE	Canister	14	m ² /l	-	-	-	-	-	page 146

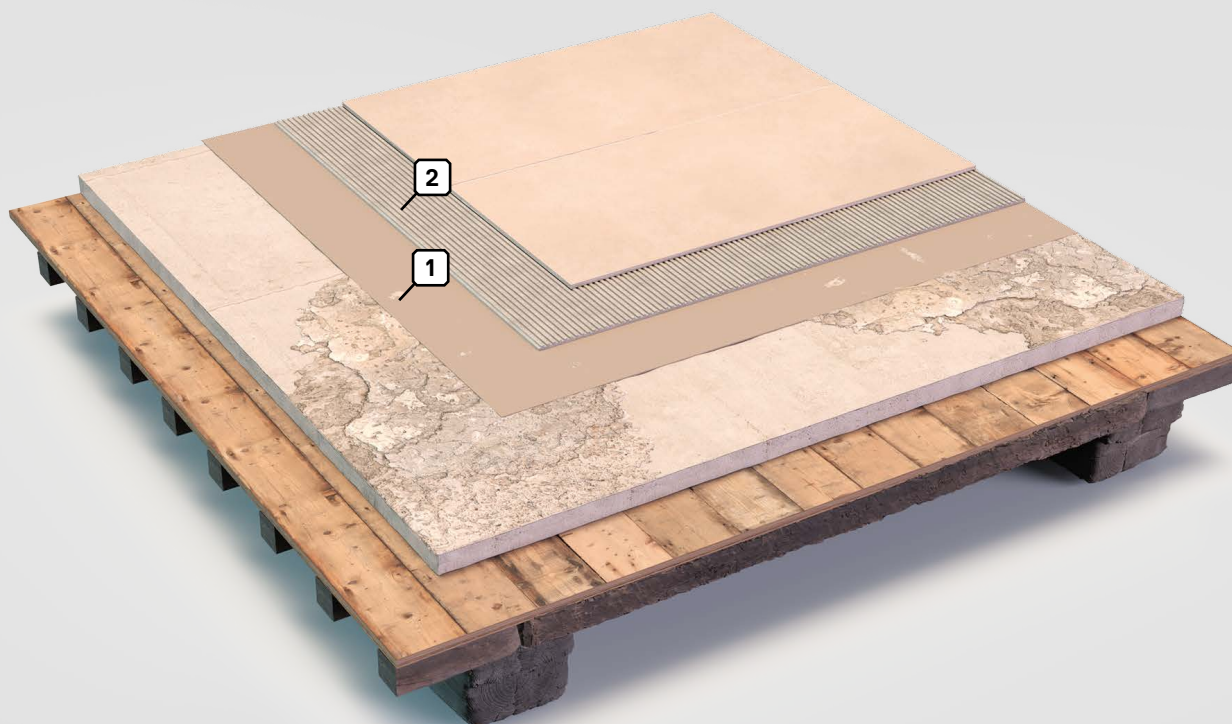
* Recommended value.

** Refers to the possibility of first-time use of radiant floor heating.

TECHNICAL NOTES: • Before sanding and milling, allow the screed to cure properly, in accordance with the indications in the technical documentation. • Assess the need to apply a vapour barrier layer.

LEVELLING

LAY PAVING



DESCRIPTION

System for the adjustment and restoration of deteriorated existing flooring. The wide range of Tassullo products, with varied rheological characteristics, renders the Levelling System suitable for the restoration of subfloors with surface irregularities of varying intensity. The presence of products formulated with natural hydraulic lime NHL 5 guarantees the utmost compatibility with period materials.

SYSTEM FEATURES

- High breathability
- Versatile system
- With natural hydraulic lime NHL 5



COMPONENTS

1	LEVELLING LAYER	1A T LEVEL LOW	Self-levelling smoothing for thicknesses of between 1 and 10 mm	
		1B T LEVEL MAX	Self-levelling smoothing for thicknesses of between 3 and 30 mm	
		1C T LEVEL ECO	Self-levelling smoothing in natural hydraulic lime NHL 5 for thicknesses of between 1 and 10 mm	
		1D PAVI RAPID LOW	Rapid-drying screed for thin layers	
2	ADHESIVE	2A T FIX HP	Highly workable class C2TE cement adhesive	
		2B T FIX ECO	Interior adhesive in natural hydraulic lime NHL 5	

Do you need to level uneven surfaces?

T LEVEL LOW
T LEVEL MAX

→ Thicknesses of between 1 and 30 mm

Are you working in the restoration or bioconstruction field?

T LEVEL ECO
T FIX ECO

→ 100% Natural hydraulic lime NHL 5

Are you looking for a low-thickness product that can be worked like a screed?

PAVI RAPID LOW

→ Consistency of damp earth

APPLICATION PHASES

PHASE 1

Preparation of the application sub-base

Prepare the sub-base by removing any decohesive, crumbly or inconsistent sections. The application surface must be solid and clean.

PHASE 2

Application of the levelling layer

Apply the levelling layer directly on the existing sub-base, totally covering the latter, to create a level surface.

PHASE 3

Application of the flooring

Once the levelling layer has cured and dried, apply the adhesive and position the flooring elements. Choose the adhesive suited to the type and size of the tiles to be applied.

TECHNICAL DATA

Component	Name	Packaging	Yield	U.M.	* Thickness (cm)	Incidence (kg/m ²)	Walkability	** Operational time	*** Paving time	λ (W/mxK)	Technical data
1A	T LEVEL LOW	Bag	1.9	kg/(m ² ×mm)	0.3	6	8 h	21 gg	7 days	1.35	page 153
1B	T LEVEL MAX	Bag	1.9	kg/(m ² ×mm)	1	19	8 h	21 gg	7 days	1.35	page 154
1C	T LEVEL ECO	Bag	1.9	kg/(m ² ×mm)	0.3	6	24 h	42 gg	7 days	1.35	page 153
1D	PAVI RAPID LOW	Bag	20	kg/(m ² ×cm)	2	40	24 h	21 gg	7 days	1.35	page 157
2A	T FIX HP	Bag	3	kg/m ²	-	3	24 - 48 h	14 gg	-	-	page 152
2B	T FIX ECO	Bag	3	kg/m ²	-	3	24 - 48 h	28 gg	-	-	page 151

* Recommended value.

** For screeds and self-levelling products reference is made to the possibility of first-time use of radiant floor heating. For tile adhesives to the possibility of decorating rooms or laying/transiting with significant loads.

*** Indicative waiting time before laying wooden floor, not glued.

TECHNICAL NOTES: • Before applying the levelling layer, verify the solidity, compactness and cleanliness of the sub-base. • In the case of crumbly or poorly cohesive sub-bases, assess the need to apply the consolidating primer T PRIMER. • The products T FIX or T FIX HP FLEX (ideal for large formats) can be used as an alternative to the adhesive T FIX HP in accordance with the type of flooring.

A complete range
to satisfy the needs
of the market.

The products

3

Aqua

- Waterproofing
- Waterproofing for restoration
- Dehumidifying plasters
- Salt treatment
- Impermeable fabrics

The TASSULLO AQUA line includes a complete range of products aimed at restoring and protecting masonry affected by capillary rising, elevated damp content and/or presence of polluting salts.

The systems proposed allow the causes of the problem to be contained and improve the conditions of the masonry, limiting rising damp and carrying out a dehumidifying action. Renovation works guarantee durability over time and contribute to improving the healthiness of indoor environments.

HYDRO BARRIER

Hydrophobic chemical barrier in water-alcohol solution

Water-alcohol solution for the creation of hydrophobic chemical barriers, prepared with specific siloxane derivatives. The specific blend of conveyance of the active ingredient guarantees the utmost penetration and diffusion of the product within damp walls, allowing it to penetrate the surface in a more uniform manner than with traditional standard systems in emulsion or gel form, thus rendering even the smallest pores hydrophobic and interrupting widespread rising damp. The product is free of water-soluble materials and chemical products that are harmful to the materials in the masonry. It does not alter the breathability of the surface and offers complete chemical inertia.

INTENDED USES

HYDRO BARRIER is suitable for application on any brick, masonry, stone or mixed walls, as long as they are free of cavities or gaps, that require the reduction of widespread rising damp. HYDRO BARRIER can be used on walls that are due to be plastered, in combination with the dehumidifying system DRY RIN and DRY SOFT or DRY IDRO, or on exposed masonry, without altering the colour of the wall.

The product is supplied in a kit with HYDRO SACCA, for gravity application with specific system.



Solvent	Water-alcohol solution	Yield	150 ml/mxcm
Appearance	Transparent liquid	Packaging	10 l canister

WATERPROOFING

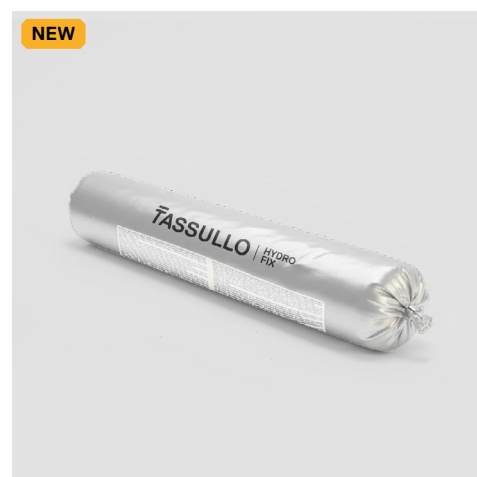
HYDRO FIX

Single-component impermeable sealant

Single-component impermeable sealant for impermeable fabrics and tapes. Highly adhesive, elastic and hermetic, suitable for complex construction elements and resistant to micro-fissures. HYDROFIX technology guarantees uninterrupted liquid proofing at joints and along edges through the anchoring of HYDRO TAPE over the impermeable layer.

INTENDED USES

HYDRO FIX is used to seal HYDRO TAPE over the perimeter joints of an impermeable layer and between adjacent sections of impermeable fabric in order to guarantee continuous waterproofing.



Yield	0.5 kg/m	CE Marking	EN 15651-1; EN 15651-3; EN 15651-4
Mass	1.51 kg/l	Packaging	600 ml chub pack
Open time	Approx. 50 min		

HYDRO STOP

Bicomponent product for the waterproofing of surfaces

Bicomponent waterproofing product made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. HYDRO STOP creates a protective layer that is impervious to water and carbon dioxide, and resistant to de-icing salt, capable of providing resistance to frost and thawing and prolonging the useful lifespan of the treated surface. HYDRO STOP complies with the principles of EN 1504-2 Products and systems for the protection and repair of concrete structures - Surface protection systems for concrete. The product is available in grey or white.

INTENDED USES

HYDRO STOP is used as a protective and waterproofing skim plaster on surfaces in concrete, masonry of any kind, on plaster or screeds with hydraulic binders and on concrete tanks or slabs that need to be protected from absorption or infiltration of water under positive hydrostatic pressure. It can be used either vertically (waterproofing of retaining walls) or horizontally (waterproofing before laying tiles). HYDRO STOP is ideal for protecting concrete with a view to increasing or adapting durability in accordance with exposure class.



Binder	Cementitious
Yield	1.2 kg/m ² ×mm

CE Marking	UNI EN 1504-2:2005: C
Packaging	24 kg bag / 8 l canister

WATERPROOFING FOR RESTORATION

NURAGHE

Mortar in natural hydraulic lime NHL 5 for masonry top layer protection

Hydrophobic mortar made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm for the protection of the upper surface of walls. The technology used in formulating the product allows for the creation of a mortar with excellent durability, adhesion to the surface and resistance to the infiltration of water and the elements, without losing the natural characteristics of natural hydraulic lime, such as breathability, healthiness and the ability to block the formation of mould. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

NURAGHE can be applied to any type of stone or brick masonry that requires elevated protection against infiltration, chemical inertia, low soluble salt content and durability of protection applied. NURAGHE has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works, where it can substitute the creation of surface protection systems in metal or stone to safeguard the integrity of stone masonry.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	17 kg/m ² ×cm
Mass (of hardened product)	1750 - 1850 kg/m ³

Reaction to fire	A1
Packaging	25 kg bag

NURAGHE RASO

Single-component waterproofing in natural hydraulic lime NHL 5

Single-component waterproofing product made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. The product creates a protective waterproof layer resistant to de-icing salts that guarantees full suitability and chemical inertia on surfaces and compatibility with both modern and period masonry.

INTENDED USES

NURAGHE RASO can be applied to any masonry, brick, stone or mixed element or surface requiring elevated chemical inertia and low soluble salt content of the restoration product, guaranteeing the effectiveness and durability of the protective intervention. NURAGHE RASO is a substitute for the creation of surface protection systems in metal to safeguard the integrity of architectural and decorative elements in stone, and it allows for the correct waterproofing of floors requiring reflooring without demolishing the existing sub-base.



100%
NATURAL
LIME

Binder 100% Lime NHL 5

Yield 4 - 6 kg/m²

Packaging

18 kg bag

DEHUMIDIFYING PLASTERS

DRY IDRO

Hydrophobic mortar in natural hydraulic lime NHL 5

Hydrophobic mortar made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant and unreactive to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

DRY IDRO is suitable for use on any brick, masonry, stone or mixed walls or in general on any homogeneous and even external surface requiring elevated chemical inertia and resistance to rising damp, guaranteeing the effectiveness and durability of works. DRY IDRO is particularly suitable for the creation of protective skirting for the lower section of walls that are subject to contact with secondary water from meteorological events or pooling.



100%
NATURAL
LIME

Binder 100% Lime NHL 5

Yield 18 kg/m²×cm

CE Marking and Resistance class EN 998-1: R - CS III

Mass (of hardened product) 1850 - 1950 kg/m³

Water absorption due to capillary action (EN 1015-18) 0.1 kg/(m²×min^{0.5})

Water vapour permeability coefficient (EN 1015-19)

μ = 10

Thermal conductivity (λ10,dry) (EN 1745)

1.11 (tabulated value)
W/m×K

Reaction to fire

A1

Packaging

25 kg bag

DRY PLUS

Plaster for the restoration of retaining walls

Plaster for the restoration of retaining walls made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The technology used in formulating the product allows for the creation of a highly durable and resistant plaster that can contrast the active or passive pressure of water on the masonry and blocking the migration of salts and pollutants, without completely blocking the breathability of the surface, thus improving the healthiness of the internal space and of finishes.

INTENDED USES

DRY PLUS is suitable for application on any brick, masonry, stone or mixed walls or in general on any suitable internal or external masonry surface that the product can adhere to, which is affected by the presence of humidity in sections of wall in direct contact with the ground (retaining walls) and that is therefore affected by active or passive pressure of the water therein.



Binder	Lime NHL 5 based
Yield	18 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: GP - CS IV
Mass (of hardened product)	1800 kg/m ³

Water absorption due to capillary action (EN 1015-18)	Wc2
Water vapour permeability coefficient (EN 1015-19)	μ = 35
Thermal conductivity (λ10,dry) (EN 1745)	0.82 (tabulated value) W/m×K
Packaging	25 kg bag

DEHUMIDIFYING PLASTERS

DRY RIN

Salt-resistant rough base in natural hydraulic lime NHL 5

Anti-saline rough-base mortar made with the purest natural hydraulic lime and dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the highest quality and the technology used in formulation allow for the creation of a highly dehumidifying, durable and breathable product that is able to regulate the dehumidification process and the conveyance of salts, protecting the successive layers of plaster from the rapid migration of these substances from the surface and thus guaranteeing the resistance and effectiveness of the works carried out.

INTENDED USES

DRY RIN is used on all types of masonry surface requiring absorbed humidity to be eliminated without the surface appearance of crystals that alter the visual aspect and compromise the durability of the plaster, for the subsequent application of macroporous or hydrophobic dehumidifying plasters. DRY RIN has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



Binder	100% Lime NHL 5
Yield	4 - 6 kg/m ²
CE Marking and Resistance class	EN 998-1: R - CS II
Mass (of hardened product)	1600 - 1700 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	μ = 18
Thermal conductivity (λ10,dry) (EN 1745)	0.61 (tabulated value) W/m×K
Packaging	25 kg bag

DRY SOFT

Macroporous dehumidifying plaster in natural hydraulic lime NHL 5

Dehumidifying macroporous plaster made with the purest natural hydraulic lime, mineral dolomitic aggregates and perlite with a constant grading curve of between 0 and 3 mm. The inter-connected capillary structure and the controlled presence of pores, combined with a precise index of water absorption due to capillary action, allows for an elevated capacity to eliminate water through evaporation. The product is resistant and unreactive to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

DRY SOFT is suitable for use on any brick, masonry, stone or mixed walls or in general on any homogeneous and even internal or even external surface provided it is above ground, where it is necessary to eliminate absorbed humidity without producing the surface appearance of crystals. Avoid using DRY SOFT in direct contact with secondary water, such as external pavements or ground directly in contact with the plaster.



Binder	100% Lime NHL 5
Yield	9 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: R - CS II
Mass (of hardened product)	900 - 1100 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 6$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.33 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	20 kg bag

IMPERMEABLE FABRICS

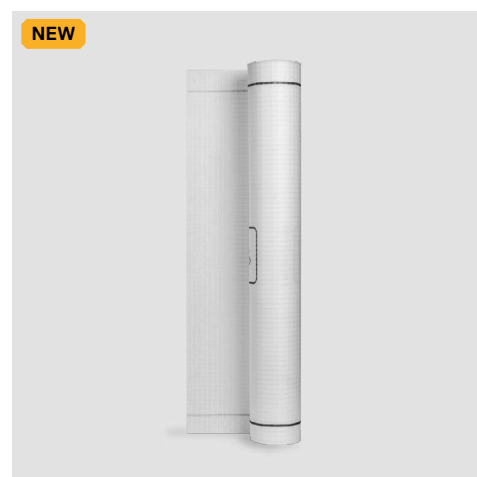
HYDRO MULTI LAYER

Four-layer impermeable and separating fabric

Impermeable and separating fabric for the application of finishes to floors and walls on existing substrates and/or in damp environments, composed of four functional layers in polypropylene, polyurethane and fibreglass. The technology and layering of the materials selected allows for separation from the application substrate, mitigating the formation of surface cracks while liquid-proofing the substrate, at the same time permitting evaporation and the consequential drying of underlying materials.

INTENDED USES

HYDRO MULTI LAYER is suitable for vertical or horizontal application on any indoor or outdoor level surface suitable for adhesion with the specific anchoring agent, which requires waterproofing or that may lead to fractures in a successive layer. HYDRO MULTI LAYER may be applied over old flooring. The reduced thickness of HYDRO MULTI LAYER, less than 1 mm, is particularly suitable for restructuring works, allowing floor and threshold heights to be maintained, and avoiding the loss of available space.



Thickness	0.75 mm
Fabric mass	327 g/m ²

Water vapour diffusion resistance (Sd)	0.5 m
Confezione	Roll 1x10 m ²

HYDRO TAPE

Impermeable tape with non-woven fabric

Impermeable tape made with non-woven fabric for the creation of joints in liquid impermeabilising products or impermeable fabrics, for handling edges or sections on large surfaces. Due to its elevated elasticity, HYDRO TAPE guarantees continuous proofing even in the case of tension, shrinkage or movement of the substrate. The product is available in the HYDRO TAPE 120 format for linear elements, HYDRO TAPE INNER CORNER and HYDRO TAPE OUTER CORNER for managing corners, and HYDRO TAPE COVER for sealing penetrating elements.

INTENDED USES

HYDRO TAPE is specifically designed to ensure continuity for liquid proofing obtained with multiple sections of HYDRO MULTI PLAYER fabric laid side-by-side and for managing all floor-wall joints, including with liquid impermeabilising systems.



Thickness	0.66 mm
Fabric mass	364 g/m ²

Water vapour diffusion resistance (Sd) 16 m

Packaging 0.12x50 m² roll
Special element, box of 10 pcs

SALT TREATMENT

T SAL

Anti-saline liquid solvent treatment

Anti-saline organic solvent highly penetrating liquid polymer treatment offering excellent resistance to alkalines. T SAL offers full chemical inertia with respect to the surface and obstructs saline migration in the presence of water without reducing the breathability of the surface. This allows for the subsequent application of macroporous dehumidifying plasters without risking saturation of the porosity of the latter due to the crystallisation of salts.

INTENDED USES

T SAL is suitable for application on any brick, masonry, stone or mixed walls or in general on any surface with elevated saline content, where an anti-saline treatment is required before proceeding with the creation of a rough base and dehumidifying plaster, as part of restoration works for wall faces affected by humidity. T SAL is a product that has been optimised to maximise compatibility with period masonry, and it is particularly suitable for restoration works.



Solvent	White spirit
Appearance	Transparent liquid
Specific weight	0.8 kg/l

Yield 2 - 4 m²/l

Packaging 5 l canister

Armis

- Impregnating agents/sealants
- Structural mortars
- Injection compounds
- Reinforcement meshes
- Special reinforcements
- Concrete restoration
- Anchoring systems
- Reinforcement fabrics

The TASSULLO ARMIS line includes structural mortars, meshes and anchoring systems for the consolidation, restoration and securing of both masonry and concrete structures.

The products are suitable for applications ranging from classical techniques for historical restoration to more modern techniques using fibre-reinforced composite systems. A complete range of systems accompanied by European and Italian certifications that allow their use for structural purposes, in line with the requirements of current regulations.

CARBON EPOX

Bi-component epoxy resin for FRP systems

High-performance epoxy impregnating agent and adhesive for bi-component FRP systems composed of:

- Component A: a compound of liquid epoxy prepolymers, fillers and additives.
- Component B: a co-polymerisation amine.

Once fully cured, the material becomes a yellowed transparent solid with excellent hardness, resistance to compression and tensile strength.

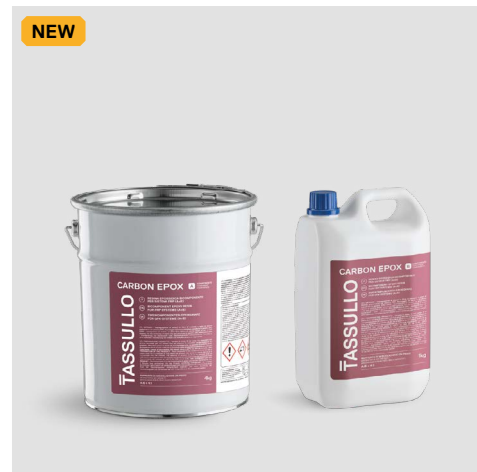
INTENDED USES

CARBON EPOX is used for the reinforcement of structural elements with polymer-matrix composite systems and, together with the fabrics ARMIS CARBON 300, ARMIS CARBON 600 and ARMIS CARBON QUAD, forms part of the FRP CARBON 300, FRP CARBON 600 and FRP CARBON QUAD systems. The rheological characteristics of the product allow it to be easily and quickly mixed and promote the efficient impregnation of the fibres in carbon-fibre fabrics while avoiding vertical running.

**Certified ETA in combination with ARMIS CARBON 300 or ARMIS CARBON 600 or ARMIS CARBON QUAD*

Mixing ratio by weight (A : B)	4 : 1
Yield	1.1 kg/m ² xmm

CE Marking	EN 1504-4, EN 1504-6
Packaging	Containers 4 kg can / 1 kg canister



IMPREGNATING AGENTS/SEALANTS

CARBON FIX

Bi-component epoxy primer for FRP systems

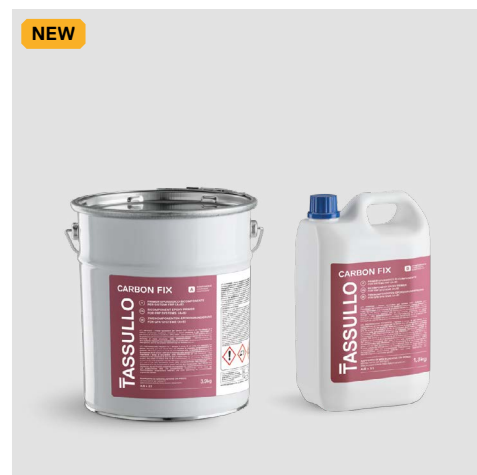
Bi-component epoxy primer for FRP systems and fluid adhesive for the anchoring of reinforcements and for structural reinforcement through low-pressure injection. CARBON FIX is a transparent and fluid epoxy resin, suitable for application to a wide range of supports thanks to its significant impregnating, consolidating and adhesive properties, and the absence of shrinkage during vulcanisation.

INTENDED USES

CARBON FIX is suitable for application on all the most common types of construction support both indoors and outdoors. CARBON FIX is suitable for use as an epoxy primer for FRP systems, as an adhesive for anchoring and structural reinforcement through low-pressure injection and for the precise anchoring of metal structures.

Mixing ratio by weight (A : B)	3 : 1
Yield (primer for FRP systems)	0.15 - 0.20 kg/m ²

Yield (anchoring and injection)	0.92 - 0.93 kg/l
Packaging	Containers 3.9 kg can / 1.3 kg canister



FORTE BETON

High resistance structural mortar for machine application

Structural grout made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm and optimised for machine application. The combination of raw materials of the utmost quality allows for a product with excellent mechanical properties, durability and high application speed.

INTENDED USES

FORTE BETON is particularly suitable for the creation of rough bases and consolidating grout in cases that require elevated mechanical resistance. FORTE BETON is suited for application as a structural mortar in CRM systems for the consolidation of structural elements in brick, natural stone, soft stone or mixed masonry such as walls and vaulted systems and can be efficiently combined the components of the CRM SYSTEM.



Binder	Cementitious
Yield	19 kg/m ² ×cm
Mass (of hardened product)	1750 - 1850 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M10, M20, M30, M40

Water vapour permeability coefficient (EN 1015-19) $\mu = 15/35$ (tabulated value)

Reaction to fire A1

Packaging 25 kg bag

STRUCTURAL MORTARS

FORTE CALCE

Structural mortar in natural hydraulic lime NHL 5 for structural reinforcement

Structural mortar made exclusively with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm and optimised for machine application. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

FORTE CALCE is suitable for use as a structural bedding mortar in patching works consisting of the partial demolition and reconstruction of damaged or eroded sections of masonry, for the creation of rough bases for consolidation, cladding and infill, and for restoring mortar joints, and as structural mortar in the creation of CRM systems for the consolidation of structural elements in brick, natural stone, soft stone or mixed masonry such as walls and vaulted systems, and can be efficiently combined with the components of the CRM and CRM RESTORATION SYSTEMS. FORTE CALCE is optimised to maximise compatibility with period masonry, guaranteeing excellent mechanical properties, and is particularly suited to restoration works.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	18 kg/m ² ×cm
Mass (of hardened product)	1800 - 1900 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M5, M10, M15

Water vapour permeability coefficient (EN 1015-19) $\mu = 15/35$ (tabulated value)

Reaction to fire A1

Packaging 25 kg bag

STRUCTURAL MORTARS

FORTE LIGHT

Lightweight structural mortar with natural hydraulic lime NHL 5

Lightweight structural grout made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 3 mm and optimised for machine application. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability, lightness and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. Its low specific weight allows for improvement of the conductivity of the wall, ease of application and on-site timing optimisation.

INTENDED USES

FORTE LIGHT is particularly suited for use as a structural mortar in CRM systems for the consolidation of structural elements in brick, natural stone, soft stone or mixed masonry such as walls or vaulted systems requiring a combination of mechanical resistance and lightness. FORTE LIGHT efficiently combines with the components of the CRM and CRM RESTORATION SYSTEMS.



Binder	Lime NHL 5 based
Yield	10 kg/m ² ×cm
Mass (of hardened product)	950 - 1050 kg/m ³
CE Marking and Resistance class	EN 998-2: L - M10

Water vapour permeability coefficient (EN 1015-19)	$\mu = 5/20$ (tabulated value)
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.45 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	20 kg bag

STRUCTURAL MORTARS

FORTE MEC

Structural plaster with natural hydraulic lime NHL 5 for machine application

Structural grout made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The product is optimised for machine application, facilitating application and substantially reducing the formation of cracks. It is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

FORTE MEC is particularly suited for use as a structural mortar in CRM systems for the consolidation of structural elements in brick, natural stone, soft stone or mixed masonry such as walls or vaulted systems. FORTE MEC efficiently combines with the components of the CRM and CRM RESTORATION SYSTEMS. FORTE MEC is a product formulated to obtain the best balance of workability and compatibility with existing masonry and is particularly suitable for valuable restoration works requiring compatibility with original materials.



Binder	Lime NHL 5 based
Yield	18 kg/m ² ×cm
Mass (of hardened product)	1750 - 1850 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M5, M10, M15

Water vapour permeability coefficient (EN 1015-19)	$\mu = 15/35$ (tabulated value)
Reaction to fire	A1
Packaging	25 kg bag

FORTE MULTI

Structural mortar with natural hydraulic lime NHL 5 for composite structural reinforcement

Structural grouting made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm and optimised for machine application. The product has been optimised for use with variable thicknesses, is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

FORTE MULTI is particularly suited for use as a matrix in inorganic matrix fibre-reinforced composites for the consolidation of structural elements in brick, natural stone, soft stone or mixed masonry such as walls and vaulted systems, and forms part of the FRCM MULTI SYSTEM. FORTE MULTI has been optimised to be used on masonry requiring variable thickness of plaster and it is particularly suited to valuable restoration works where the best balance between workability and compatibility with existing masonry is required.

* ETA Certification in combination with ARMIS VETROAR 20x20

Binder	Lime NHL 5 based
Yield	18 kg/m ² ×cm
Mass (of hardened product)	1800 - 1900 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M15



Water vapour permeability coefficient (EN 1015-19)	$\mu = 15/35$ (tabulated value)
Reaction to fire	A1
Packaging	25 kg bag

STRUCTURAL MORTARS

FORTE RASO

Structural skim plaster in natural hydraulic lime NHL 5 for composite structural reinforcement

Structural skim plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The product has been optimised for low-thickness applications, is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

FORTE RASO is particularly suited for use as a matrix in inorganic matrix fibre-reinforced composites for the consolidation of structural elements in brick, natural stone, soft stone or mixed masonry such as walls and vaulted systems, and forms part of the FRCM RESTORATION SYSTEM. FORTE RASO has been optimised to maximise compatibility with period masonry, guaranteeing excellent mechanical properties, and is particularly suited to restoration works. Its elevated adhesive strength allows the product to also be applied to old, previously plastered surfaces, if they are well anchored to the substrate, compact and not crumbly.

* ETA Certification in combination with ARMIS VETROAR 20x20, ARMIS VETROAR 16x16, ARMIS BASALTO 20x20

Binder	100% Lime NHL 5
Yield	12 - 15 kg/m ²
Mass (of hardened product)	1550 - 1650 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M5



Water vapour permeability coefficient (EN 1015-19)	$\mu = 15/35$ (tabulated value)
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.82 (tabulated value)
Packaging	25 kg bag

FORTE RIPARA

Structural mortar with natural hydraulic lime NHL 5

Structural mortar made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

FORTE RIPARA is particularly suitable for use as a structural bedding mortar in patching works consisting of the partial demolition and reconstruction of damaged or eroded sections of masonry, for the creation of rough bases for consolidation, cladding and infill, for restoring mortar joints, and is suited for application as a structural mortar in CRM systems for the consolidation of structural elements in brick, natural stone, soft stone or mixed masonry such as walls and vaulted systems. FORTE RIPARA is a product formulated to obtain the best balance of workability and compatibility with existing masonry and is particularly suitable for valuable restoration works requiring compatibility with original materials.



Binder	Lime NHL 5 based
Yield	18 kg/m ² ×cm
Mass (of hardened product)	1800 - 2000 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M5, M10, M15

Water vapour permeability coefficient (EN 1015-19) $\mu = 15/35$ (tabulated value)

Reaction to fire A1

Packaging 25 kg bag

INJECTION COMPOUNDS

FORTE FLUID

Natural hydraulic lime NHL 5 compound for consolidating injections

Specific inorganic compound for the creation of consolidation injections made exclusively with natural hydraulic lime and selected dolomitic aggregates. Anti-shrinkage, with low soluble salt content, resistant to sulphates and compatible with brick, natural stone, soft stone and mixed masonry. Thanks to its mineral composition, FORTE FLUID does not react in the presence of sulphates, allowing to maximise the chemical and physical compatibility of consolidation systems in which it is used. FORTE FLUID guarantees the restoration of mechanical resistance and structural evenness for masonry without creating local rigid or mechanically uneven sections.

INTENDED USES

FORTE FLUID is suitable for the consolidation of structural elements in brick, natural stone, soft stone or mixed masonry which present inconsistent portions, detached faces or incoherent cores, or in all cases requiring to restore the firmness of masonry portions. In these situations, low viscosity and controlled grading curve allow FORTE FLUID to ensure the utmost filling of gaps within the masonry. FORTE FLUID is a product that is optimised to maximise compatibility with period masonry, and it is particularly suitable for restoration works.



Binder	100% Lime NHL 5
Chloride content	< 0.05%
Yield	80 - 150 kg/m ³

CE Marking EN 998-2:G - M5

Mass (of hardened product) 1700 - 1800 kg/m³

Packaging 20 kg bag

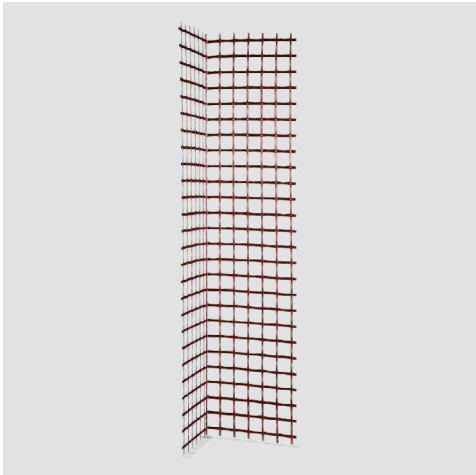
ARMIS ANGOLARE 40×40

Preformed 40×40 mm² corner piece in alkaline-resistant glass-fibre

Preformed coated alkaline-resistant fibreglass corner element, 40×40 mm² mesh, with 25 cm-long lapels, weight 305 g/m². ARMIS ANGOLARE 40×40 offers excellent mechanical characteristics and durability and is stable in alkaline environments.

INTENDED USES

ARMIS ANGOLARE 40×40 can be used within CRM reinforcement systems, where it serves to guarantee continuity of reinforcement on corners formed by structural elements where it is necessary to interrupt the mesh. In these specific areas, the product counters tension that may be generated in structural elements due to static or seismic phenomena, increasing the resistance and ductility of the masonry. ARMIS ANGOLARE 40×40 allows for easy and rapid application limiting system thickness.



**ETA Certification in combination with ARMIS VETROAR 40×40 and ARMIS VETROAR 40×40 FORTE*

Mass of coated fabric	305 g/m²
Mesh size	38×38 mm²
Nominal cross-section of single wire (weft)	5.27 mm²



Nominal cross-section of single wire (warp)	3.21 mm²
Single wire tensile strength (characteristic value, warp)	1.42 kN
Packaging	25 pieces box

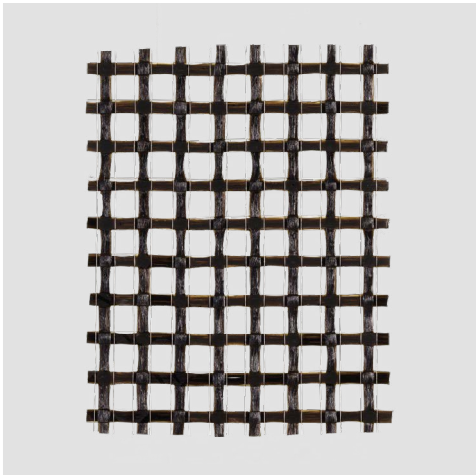
ARMIS BASALTO 20×20

Bi-directional structural 20×20 mm² basalt-fibre and steel mesh

Bi-directional structural and balanced 20×20 mm² coated basalt-fibre and steel mesh, weight 420 g/m², suitable for the reinforcement of walls, vaults, arches and floors in brick, natural stone, soft stone or mixed masonry. ARMIS BASALTO 20×20 offers excellent mechanical characteristics and durability and is stable in alkaline environments.

INTENDED USES

ARMIS BASALTO 20×20 can be used to reinforce structural elements such as walls, vaults and floors in brick, stone, tuff or mixed masonry with inorganic matrix fibre-reinforced composite systems (FRCM) and for the creation of restraints for the securing of non-structural walls and ceilings. ARMIS BASALTO 20×20 serves to counter tensile stresses that may be generated in structural elements due to static or seismic phenomena, increasing the resistance and flexibility of the masonry without significantly increasing its stiffness.



**ETA Certification in combination with FORTE RASO*

Mass of coated fabric	420 g/m²
Mesh size	20×20 mm²



Characteristic tensile strength (warp)	1143.15 MPa
Packaging	1.6×25 m² roll

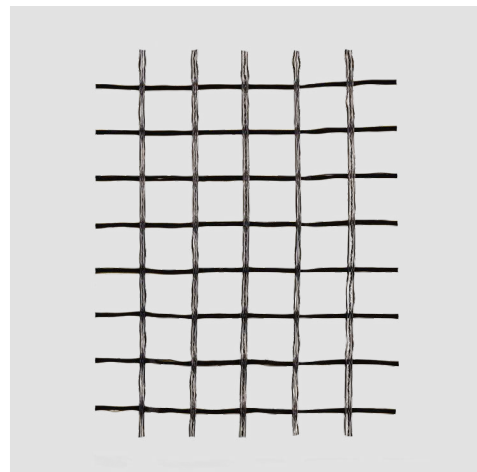
ARMIS BASALTO 25×25

Bi-directional 25×25 mm² basalt-fibre mesh

Bi-directional 25×25 mm² coated basalt-fibre mesh, weight 220 g/m², suitable for the creation of systems for the securing of non-structural elements. ARMIS BASALTO 25×25 offers excellent mechanical characteristics and durability and is stable in alkaline environments.

INTENDED USES

ARMIS BASALTO 25×25 can be used in combination with mortars and accessories from the TASSULLO ARMIS line for the creation of systems aimed at securing non-structural floor ceilings and partition walls in buildings with reinforced concrete frames with respect to instability or expulsion. The mesh is flexible and allows for easy and rapid application and reduced thicknesses.



Mass of coated fabric	220 g/m ²
Mesh size	25×25 mm ²

Characteristic tensile strength (weft and warp)	50 kN/m
Packaging	1×50 m ² roll

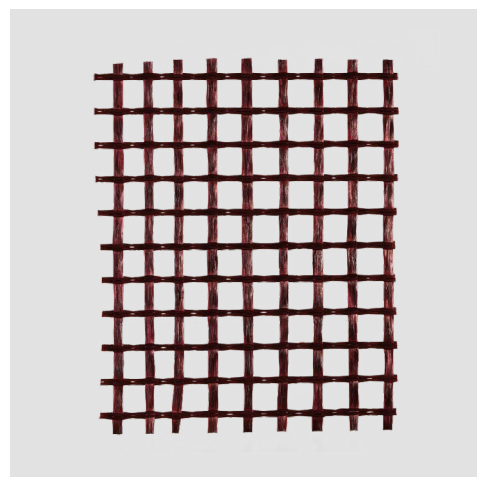
ARMIS VETROAR 16×16

Bi-directional structural 16×16 mm² alkaline-resistant glass-fibre mesh

High-strength coated bi-directional structural mesh made of alkaline-resistant glass-fibre, interaxis between strands 16×16 mm², weight 675 g/m², suitable for the reinforcement of walls, vaults, arches or floors in brick, natural stone, soft stone or mixed masonry. ARMIS VETROAR 16×16 offers excellent mechanical characteristics and durability and is stable in alkaline environments.

INTENDED USES

ARMIS VETROAR 16×16 can be used to reinforce structural elements such as walls, vaults and floors in brick, stone, tuff or mixed masonry with inorganic matrix fibre-reinforced composite systems (FRCM) and for the creation of restraints for the securing of non-structural walls and ceilings. ARMIS VETROAR 16×16 serves to counter tensile stresses that may be generated in structural elements due to static or seismic phenomena, increasing the resistance and flexibility of the masonry without significantly increasing its stiffness.



*ETA Certification in combination with FORTE RASO

Mass of coated fabric	675 g/m ²
Mesh size	16×16 mm ²

Characteristic tensile strength (warp)	963.25 MPa
Packaging	1×50 m ² or 0.5×50 m ² roll

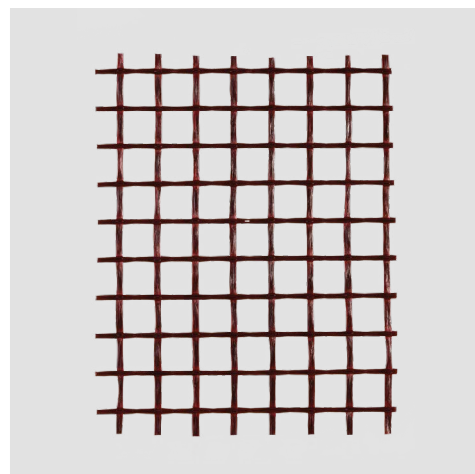
ARMIS VETROAR 20×20

Bi-directional structural 20×20 mm² alkaline-resistant glass-fibre mesh

Bi-directional coated structural mesh made of alkali-resistant glass-fibre, interaxis between strands 20×20 mm², weight 320 g/m², suitable for the reinforcement of walls vaults, arches or floors in brick, natural stone, soft stone or mixed masonry. ARMIS VETROAR 20×20 offers excellent mechanical characteristics and durability and is stable in alkaline environments.

INTENDED USES

ARMIS VETROAR 20×20 can be used to reinforce structural elements such as walls, vaults and floors in brick, stone, tuff or mixed masonry with inorganic matrix fibre-reinforced composite systems (FRCM) and for the creation of restraints for the securing of non-structural walls and ceilings. ARMIS VETROAR 20×20 serves to counter tensile stresses that may be generated in structural elements due to static or seismic phenomena, increasing the resistance and ductility of the masonry without significantly increasing its stiffness.



*ETA Certification in combination with FORTE RASO and FORTE MULTI

Mass of coated fabric	320 g/m ²
Mesh size	20×20 mm ²

Characteristic tensile strength (warp)	863.46 MPa
Packaging	1×50 m ² or 0.5×50 m ² roll

REINFORCEMENT MESHES

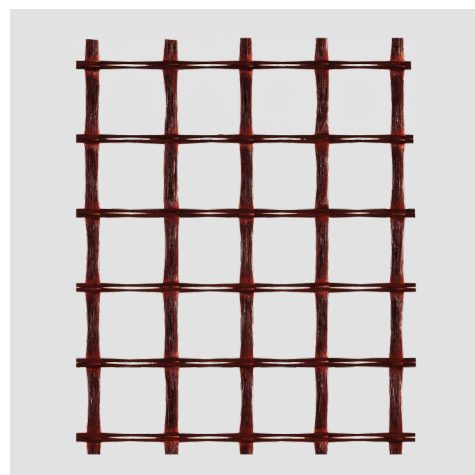
ARMIS VETROAR 40×40

Bi-directional structural 40×40 mm² alkaline-resistant glass-fibre mesh

Bi-directional 38×38 mm² alkaline-resistant coated glass-fibre mesh, weight 305 g/m², suitable for the reinforcement of walls, vaults, arches or floors in brick, natural stone, soft stone or mixed masonry. ARMIS VETROAR 40×40 offers excellent mechanical characteristics and durability and is stable in alkaline environments.

INTENDED USES

ARMIS VETROAR 40×40 can be used in CRM reinforcement systems where it serves to counter tensile stresses that may be generated in structural elements due to static or seismic phenomena, increasing the resistance and ductility of the masonry. Thanks to its rigidity, the mesh allows for easy and rapid application with reduced thicknesses and can be efficiently combined with mortars in natural hydraulic lime from the TASSULLO ARMIS line, ensuring the utmost compatibility of work cycles.



*ETA Certification in combination with ARMIS ANGOLARE 40×40

Mass of coated fabric	305 g/m ²
Mesh size	38×38 mm ²
Nominal cross-section of single wire (weft)	5.27 mm ²

Nominal cross-section of single wire (warp)	3.21 mm ²
Characteristic tensile strength (warp)	792 MPa
Packaging	1×50 m ² roll

ARMIS VETROAR 40×40 FORTE

High-resistance bi-directional structural 40×40 mm² alkaline-resistant glass-fibre mesh

High-resistance bi-directional 38×38 mm² alkaline-resistant coated fibreglass mesh, weight 615 g/m², suitable for the reinforcement of walls, vaults, arches or floors in brick, natural stone, soft stone or mixed masonry. ARMIS VETROAR 40×40 FORTE offers excellent mechanical characteristics and durability and is stable in alkaline environments.

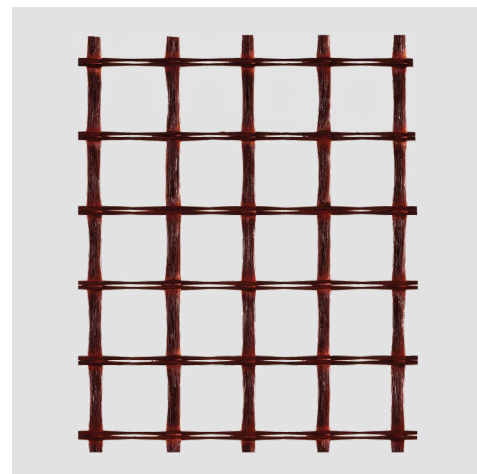
INTENDED USES

ARMIS VETROAR 40×40 FORTE can be used in CRM reinforcement systems where it serves to counter tensile stresses that may be generated in structural elements due to static or seismic phenomena, increasing the resistance and ductility of the masonry. Thanks to its rigidity, the mesh allows for easy and rapid application with reduced thicknesses and can be efficiently combined with mortars in natural hydraulic lime from the TASSULLO ARMIS line, ensuring the utmost compatibility of work cycles.

*ETA Certification in combination with ARMIS ANGOLARE 40×40

Mass of coated fabric	615 g/m ²
Mesh size	38×38 mm ²
Nominal cross-section of single wire (weft)	12.24 mm ²

Nominal cross-section of single wire (warp)	6.86 mm ²
Characteristic tensile strength (warp)	596 MPa
Packaging	1×50 m ² or 1×25 m ² roll



REINFORCEMENT MESHES

ARMIS VETROAR 50×50

Bi-directional structural 50×50 mm² alkaline-resistant glass-fibre mesh

Soft coated bi-directional 50×50 mm² alkaline-resistant fibreglass mesh, weight 335 g/m², suitable for the reinforcement of walls, vaults, arches or floors in brick, natural stone, soft stone or mixed masonry. ARMIS VETROAR 50×50 has excellent mechanical and durability characteristics and is stable in an alkaline environment.

INTENDED USES

ARMIS VETROAR 50×50 can be used in CRM reinforcement systems where serves to counter tensile stresses that may be generated in structural elements due to static or seismic phenomena, increasing the resistance and ductility of masonry. Thanks to its flexibility it can also be used in masonry that is not perfectly level, common in period architecture. The mesh allows for easy application with reduced thicknesses and can be efficiently combined with mortars in natural hydraulic lime from the TASSULLO ARMIS line, ensuring the utmost compatibility of work cycles.

*ETA Certification in combination with ARMIS VETROAR FIOCCO OH1/OH2 or ARMIS VETROAR ELLE and ARMIS BFLUID CONNECT

Mass of coated fabric	335 g/m ²
Mesh size	50×50 mm ²
Nominal cross-section of single wire (weft)	6.16 mm ²

Nominal cross-section of single wire (warp)	6.33 mm ²
Characteristic tensile strength (warp)	495.87 MPa
Packaging	1×50 m ² or 2×50 m ² roll



BETONTASS

Ready mix concrete in powder form

Ready-to-use concrete in powder form made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The combination of raw materials of the utmost quality allows for the creation of a product with excellent mechanical properties, that is durable and allows for rapid application.

INTENDED USES

BETONTASS is suitable for the creation of reinforced or non-reinforced concrete manufacts of limited volume such as curbs, cover or completion castings for walls, small castings for filling horizontal formwork, filling cavities, restoring of floor castings or underpinning. The product is compatible with all metal or composite reinforcement elements used in normal concrete and can also be used for exposed facade casting.



Binder	Cementitious
Yield	0.55 m ³ /ton
Classification	EN 998-2: G - M25, M30

Mass (of hardened product)	2100 - 2200 kg/m ³
Reaction to fire	A1
Packaging	25 kg bag

SPECIAL REINFORCEMENTS

GUNITASS

High resistance ultra-rapid spray concrete

Ultra-rapid sprayable grouting with high mechanical resistance, made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. GUNITASS allows for rapid application at elevated thickness, limiting material waste. It allows for the obtaining of mixtures that offer high mechanical performance and with constant consistency during application.

INTENDED USES

GUNITASS is suitable for the reinforcing and consolidation of brick, natural stone, soft stone or mixed masonry, soldier pile walls or retaining walls in stone or concrete, scarified concrete, rocky banks, and for tunnel cladding. GUNITASS is recommended for consolidation works and is compatible with consolidation techniques that require the use of reinforcement with bars, fixing tie rods, riveting, steel, fibreglass, carbon-fibre or composite mesh.



Binder	Cementitious
Yield	20 kg/m ² ×cm
Mass (of hardened product)	1850 - 1950 kg/m ³

Resistance class	RC40
Reaction to fire	A1
Packaging	25 kg bag

TRAV

Reoplastic product for fluid mixtures for filling, micropiles and fixing injections

Ready-to-use reoplastic product made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the utmost quality allows for the creation of a product with excellent mechanical properties and controlled shrinkage, for fluid filling mixtures.

INTENDED USES

TRAV is recommended for the creation of fluid filling mixtures for the construction of micropiles.



Binder	Cementitious
Yield	0.55 m ³ /ton
Mass (of hardened product)	1850 - 1900 kg/m ³

Resistance class	RC25, RC40
Reaction to fire	A1
Packaging	25 kg bag

CONCRETE RESTORATION

RENOVA

Concrete restoration mortar for applications of between 3 and 40 mm

Thixotropic mortar for reconstruction and skim coats of thicknesses from 3 to 40 mm made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of raw materials of the utmost quality allows for the creation of a product with compensated shrinkage and with excellent mechanical properties and durability, resistant to sulphates, freezing-thawing cycles, de-icing salts and carbonation.

INTENDED USES

RENOVA is suitable for the restoration and skim-coating of deteriorated structures in reinforced concrete, including the reconstruction of bar cover or of a volumetric section of the construction element, applicable in thicknesses of up to 40 mm per coat, RENOVA is suitable for the creation of protective skim coats and finishes in thicknesses of at least 3 mm on single frames in non-reinforced, reinforced or pre-compressed concrete with only surface deterioration or previously volumetrically restored.



Type of binder	Cement
Yield	16 kg/m ² x cm
Adhesion time (EN 196-1)	60 min

CE Marking	EN 1504-3: R4; EN 1504-2
Anchoring to concrete (EN 1542)	> 2 MPa
Packaging	25 kg bag

RENOVA CONNECT

Mortar for structural anchoring

Mortar made with hydraulic binders, mineral dolomitic aggregates, optimised for the anchoring of steel bars to concrete. The combination of raw materials of the utmost quality allows for the creation of a product with zero shrinkage and with excellent mechanical properties and durability, resistant to sulphates and freezing-thawing cycles.

INTENDED USES

RENOVA CONNECT is used for the structural anchoring of steel tensioners or bars to re-inforced concrete.



Type of binder	Cement
Yield	ca. 0.58 l/kg
Adhesion time (EN 196-1)	45 min

CE Marking	EN 1504-6
Volumetric mass (fresh mortar)	approx. 2100 kg/m³
Packaging	20 kg bag

RENOVA FINISH

Protective skim plaster for concrete

Polymer-modified skim plaster characterised by elevated adhesion and low permeability to water and carbon dioxide, made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. The combination of raw materials of the utmost quality allows for the creation of a product with excellent mechanical properties and durability, resistant to frost and to de-icing salts, and offers excellent protection to the substrates to which it is applied.

INTENDED USES

RENOVA FINISH is used for protective skim plasters and finishes of thicknesses of between 2 and 4 mm on single frames in non-reinforced, reinforced or prestressed concrete, and is particularly recommended for applications on surfaces that were previously treated with the concrete restoration products from the TASSULLO ARMIS line. Thanks to its low permeability to carbon dioxide and water, RENOVA FINISH significantly contributes to the protection of reinforcement rods in concrete, impeding or slowing their oxidation.



Binder	Cementitious
Yield	3 - 4 kg/m²
Setting time (EN 196-1)	> 90 min

CE Marking	EN 1504-3: R2
Packaging	25 kg bag

RENOVA FLUID

Pourable filling mortar for concrete reconstruction

Pourable mortar made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The combination of raw materials of the utmost quality allows for the creation of a product with controlled shrinkage and with excellent mechanical properties and durability, resistant to frost and to de-icing salts. Thanks to its elevated elasticity, extremely low permeability to aggressive agents (oxygen, chlorides, carbon dioxide) and high adhesion to concrete, it allows for the creation of durable restoration works, prolonging the useful life of reinforced concrete (absence of corrosion).

INTENDED USES

RENOVA FLUID is used for the reconstruction and restoration of reinforced concrete structures in cases requiring the application of a fluid mortar with elevated mechanical characteristics and controlled shrinkage, specifically for the reconstruction of portions of reinforced concrete deteriorated by corrosion of metal reinforcement or for the structural reinforcing of load-bearing elements in concrete such as the enlarging of beams or pillars. The product is also suitable for the inglobation of suppletive of castings for industrial flooring, and it is compatible with reinforcement meshes and metal reinforcements.



Binder	Cementitious
Yield	19 kg/m ² ×cm
Setting time (EN 196-1)	> 90 min

CE Marking	EN 1504-3: R4
Adhesion to concrete (EN 1542)	> 2 N/mm ²
Packaging	25 kg bag

RENOVA FLUID HP

High-performance pourable mortar for concrete reconstruction

Pourable mortar for the restoration and enlarging of concrete, made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the utmost quality allows for the creation of a product with compensated shrinkage and with excellent mechanical properties and durability, resistant to sulphates, freezing-thawing cycles, de-icing salts and carbonatation.

INTENDED USES

RENOVA FLUID HP is suitable for the reconstruction and restoration of deteriorated structures in reinforced concrete, specifically for the structural reinforcement of concrete load-bearing structures such as the enlarging of beams, pillars or floors through pouring into formwork or application to the extrados of horizontal elements. The product is also suitable for the reintegration of castings for industrial flooring.



Type of binder	Cement
Yield	19 kg/m ² × cm
Adhesion time (EN 196-1)	60 min

CE Marking	EN 1504-3: R4
Anchoring to concrete (EN 1542)	> 3 MPa
Packaging	25 kg bag

RENOVA MEC

Sprayable mortar for the reconstruction of concrete

Thixotropic mortar for reconstruction made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm, optimised for machine application. The combination of raw materials of the utmost quality allows for the creation of a product that is waterproof, with compensated shrinkage and with excellent mechanical properties and durability, resistant to sulphates, freezing-thawing cycles, de-icing salts and carbonatation.

INTENDED USES

RENOVA MEC is suitable for the reconstruction and restoration of deteriorated structures in reinforced concrete, including the reconstruction of bar cover or of a volumetric section of the construction element. Applicable in thicknesses of up to 40 mm per coat, it is specifically suited to interventions that require a machine-applicable product that is easily pumped onto large surfaces such as viaduct pillars, bridges, canals, tunnels, beams, pillars, and pre-fabricated concrete structures, or for the levelling of areas with surface defects such as segregation in concrete or spacer holes, or for joint reinforcement.



Type of binder	Cement
Yield	18 kg/m ² x cm
Adhesion time (EN 196-1)	60 min

CE Marking	EN 1504-3: R4
Anchoring to concrete (EN 1542)	> 2 MPa
Packaging	25 kg bag

RENOVA OXI

Single-component protective passivating product in powder form

Single-component ready to use protective product, free of solvents and nitrates, with corrosion inhibitors for the passivation and protection of reinforcement bars from rusting in concrete structures. The combination of raw materials of the utmost quality allows for the creation of a product that maximises the protection of metal reinforcements.

INTENDED USES

RENOVA OXI is particularly suitable for the restoration of structural elements in reinforced concrete that require the removal of material and the exposing of reinforcement bars or in cases in which works are carried out to restore elements that include reinforcement bars exposed due to the removal of coverage, whether they are oxidised or not. RENOVA OXI guarantees the protection of reinforcement bars, restoring passivity against corrosion and maintaining them over time.



Binder	Cementitious
Yield	18 - 20 m/kg
Setting time (EN 196-1)	> 90 min

CE Marking	UNI EN 1504-7:2007
Packaging	1 kg jar

RENOVA TIXO

Fibre-reinforced thixotropic mortar for concrete restoration

Thixotropic mortar made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The combination of raw materials of the utmost quality allows for the creation of a product with controlled shrinkage and with excellent mechanical properties and durability, resistant to frost and to de-icing salts. Thanks to its elevated elasticity, extremely low permeability to aggressive agents (oxygen, chlorides, carbon dioxide) and high adhesion to concrete, it allows for the creation of durable restoration works, prolonging the useful life of reinforced concrete (absence of corrosion).

INTENDED USES

RENOVA TIXO is used for the volumetric reconstruction and restoration of reinforced concrete structures in cases requiring the application of a thixotropic mortar with elevated mechanical characteristics and controlled shrinkage, specifically for the reconstruction of portions of reinforced concrete deteriorated by corrosion of metal reinforcement, for the reconstruction of coverage or for the structural reinforcing of load-bearing elements in concrete such as the enlarging of beams or pillars.



Binder	Cementitious	CE Marking	EN 1504-3: R4
Yield	19 kg/m²xcm	Adhesion to concrete (EN 1542)	> 3 N/mm²
Setting time (EN 196-1)	> 90 min	Packaging	25 kg bag

ANCHORING SYSTEMS

ARMIS BFLUID CONNECT

Natural hydraulic lime NHL 5 compound for fixing connectors

Specific inorganic compound for the anchoring of connectors in FRP or steel, made exclusively with natural hydraulic lime and selected dolomitic aggregates. Anti-shrinkage, with low soluble salt content, resistant to sulphates and compatible with brick, natural stone, soft stone and mixed masonry. ARMIS BFLUID CONNECT allows for the efficient anchoring of connectors to period masonry, and thanks to its mineral composition, does not react in the presence of sulphates, allowing to maximise the chemical and physical compatibility of consolidation systems in which it is used.

INTENDED USES

ARMIS BFLUID CONNECT is used for the anchoring of FRP or steel connectors onto elements in brick, natural stone, soft stone and mixed masonry, whether they are walls, vaults or floors. ARMIS BFLUID CONNECT is a compound particularly suited to the creation of single-sided or through connections in consolidation works consisting in the cladding of masonry, and forms part of our CRM, CRM RESTORATION, FRCM MULTI and FRCM RESTORATION systems. ARMIS BFLUID CONNECT is a product that is optimised to maximise compatibility with period masonry, guaranteeing excellent mechanical properties, and is particularly suitable for restoration works

*ETA Certification in combination with ARMIS VETROAR FIOCCO OH1/OH2 or ARMIS VETROAR ELLE and ARMIS VETROAR 50x50



Binder	100% Lime NHL 5	CE Marking	EN 998-2: M15
Chloride content	< 0.05%	Mass (of hardened product)	1700 - 1900 kg/m³
Yield	0.20 - 0.25 kg/hole	Packaging	20 kg bag

ARMIS CARBON JOINT

Unidirectional carbon-fibre cord for structural connections

High-resistance circular-section unidirectional carbon-fibre cord, consisting of unidirectional filaments contained within a tubular elastic gauze, forming a bundle of parallel and continuous strands. ARMIS CARBON JOINT allows for the creation of reduced-thickness structural connections through the unbraiding of the filaments.

INTENDED USES

ARMIS CARBON JOINT can be used for the structural reinforcement of elements in concrete and masonry carried out with the application of FRP systems to the element to be reinforced. The product can be used in combination with Tassullo FRP CARBON 300, FRP CARBON 600 and FRP CARBON QUAD systems in order to improve anchoring and connection to the support.



Length	10 m
Fibre density	1.78 g/cm ³
Elastic modulus	250 GPa
Tensile strength	4300 MPa
Elongation to failure	1.70%

Equivalent area Ø8	21.31 mm ²
Equivalent area Ø10	25.85 mm ²
Equivalent area Ø12	31.39 mm ²
Packaging	Coil

ARMIS VETROAR ELLE

Preformed L-shaped alkaline-resistant glass-fibre connector with improved adherence

Preformed L-shaped structural connector in alkaline-resistant fibreglass impregnated with epoxy resin with improved adherence surface. ARMIS VETROAR ELLE offers excellent mechanical characteristics and durability and is stable in alkaline environments.

INTENDED USES

ARMIS VETROAR ELLE can be used for the reinforcing of walls, vaults and floors in brick, natural stone, soft stone and mixed masonry, carried out through the application of cladding with CRM systems applied single- or double-sided on the element to be reinforced, and for the connection of the faces in "a sacco" masonry elements.



*ETA Certification in combination with ARMIS BFLUID CONNECT

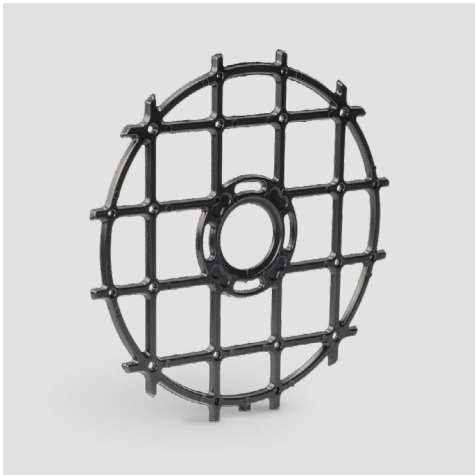
Length of the long segment	200 - 300 - 400 - 500 - 700 mm
Length of the short segment	100 mm
Nominal cross-section	34.27 mm ²

Characteristic tensile strength	608.53 MPa
Packaging	100 pieces box

ARMIS VETROAR ELLE TOP

Circular reinforcement section in polyamide, mesh 30×30 mm²
Circular component made of polyamide, with main grid spacing 30 mm, diameter 170 mm.

INTENDED USES
ARMIS VETROAR ELLE TOP is used in CRM reinforcement systems in combination with the preformed alkaline-resistant fibreglass connector ARMIS VETROAR ELLE. ARMIS VETROAR ELLE TOP is to be interposed between the head of the connector and the mesh and serves to locally strengthen the reinforced plaster in the zone subjected to force concentrations due to the presence of the connector.



Thickness	3 mm	Packaging	100 pieces box
Mesh size	30×30 mm²		

ANCHORING SYSTEMS

ARMIS VETROAR FIOCCO OH1

8-mm diameter alkaline-resistant glass-fibre connector with one end unbraidable
Structural alkaline-resistant fibreglass connector with a 200 mm-long unbraidable end and a rigid section of a diameter of 8 mm preformed with epoxy resin. ARMIS VETROAR FIOCCO OH1 offers excellent mechanical characteristics and durability and is stable in alkaline environments.
INTENDED USES
ARMIS VETROAR FIOCCO OH1 can be used for the reinforcing of walls, vaults and floors in brick, natural stone, soft stone and mixed masonry, carried out through the application of cladding with CRM and FRCM systems applied single-sided on the element to be reinforced.



*ETA Certification in combination with ARMIS BFLUID CONNECT			
Length of the preformed segment	200 - 300 - 400 - 500 - 600 mm	Characteristic tensile resistance	805.6 MPa
Length of the unbraidable end	200 mm	Packaging	100 pieces box
Nominal cross-section	52.26 mm²		

ARMIS VETROAR FIOCCO OH2

8-mm diameter alkaline-resistant glass-fibre connector with two ends unbraidable

Structural alkaline-resistant fibreglass connector with two 200 mm-long unbraidable ends and a rigid section of a diameter of 8 mm preformed with epoxy resin. ARMIS VETROAR FIOCCO OH2 offers excellent mechanical characteristics and durability and is stable in alkaline environments.

INTENDED USES

ARMIS VETROAR FIOCCO OH2 can be used for the reinforcing of walls, vaults and floors in brick, natural stone, soft stone and mixed masonry, carried out through the application of cladding with CRM and FRCM systems applied single-sided on the element to be reinforced and for the connection of the faces in "a sacco" masonry elements.



**ETA Certification in combination with ARMIS BFLUID CONNECT*

Length of the preformed segment	200 - 300 - 400 - 500 - 600 mm
Length of the unbraidable ends	200 mm
Nominal cross-section	52.26 mm²



Characteristic tensile resistance	805.6 MPa
Packaging	100 pieces box

FLANGIA

70-mm diameter metal washer

Washer in galvanised steel, 70 mm in diameter and 0.8-mm thick, with a countersunk internal hole of 9 mm in diameter. Galvanising makes the product highly durable. The through holes improve adhesion of the mortars used to cover the accessory.

INTENDED USES

FLANGIA is a product suitable for dry connections on elements in concrete and on masonry made with solid or cavity bricks. FLANGIA, when used in combination with VITE CLS, is suitable for the connections in the securing of non-structural walls and ceilings in the SAVE WALL and SAVE TOP SYSTEMS.



Nominal diameter	70 mm
Diameter of the hole	9 mm
Thickness	0.8 mm



Thickness (incl. countersink)	5.5 mm
Packaging	100 pieces box

RESINA VE

Styrene-free bicomponent vinyl-ester resin in cartridges

Bicomponent styrene-free vinyl-estere chemical anchoring agent in coaxial cartridges.

INTENDED USES

RESINA VE is suitable for the anchoring of structural connections on substrates in concrete, cracked concrete, and brick, natural stone, soft stone and mixed masonry. RESINA VE is suitable for the anchoring of connectors for the creation of consolidation systems on masonry elements and for the anchoring of cross connections in masonry with multiple faces. The product is suitable for the creation of connection systems on concrete for securing non-structural walls.



Density	1.77 g/cm³	Flexural strength	15 MPa
Compressive strength	100 MPa	Packaging	400 ml cartridge

ANCHORING SYSTEMS

VITE CLS

Self-threading screws for concrete and masonry diameter 7.5 mm, length 100 mm

Self-threading screws in galvanised hardened steel for concrete, solid-brick or cavity-brick masonry, diameter 7.5 mm, length 100 mm, with a countersunk head of 11.5 mm in diameter, suitable for dry anchoring. The product allows for the rapid execution of reliable connections without the need for anchoring agents such as resins or specific compounds.

INTENDED USES

VITE CLS is a product suitable for the creation of dry connections on elements in concrete and on masonry made with solid or cavity bricks. VITE CLS, when used in combination with FLANGIA, can be used for the connections to reinforced concrete frames of the SAVE WALL SYSTEM for securing non-structural walls.



Length of the screw	100 mm	Diameter of the hole	6 mm
Characteristic tensile resistance	22 kN	Packaging	100 pieces box
Nominal diameter	7.5 mm		

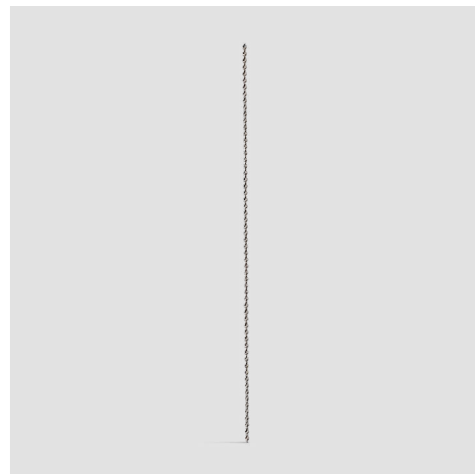
VORTEX

High mechanical performance helical AISI 304 stainless steel rod

Helical AISI 304 stainless-steel bar offering high mechanical performance. The helical thread allows the bar to be inserted into dry masonry via a pre-bored hole of a suitable diameter in accordance with the diameter of the bar and the characteristics of the masonry. The AISI 304 steel guarantees the durability of the product, even in aggressive environments.

INTENDED USES

VORTEX can be used for the reinforcing of structural elements in brick, natural stone, soft stone and mixed masonry, structural or non-structural walls, vaults and floors. VORTEX is suitable for the creation of seams for the restoration of or improvement in the continuity of masonry, for the repair of cracks through reinforced repointing, for the creation of through connections in multi-faced masonry sections, for the connecting of decorative facade elements to the structure below, and for the creation of connection systems as part of consolidation systems that require the cladding of masonry.



Length	1 o 10 m
Resistant section	φ8 mm - 10.4 mm ²
Resistant section	φ10 mm - 12.9 mm ²

Ultimate tensile strength	φ8 mm - 1153.84 MPa
Ultimate tensile strength	φ10 mm - 1240.03 MPa
Packaging	50 pieces box or roll

VORTEX BLOCK

Polypropylene and glass-fibre flange for fixing the ends of helical rods

Threaded 86-mm diameter flange in fibreglass-reinforced polypropylene with threaded plug for the fixing of the end of VORTEX helical bars of a diameter of 8 or 10 mm. ARMIS BLOCK is tightened onto the helical bar to guarantee fixing. The geometry of VORTEX BLOCK, which has been specifically designed in order to facilitate installation thanks to the removable wings and the special internal threading, allows for rapid and easy installation. The combination of materials used for construction lends VORTEX BLOCK excellent durability, even in aggressive environments.

INTENDED USES

VORTEX BLOCK can, in combination with the VORTEX helical bar, be used for through connections in load-bearing or partition masonry elements and for connections for high- or low-thickness cladding systems.



Length	30 mm
Nominal diameter	86 mm

Thickness	3.45 mm
Packaging	100 pieces box

REINFORCEMENT FABRICS

ARMIS CARBON 300

High-resistance unidirectional carbon-fibre fabric for FRP systems, mass 322 g/m²

High-resistance unidirectional carbon-fibre fabric, mass 322 g/m² with 24K filaments woven with heat-sealed fibreglass, for polymer-matrix composite systems impregnated on site. ARMIS CARBON 300 offers excellent mechanical characteristics and durability.

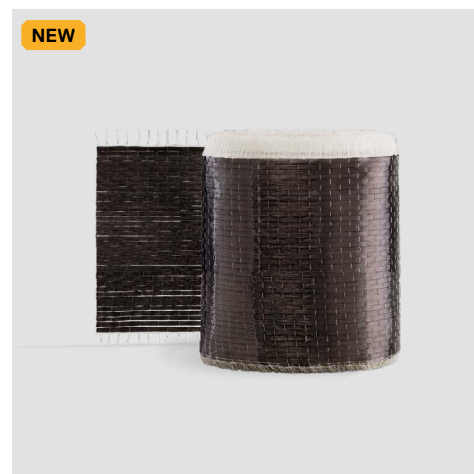
INTENDED USES

ARMIS CARBON 300 is used for the reinforcement of structural elements with polymer-matrix composite systems and, together with the CARBON EPOX epoxy matrix, forms part of the FRP CARBON 300 system. The system is used for the reinforcement of structural elements in masonry and in reinforced, ordinary and pre-compressed concrete, against static and/or seismic action. In the case of buildings in reinforced concrete, the fabric is particularly suitable for the reinforcing of monodimensional elements (beams and pillars), plates and pillar-beam nodes. The fabric is flexible, and its 24K weave optimises the impregnation of the epoxy resin used as a matrix.

*Certified ETA in combination with CARBON EPOX

Fabric mass per unit of area	322 g/m ²
Equivalent thickness	0.171 mm
Nominal fibre tensile strength, main direction	4300 MPa

Roll width	10 - 20 - 30 cm
Packaging	50 m roll



REINFORCEMENT FABRICS

ARMIS CARBON 600

High-resistance unidirectional carbon-fibre fabric for FRP systems, mass 606 g/m²

High-resistance unidirectional carbon-fibre fabric, mass 606 g/m² with 24K filaments woven with heat-sealed fibreglass, for polymer-matrix composite systems impregnated on site. ARMIS CARBON 600 offers excellent mechanical characteristics and durability.

INTENDED USES

ARMIS CARBON 600 is used for the reinforcement of structural elements with polymer-matrix composite systems and, together with the CARBON EPOX epoxy matrix, forms part of the FRP CARBON 600 system. The system is used for the reinforcement of structural elements in masonry and in reinforced, ordinary and pre-compressed concrete, against static and/or seismic action. In the case of buildings in reinforced concrete, the fabric is particularly suitable for the reinforcing of monodimensional elements (beams and pillars), plates and pillar-beam nodes. The fabric is flexible, and its 24K weave optimises the impregnation of the epoxy resin used as a matrix.

*Certified ETA in combination with CARBON EPOX

Fabric mass per unit of area	606 g/m ²
Equivalent thickness	0.329 mm
Nominal fibre tensile strength, main direction	> 4900 MPa

Roll width	10 - 20 - 30 cm
Packaging	50 m roll



ARMIS CARBON QUAD

High-resistance quadriaxial carbon-fibre fabric for FRP systems, mass 390 g/m²

High-resistance quadriaxial carbon-fibre fabric, mass 390 g/m² with mixed 24K/ 24K filaments woven with polyester fibre, for polymer-matrix composite systems impregnated on site. ARMIS CARBON QUAD offers excellent mechanical characteristics and durability.

INTENDED USES

ARMIS CARBON QUAD is used for the reinforcement of structural elements with polymer-matrix composite systems and, together with the CARBON EPOX epoxy matrix, forms part of the FRP CARBON QUAD system. The system is used for the reinforcement of structural elements in masonry and in reinforced, ordinary and pre-compressed concrete, against static and/or seismic action. In the case of buildings in reinforced concrete, the fabric is particularly suitable for the reinforcing of bidimensional elements such as plates and beam-pillar nodes, and in cases requiring reinforcement with elements that are resistant to tensile stress in multiple directions. The fabric is flexible, and its 24K weave optimises the impregnation of the epoxy resin used as a matrix.

** Certified ETA in combination with CARBON EPOX*

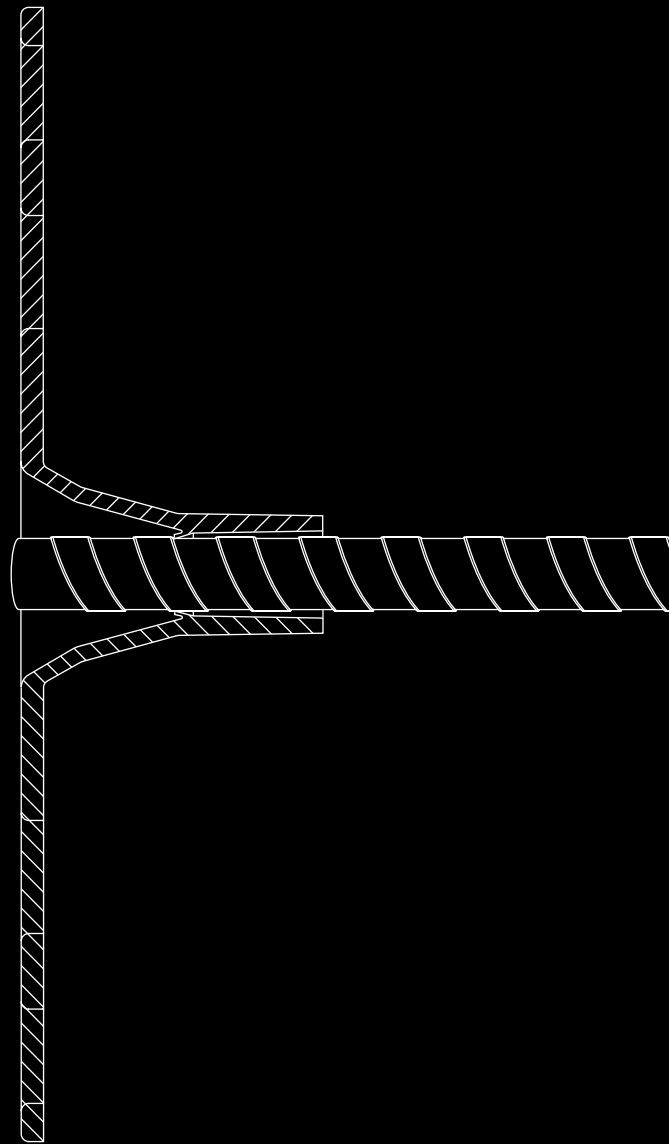
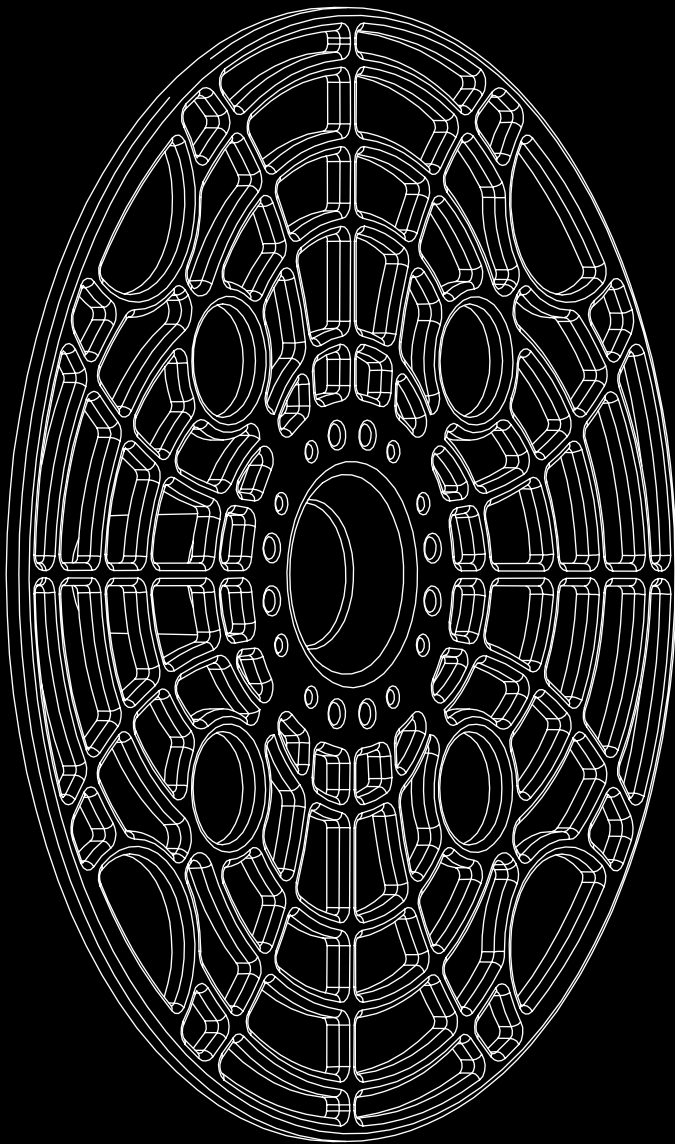
Fabric mass per unit of area	380 g/m ²
Equivalent thickness	0.0528 mm
Nominal fibre tensile strength, main direction	> 4900 MPa



Roll width	127 cm
Packaging	50 m roll

ARMIS

ALL-IN-ONE



- Patented universal connection system
- Applicable to all CRM and FRCM systems
- Suitable for masonry of all thicknesses
- Easy to apply, even for two-sided reinforcement



*ETA certificate and CE marking in combination
with ARMIS BFLUID CONNECT and RESINA VE

ARMIS STRONG BAR

AR fibreglass improved-anchorage bar, diameter 10 mm, length 1.2 m

Straight composite bar in alkaline-resistant fibreglass and epoxy resin with an improved anchorage surface. ARMIS STRONG BAR offers excellent mechanical properties, and its composition renders it particularly stable and durable, even in harsh environments. ARMIS STRONG BAR can be cut to length as needed, allowing for the creation of connections of a depth suitable for all the most common masonry thicknesses, optimising the efficiency of worksite and logistics operations.

INTENDED USES

ARMIS STRONG BAR is a component of the innovative ARMIS ALL-IN-ONE connection system, used for the structural consolidation of elements in brick, stone, soft or mixed stone masonry via CRM- and FRCM-type cladding systems. ARMIS STRONG BAR serves to transfer the forces absorbed by the connection system to the masonry support via the anchoring element.



Length	1.20 m	Tensile failure value	752 Mpa
Resistant section	77.25 mm²	Packaging	50 pieces box

ARMIS STRONG BLOCK

150-mm diameter polyamide and fibreglass anchoring flange for structural connections

150-mm diameter polyamide and fibreglass structural anchoring flange The special wings in the ARMIS STRONG BLOCK anchoring cone allow ARMIS STRONG BAR to also be pre-assembled dry, meaning that the components will be held in place until they are definitively bonded with resin. The iconic design of the external disk allows ARMIS STRONG BLOCK to be efficiently embedded into the mortars making up the structural cladding, and the special central conical shape maximises anchoring with ARMIS STRONG BAR. The nature of its composition means that ARMIS STRONG BLOCK is not affected by oxidation and is particularly stable and durable, even in aggressive environments.

INTENDED USES

ARMIS STRONG BLOCK is a component of the innovative ARMIS ALL-IN-ONE connection system, used for the structural consolidation of elements in brick, stone, soft or mixed stone masonry via CRM- and FRCM-type cladding systems. ARMIS STRONG BLOCK serves to transfer the forces from the connection system to the reinforcement, distributing them within the cladding.



Cone length	40 mm	Disk thickness	3 mm
Disk diameter	150 mm	Packaging	50 pieces box

RELATED PRODUCTS

ARMIS BFLUID CONNECT	pag. 116
INJECTION MACHINE	pag. 167
RESINA VE	pag. 119



Crea

- Natural hydraulic lime
NHL 5 finishes
- Mineral finishes

Specialising in mineral finishes, the TASSULLO CREA line includes a range of products, for interior and exterior use, that stand out for the purity of their raw materials and for their aesthetic results of the highest quality.

The different material effects and the vast availability of colours ensure solutions in new construction, prestigious building regeneration, historical-artistic restoration and sustainable building projects that are attentive to the well-being and healthiness of interior spaces.

CREA COLORS

COLLECTION



- 100% natural raw materials
- Chemical free
- Healthy, breathable finishes

- Customisable material effects
- Continuity of colour between spaces
- For indoor and outdoor use, for walls and floors

	CC 001	ready-to-use bag
	CC 002	bag + 600g jar
	CC 003	bag + 200g jar
	CC 004	bag + 600g jar
	CC 005	bag + 200g jar
	CC 006	bag + 600g jar
	CC 007	bag + 600g jar
	CC 008	bag + 300g jar

	CC 009	bag + 600g jar
	CC 010	bag + 200g jar
	CC 011	bag + 600g jar
	CC 012	bag + 200g jar
	CC 013	bag + 200 jar
	CC 014	bag + 600 jar
	CC 015	bag + 600 jar
	CC 016	bag + 600 jar

CALCE DILAVATO

Mineral finish with river aggregates and natural hydraulic lime NHL 5

Natural water-repellent mineral finish with a washed-out effect, made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry. CALCE DILAVATO is mixed with SABBIA DI FIUME of a grading curve of 3 mm to obtain the final visual effect. Available in the 16 colors of Crea Colors collection.

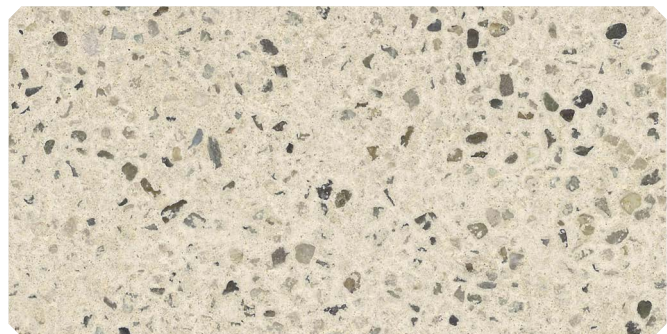
INTENDED USES

CALCE DILAVATO is suitable for application on any smooth and even mineral plaster, skim plaster or sub-base made with hydraulic binders, either internally or externally. It allows for the creation of finishes on vertical walls and/or ceilings. The presence of river silicate aggregates in the blend allows for a washed-out effect finish to be obtained, with the grains rising to the surface, particularly suited to period contexts where this effect is traditional.

AVAILABLE COLORS



TEXTURE



Binder	100% Lime NHL 5
Yield	3 kg/m ²
Mass (of hardened product)	1500 - 1600 kg/m ³
Water absorption due to capillary action (EN 1015-18)	Wc1

Water vapour permeability coefficient (EN 1015-19)	$\mu = 11$
Mixing ratio with SABBIA DI FIUME	5:1
Reaction to fire	A1
Packaging	25 kg bag



CALCE FINE

Fine mineral finish in natural hydraulic lime NHL 5

Water-repellent mineral finish made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability, resistance, and extremely low capacity for water absorption with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry. Available in the 16 colors of Crea Colors collection.

INTENDED USES

CALCE FINE is suitable for application on any smooth and even mineral plaster, skim plaster or sub-base made with hydraulic binders, either internally or externally. It allows for the creation of finishes on vertical walls and/or ceilings. Thanks to its extremely low capacity for water absorption, the product offers significant protection of the base plaster from the elements, rendering it ideal for the application of skirting or on walls particularly exposed to rain.

AVAILABLE COLORS



TEXTURE



Binder	100% Lime NHL 5
Yield	3 kg/m ²
CE Marking	EN 998-1: GP
Mass (of hardened product)	1500 - 1600 kg/m ³

Water absorption due to capillary action (EN 1015-18)	Wc2
Water vapour permeability coefficient (EN 1015-19)	μ =11
Reaction to fire	A1
Packaging	25 kg bag



CALCE MEDIA

Medium mineral finish in natural hydraulic lime NHL 5

Water-repellent mineral finish made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability, resistance, and extremely low capacity for water absorption with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry. Available in the 16 colors of Crea Colors collection.

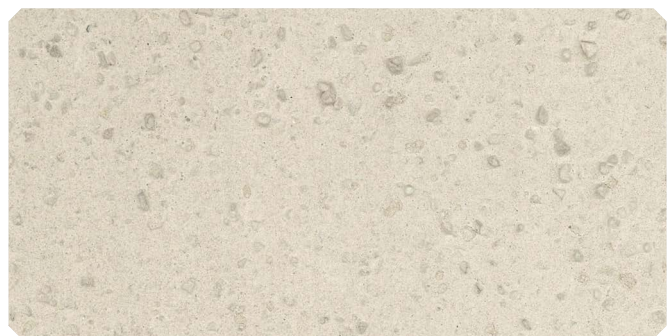
INTENDED USES

CALCE MEDIA is suitable for application on any smooth and even mineral plaster, skim plaster or sub-base made with hydraulic binders, either internally or externally. It allows for the creation of finishes on vertical walls and/or ceilings. Thanks to its extremely low capacity for water absorption, the product offers significant protection of the base plaster from the elements, rendering it ideal for the application of skirting or on walls particularly exposed to rain.

AVAILABLE COLORS



TEXTURE



Binder	100% Lime NHL 5
Yield	4 kg/m ²
CE Marking	EN 998-1: GP
Mass (of hardened product)	1550 - 1650 kg/m ³

Water absorption due to capillary action (EN 1015-18)	Wc2
Water vapour permeability coefficient (EN 1015-19)	$\mu \approx 10$
Reaction to fire	A1
Packaging	25 kg bag

NEW

100%
NATURAL
LIME

CALCE SETA

Extremely fine mineral finish in natural hydraulic lime NHL 5

Smooth mineral finish made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.4 mm. The combination of raw materials of the utmost quality allows for the creation of a walkable product that combines excellent durability and strength with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry. Available in the 16 colors of Crea Colors collection.

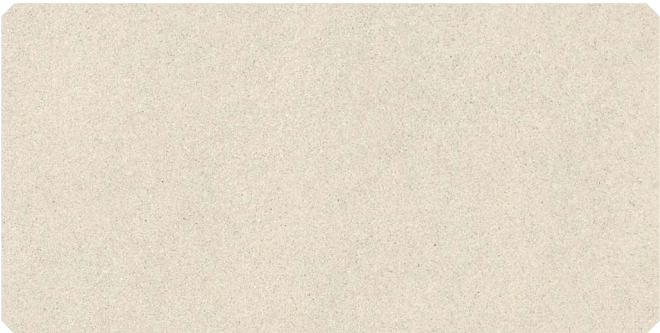
INTENDED USES

CALCE SETA is suitable for application on any mineral plaster, skim plaster or sub-base with hydraulic binders, and on traditional screed made with hydraulic lime, cement or crushed pottery, as long as these surfaces are homogeneous and even and located indoors. The product allows for the creation of smooth finishes of high aesthetic quality on vertical walls, ceilings and/or floors for foot traffic.

AVAILABLE COLORS



TEXTURE



Binder	100% Lime NHL 5	Water absorption due to capillary action (EN 1015-18)	< 0.4 kg/(m²×min ^{0.5})
Yield	2 - 5 kg/m²	Packaging	20 kg bag



CERA FORTE

Opaque protective treatment for mineral finishes

Water-based highly resistant protective and opaque finishing treatment made with selected polymers. The treatment of mineral surfaces with CERA FORTE creates a pleasant traditional satin effect and considerable resistance to wear from the elements and foot traffic when used on floors.

INTENDED USES

CERA FORTE can be applied to mineral finishes on floors or walls made from natural hydraulic lime or with hydraulic binders of medium absorbency and applied indoors, and on natural stone or products such as terracotta or natural stone of any nature, as long as it is absorbent.



Solvent	Water
Appearance	Whitish liquid
Specific weight	1 kg/l

Yield	10 - 14 m ² /l
pH	7 - 8
Packaging	5 l canister

NATURAL HYDRAULIC LIME FINISHES

COCCIO VIVO

Mineral finish with crushed pottery and natural hydraulic lime NHL 5

Mineral crushed pottery finish, made with the purest natural hydraulic lime, mineral dolomitic aggregates, and crushed pottery with a constant grading curve of between 0 and 3 mm. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry. COCCIO VIVO is suitable for architectural solutions that require a particular combination of design with the clear colour of the matrix in natural hydraulic lime and the visible presence of crushed pottery aggregates.

INTENDED USES

COCCIO VIVO is suitable for application to any mineral plaster, skim plaster or sub-base with hydraulic binders, if it is smooth and even and located indoors. The product allows for the creation of finishes on vertical walls and/or ceilings, with visual effects due to the clear colour of the matrix in natural hydraulic lime and the visible presence of crushed pottery aggregates. COCCIO VIVO has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



Binder	100% Lime NHL 5
Yield	4 - 6 kg/m ²
Mass (of hardened product)	Circa 1450 kg/m ³
Water absorption due to capillary action (EN 1015-18)	Wc0

Water vapour permeability coefficient (EN 1015-19)	$\mu = 12$
Mixing ratio with COCCIO GRANULATO	5:3
Reaction to fire	A1
Packaging	25 kg bag

TERMOARENINO

Extremely fine thermal mineral finish in natural hydraulic lime NHL 5

Thermal mineral finish made with the purest natural hydraulic lime and selected lightweight aggregates with a constant grading curve of between 0 and 0.4 mm. The combination of raw materials of the utmost quality and the technology applied in formulation allows for a product that has a significant effect on the comfort of internal spaces, affecting the temperature, humidity, and pollutant content of the environment. The application of TERMOARENINO allows for warmer indoor surfaces that are pleasant to touch and that contribute to raising operative temperature, i.e., the perceived temperature in a space.

INTENDED USES

TERMOARENINO is suitable for application on any smooth and even mineral plaster, skim plaster or sub-base made with hydraulic binders, internally. It allows for the creation of finishes on vertical walls and/or ceilings. Thanks to its low conductivity, the product is particularly suitable for the resolution of heat bridges or for the overall treatment of poorly insulated walls that suffer from internal condensation or mould, or that lead to unpleasant perceived temperature. TERMOARENINO has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	2 - 4 kg/m ²
Mass (of hardened product)	Approx. 710 kg/m ³

Water absorption due to capillary action (EN 1015-18) < 0.4 kg/(m²×min^{0.5})

Water vapour permeability coefficient (EN 1015-19) μ = 14

Packaging 15 kg bag

NATURAL HYDRAULIC LIME FINISHES

TOTAL CARE

Stain-resistant impregnating treatment for mineral finishes

Water-based water-repellent and oil-repellent stain-resistant impregnating treatment made with selected polymers. The treatment of mineral supports with TOTAL CARE reduces degradation due to frost and salts, without altering colour or breathability.

DESTINAZIONE D'USO

TOTAL CARE can be applied to mineral finishes on floors or walls made from natural hydraulic lime or with hydraulic binders of medium absorbency and applied indoors, and on natural stone or products such as terracotta or natural stone of any nature, as long as it is absorbent.



Solvent	Water
Appearance	Transparent liquid
Specific weight	1 kg/l

Yield 5 - 10 m²/l

Packaging 5 l canister

ARENINO

White lime-based mineral finish

Natural water-repellent mineral finish, made with hydraulic binders, slaked lime, and mineral dolomitic aggregates with a constant grading curve. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability, resistance, and surface finishing. The specific blend of binders combined with selected dolomitic aggregates, lends the finish a light traffic white effect. ARENINO is available in three different grain sizes: from 0 to 1 mm, to 2 mm, to 4 mm.

INTENDED USES

ARENINO is suitable for application on any smooth and even mineral plaster, skim plaster or sub-base made with hydraulic binders, either internally or externally. It allows for the creation of finishes on vertical walls and/or ceilings. The product is suitable for application on concrete and thermal insulation panels if appropriately prepared with a skim plaster.



Binder	Cementitious
Yield	3 - 4 kg/m ²
CE Marking	EN 998-1: GP
Water absorption due to capillary action (EN 1015-18)	Wc2

Water vapour permeability coefficient (EN 1015-19)	$\mu \approx 10$
Reaction to fire	A1
Packaging	25 kg bag

CREA AD ARTE

Custom-made mineral finish with lime

CALCE AD ARTE is a finish made to order, specifically studied, and formulated to satisfy functional, aesthetic, and chromatic needs of period masonry subject to conservative restoration and repair. The formula is prepared in accordance with the precise indication of the aesthetic and functional characteristics supplied by the client or works supervisor or determined based on an objective characterisation of specific samples..

INTENDED USES

CREA AD ARTE is suitable for application on any smooth and even mineral plaster, skim plaster or sub-base made with hydraulic binders, either internally or externally. It allows for the creation of finishes on vertical walls and/or ceilings. CALCE AD ARTE is a product that has been optimised to maximise compatibility with period masonry, and it is particularly suitable for restoration works.



Binder	Project-based
Yield	3 - 4 kg/m ²

Packaging	25 kg bag
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Floor

- Glues/adhesives
- Self levellers
- Screeds
- Special products

The TASSULLO FLOOR line includes a complete set of products for the creation of flooring stratigraphies: from lightweight sub-base screed to tile adhesive, with a wide range of traditional screeds and self-levelling smoothing compounds.

The products, with only natural hydraulic lime and formulated in the traditional way in compliance with the classifications provided for by the reference standards, are specifically developed for new construction projects, prestigious building regeneration, historical and artistic restoration and sustainable construction that is attentive to the wellbeing and healthiness of indoor spaces.

T FIX

Class C1T cement adhesive for interiors

Normal grip adhesive with vertical slip resistance made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. T FIX complies with UNI EN 12004 and is classified as C1T – “Normal cementitious adhesive (C1) with slip-resistance (T)”. T FIX is available in grey or white.

INTENDED USES

T FIX is an adhesive suitable for the application of terracotta or ceramic tiles and natural stone to walls or floors exclusively in internal spaces on cement-based plasters, natural or artificial hydraulic lime, chalk-based plasters (with prior application of a suitable insulating primer), cement- or hydraulic-lime-based screeds or concrete. The product is suitable for the application of all formats of tiles on horizontal surfaces, and up to a maximum size of 30×30 cm on vertical surfaces.



Binder	Cementitious
Yield	3 - 4 kg/m ²
Open time (EN 1346)	> 20 min
CE Marking	EN 12004-1: C1T

Walkability	24-48h
Ready for use	14 days
Packaging	25 kg bag

T FIX ECO

Interior adhesives in natural hydraulic lime NHL 5

Normal grip adhesive with vertical slip resistance made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. The product is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia with the surface. The low emission of volatile organic substances by the product has a positive influence on the comfort of internal spaces.

INTENDED USES

T FIX ECO is an adhesive suitable for the application of terracotta, ceramic tiles and natural stone to walls or floors, exclusively in internal spaces, on cement-based plasters, natural or artificial hydraulic lime, chalk-based plasters (with prior application of a suitable insulating primer), hydraulic-binder-based screed or concrete. The product is suitable for the application of all formats of tiles on horizontal surfaces, and up to a maximum size of 30×30 cm on vertical surfaces. T FIX ECO has been optimised to maximise compatibility with original materials and is particularly suited to restoration works.



100%
NATURAL
LIME



Binder	100% Lime NHL 5
Yield	3 - 4 kg/m ²
Open time (EN 1346)	> 30 min
Initial adhesion (after 28 days) (EN 1348)	> 0.5 N/mm ²

Slip (EN 1308)	< 0.5 mm
Walkability	24-48h
Ready for use	28 days
Packaging	25 kg bag

T FIX HP

Highly workable class C2TE cement adhesive

Elevated grip adhesive with zero vertical slip, prolonged workability and elevated elasticity made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. T FIX HP complies with UNI EN 12004 and is classified as C2TE – “Cementitious adhesive (C) with improved characteristics (2), slip-resistance (T) and extended open time (E)”. T FIX HP is available in grey or white.

INTENDED USES

T FIX HP is an adhesive suitable for the application of terracotta, ceramic, clinker and porcelain stoneware tiles, as well as brick material, on walls or floors both in internal and outdoors areas on cement-based plasters, natural or artificial hydraulic lime, chalk-based plasters (with prior application of a suitable insulating primer), cement- or hydraulic-lime-based screeds or concrete.



Binder	Cementitious
Yield	3 - 4 kg/m ²
Open time (EN 1346)	> 30 min
CE Marking	EN 12004-1: C2TE

Walkability	24-48h
Ready for use	14 days
Packaging	25 kg bag

COLLE/ADESIVI

T FIX HP FLEX

Highly workable and deformable class C2TE S1 cement adhesive

Elevated grip deformable adhesive with zero vertical slip, prolonged workability and elevated elasticity made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. T FIX HP FLEX complies with UNI EN 12004 and is classified as C2TE S1 – “Cementitious adhesive (C) with improved characteristics (2), slip-resistance (T), extended open time (E) and deformable (S1)”. T FIX HP FLEX is available in grey or white.

INTENDED USES

T FIX HP FLEX is an adhesive suitable for the application of terracotta, ceramic, clinker and porcelain stoneware tiles, as well as brick material and mosaics, on walls or floors both in internal and outdoors areas on cement-based plasters, natural or artificial hydraulic lime, chalk-based plasters (with prior application of a suitable insulating primer), cement- or hydraulic-lime-based screeds or concrete, on existing floors previously treated with a specific preparation and on insulation slabs of an opportune density. Thanks to its elevated elasticity, T FIX HP FLEX is particularly recommended for the application of large-format cladding elements and for use in damp environments.



Binder	Cementitious
Yield	3 - 4 kg/m ²
Open time (EN 1346)	> 30 min
CE Marking	EN 12004-1: C2TE-S1

Walkability	24-48h
Ready for use	14 days
Packaging	25 kg bag

SELF LEVELLERS

T LEVEL ECO

Self-levelling smoothing in natural hydraulic lime NHL 5 for thicknesses of between 1 and 10 mm

Rapid hardening self-levelling smoothing made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. The rapid development of resistance allows the surface to be ready for use quickly, and once cured, the product offers elevated mechanical resistance in terms of compression, abrasion and adhesion to the surface.

INTENDED USES

T LEVEL ECO allows for the elimination of unevenness or differences in height of less than 10 mm from traditional or rapid-drying screed made with hydraulic binders, to a maximum thickness of 10 mm, to prepare surfaces for the application of successive layers of coatings, or it can be left exposed as a finishing layer. Do not use as a floating screed as the product must always efficiently adhere to the existing sub-base. T LEVEL ECO has been optimised to maximise compatibility with original materials, guaranteeing excellent mechanical properties, and is particularly suited to restoration works.



Binder	Lime NHL 5 based
Workability time (UNI EN 1015-19)	15 min
Yield	1.9 kg/m ² ×mm
Mass (of hardened product)	1800 - 1900 kg/m ³

Resistant to compression after 28 days (EN 13892-2)	> 15 N/mm ²
Thermal conductivity (λ10,dry) (EN ISO 10456)	1.35 (tabulated value) W/m×K
Ready for use	42 days
Packaging	25 kg bag

SELF LEVELLERS

T LEVEL LOW

Self-levelling smoothing for thicknesses of between 1 and 10 mm

Rapid hardening self-levelling smoothing made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm. The rapid development of resistance allows the surface to be ready for use quickly, and once cured, the product offers elevated mechanical resistance in terms of compression, abrasion, and adhesion to the surface.

INTENDED USES

T LEVEL LOW allows for the elimination of unevenness or differences with height of less than 10 mm from traditional or rapid-drying screed made with hydraulic binders. Do not use as a floating screed as the product must always efficiently adhere to the existing sub-base. .



Binder	Cementitious
Workability time (UNI EN 1015-19)	30 - 40 min
Yield	1.9 kg/m ² ×mm
CE Marking	EN 13813: CT-C30-F4

Mass (of hardened product)	1900 - 2000 kg/m ³
Thermal conductivity (λ10,dry) (EN ISO 10456)	1.35 (tabulated value) W/m×K
Ready for use	21 days
Packaging	25 kg bag

T LEVEL MAX

Self-levelling smoothing for thicknesses of between 3 and 30 mm

Rapid hardening self-levelling smoothing made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The rapid development of resistance allows the surface to be ready for use quickly, and once cured, the product offers elevated mechanical resistance in terms of compression, abrasion and adhesion to the surface.

INTENDED USES

T LEVEL MAX allows for the elimination of unevenness or differences in height of less than 30 mm from traditional or rapid-drying screed made with hydraulic binders between 3 mm and 30 mm thick, to prepare surfaces for the application of successive layers of coatings. Do not use as a floating screed as the product must always efficiently adhere to the existing sub-base.



Binder	Cementitious
Workability time (UNI EN 1015-19)	30 - 40 min
Yield	1.9 kg/m ² ×mm
CE Marking	EN 13813: CT-C30-F4

Mass (of hardened product)	1900 - 2000 kg/m ³
Thermal conductivity (λ10,dry) (EN ISO 10456)	1.35 (tabulated value) W/m×K
Ready for use	21 days
Packaging	25 kg bag

SCREEDS

PAVI COCCIO

Traditional screed with crushed pottery and natural hydraulic lime NHL 5

Crushed pottery screed, made with the purest natural hydraulic lime, mineral dolomitic aggregates and crushed pottery with a grading curve of between 0 and 3 mm. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with the structure of period and modern floors. PAVI COCCIO is suitable for architectural solutions that require the works to have a particular colour and/or the visible presence of crushed pottery aggregates.

INTENDED USES

PAVI COCCIO is suitable for the indoor creation of crushed-pottery screeds of a thickness of between 4 and 12 cm applied directly to the extrados of floors or of floating screeds over layers of thermal insulation or lightweight filling screed. The screed can be left exposed following suitable protective surface treatment, e.g., CERA FORTE from the TASSULLO CREA line. PAVI COCCIO has been optimised to maximise compatibility with period structures and is particularly suited to restoration works.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	15 - 16 kg/m ² ×cm
Mass (of hardened product)	1500 - 1600 kg/m ³
Resistant to compression after 28 days (EN 13892-2)	10 N/mm ²

Thermal conductivity (λ10,dry) (EN 12524)	1.15 (tabulated value) W/m×K
Mixing ratio with COCCIO GRANULATO	5:3
Reaction to fire	A1
Ready for use	42 days
Packaging	25 kg bag

PAVI ECO

Ready mix screed in natural hydraulic lime NHL 5

Ready-to-use screed coat made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The physical and chemical characteristics of lime contribute significantly to regulating the humidity of the floor and interiors, and the low emission of volatile organic substances by the product has a positive influence on the comfort of internal spaces. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with the structure of period and modern floors.

INTENDED USES

PAVI ECO is suitable for the indoor creation of screeds of a thickness of between 4 and 12 cm applied directly to the extrados of floors or of floating screeds over layers of thermal insulation or lightweight filling screed. PAVI ECO is compatible with the application of under-floor heating systems, its surface can be drilled to allow underfloor heating to be installed directly into the screed, without the use of insulation panels. PAVI ECO has been optimised to maximise compatibility with period structures and is particularly suited to restoration works.



100%
NATURAL
LIME



Binder	100% Lime NHL 5
Yield	20 kg/m ² ×cm
Mass (of hardened product)	1900 - 2000 kg/m ³
Resistant to compression after 28 days (EN 13892-2)	20 N/mm ²

Thermal conductivity (λ10,dry) (EN 12524)	1.35 (tabulated value) W/m×K
Reaction to fire	A1
Ready for use	42 days
Packaging	25 kg bag

SCREEDS

PAVI ECO LIGHT

Lightweight thermal insulating screed in natural hydraulic lime NHL 5

Lightweight screed made exclusively with the purest natural hydraulic lime, expanded perlite aggregates and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The combination of raw materials of the utmost quality has allowed for the creation of a product that combines excellent workability, resistance, yield and insulation with the natural characteristics of breathability and healthiness of natural hydraulic lime, thus rendering it suitable for the creation of healthy and heat-insulated sub-bases without adding excessive weight to the structure.

INTENDED USES

PAVI ECO LIGHT is suitable for the internal creation of lightweight and insulating sub-floor screeds of a thickness of at least 3 cm, applied before a floating screed or beneath heating panels, and applied directly to the extrados of floors. PAVI ECO LIGHT has been optimised to maximise compatibility with period structures and is particularly suited to restoration works.



100%
NATURAL
LIME



Binder	100% Lime NHL 5
Yield	5 kg/m ² ×cm
Mass (of hardened product)	400 - 500 kg/m ³
Resistant to compression after 28 days (EN 13892-2)	1.2 N/mm ²

Thermal conductivity (λ10,dry) (EN 12524)	0.12 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	13 kg bag

PAVI LIGHT

Lightweight thermal insulating screed

Lightweight screed made with hydraulic binders, mineral dolomitic aggregates and polystyrene with a constant grading curve of between 0 and 3 mm. The combination of selected raw materials has allowed for the creation of a product that combines excellent workability, resistance, yield and insulation, thus rendering it suitable for the creation of heat-insulated sub-bases without adding excessive weight to the structure.

INTENDED USES

PAVI LIGHT is suitable for the internal creation of lightweight and insulating sub-floor screeds of a thickness of at least 3 cm, applied before a floating screed or beneath heating panels, and applied directly to the extrados of floors. PAVI LIGHT allows for the simple covering of pipes for electrical and plumbing systems laid on floors to create a level surface for the application of a successive screed for the laying of flooring.



Binder	Cementitious
Yield	5 kg/m²×cm
Mass (of hardened product)	350 - 450 kg/m³

Resistant to compression after 28 days (EN 13892-2)	1.5 N/mm²
Thermal conductivity (λ10,dry) (EN 12524)	0.12 (tabulated value) W/m×K
Packaging	10 kg bag

PAVI PRONTO

Traditional screed for standard use

Ready-to-use screed made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent workability and resistance. PAVI PRONTO complies with regulation UNI EN 13813 concerning “screeds and screed materials - properties and requirements”, classified as class CT-C20-F4.

INTENDED USES

PAVI PRONTO is suitable for the indoor creation of screeds of a thickness of between 4 and 12 cm applied directly to the extrados of floors or of floating screeds over layers of thermal insulation or lightweight filling screed. PAVI PRONTO is compatible with the application of underfloor heating systems and can be applied with the laying of electro-welded or fibreglass reinforcement mesh.



Binder	Cementitious
Yield	20 kg/m²×cm
CE Marking	EN 13813: CT-C20-F4
Mass (of hardened product)	1800 - 2000 kg/m³

Thermal conductivity (λ10,dry) (EN 12524)	1.35 (tabulated value) W/m×K
Reaction to fire	A1
Ready for use	21 days
Packaging	25 kg bag

PAVI RAPID

Rapid-drying screed for standard use

Rapid-drying screed made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The technology used in formulating the product allows for the creation of a product that offers excellent workability, adhesion, resistance and rapid drying, optimising work-site times. PAVI RAPID complies with regulation UNI EN 13813 concerning "screeds and screed materials - properties and requirements", classified as class CT-C25-F4.

INTENDED USES

PAVI RAPID is suitable for the indoor creation of screeds of a thickness of between 4 and 12 cm applied directly to the extrados of floors or of floating screeds over layers of thermal insulation or lightweight filling screed. PAVI RAPID is compatible with the application of underfloor heating systems and can be applied with the laying of electro-welded or fibreglass reinforcement mesh.



Binder	Cementitious
Yield	20 kg/m ² ×cm
CE Marking	EN 13813: CT-C25-F4
Mass (of hardened product)	1800 - 2000 kg/m ³

Thermal conductivity (λ10,dry) (EN 12524)	1.35 (tabulated value) W/m×K
Reaction to fire	A1
Ready for use	21 days
Packaging	25 kg bag

SCREEDS

PAVI RAPID LOW

Rapid-drying screed for thin layers

Rapid-drying screed made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The technology used in formulating the product allows for the creation of a product that offers excellent workability, adhesion and resistance, rendering it also suitable for application in thin layers, as well as rapid drying, optimising work-site times. PAVI RAPID LOW complies with regulation UNI EN 13813 concerning "screeds and screed materials - properties and requirements", classified as class CT-C25-F4.

INTENDED USES

PAVI RAPID LOW is suitable for the internal creation of screeds of a thickness of between 2 and 4 cm, anchored to the extrados of floors or to existing non-floating screeds where it is necessary to apply thin layers of screed to respect the height of the finished floor. PAVI RAPID LOW is particularly suited to restructuring works.



Binder	Cementitious
Yield	20 kg/m ² ×cm
CE Marking	EN 13813: CT-C20-F3
Mass (of hardened product)	1800 - 2000 kg/m ³

Thermal conductivity (λ10,dry) (EN 12524)	1.35 (tabulated value) W/m×K
Reaction to fire	A1
Ready for use	21 days
Packaging	25 kg bag

PAVI TEKNO

Traditional screed with improved surface finishing

Ready-to-use screed made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm, purposely studied for the creation of a smooth surface to be obtained that optimises costs and time required for the successive application of coverings, and that improves the flow of the material in pipes for pumping to floors. PAVI TEKNO complies with regulation UNI EN 13813 concerning "screeds and screed materials - properties and requirements", classified as class CT-C20-F4.

INTENDED USES

PAVI TEKNO is suitable for the indoor creation of screeds of a thickness of between 4 and 12 cm applied directly to the extrados of floors or of floating screeds over layers of thermal insulation or lightweight filling screed. The product has been optimised for the mechanical pumping of mixed material to floors. PAVI TEKNO is compatible with the application of underfloor heating systems and can be applied with the laying of electro-welded or fibreglass reinforcement mesh.



Binder	Cementitious
Yield	20 kg/m ² ×cm
CE Marking	EN 13813: CT-C20-F4
Mass (of hardened product)	1800 - 2000 kg/m ³

Thermal conductivity (λ10,dry) (EN 12524)	1.35 (tabulated value) W/m×K
Reaction to fire	A1
Ready for use	21 days
Packaging	25 kg bag

SPECIAL PRODUCTS

T FLASH COR

Rapid mortar for crowning and road repairs

Rapid fibre-reinforced ready-to-use mortar made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. T FLASH COR is characterised by rapid adhesion and hardening times, develops elevated mechanical resistance even after brief curing periods, and offers excellent workability and plasticity, it's durable against repeated cycles of frost and thawing, and in the presence of de-icing salts, oils and hydrocarbons. Its dark colour allows it to integrate perfectly with the road surface.

INTENDED USES

T FLASH COR is particularly recommended for the fixing and levelling of road tops (manhole tops and drains), the fixing of urban furnishings (road signs, curb stones, etc.), and for the filling or reconstruction of damaged or missing sections of road surface. The rapid development of mechanical resistance makes T FLASH COR suitable for all situations that require minimal interruption to traffic flow.



Binder	Cementitious
Yield	0.5 l/kg
Setting time (EN 196-1)	< 30 min

CE Marking	EN 1504-3: R4
Packaging	25 kg bag

Roma

- Consolidating treatments
- Detergents
- Protective treatments
- Prestigious restoration
- Stone restoration

The TASSULLO ROMA line is entirely dedicated to restoration, with reference to plasters, mortars and artefacts of historical and artistic interest.

The proposal includes special mortars and products for cleaning, consolidation, protection and reconstruction of stone elements, artefacts and bricks. Certified natural hydraulic lime, used as a binder, makes it possible to create materials that guarantee maximum compatibility with traditional techniques and materials. The solutions offered are long-lasting, consistent and reversible, in full respect of the unique characteristics of the element being treated.

CONSOLIDA

Consolidating treatment with ethyl silicate

Concentrated consolidating treatment made with ethyl silicate in inert solvent compound for natural silicate-matrix sandstone, conglomerates made with hydraulic binders and porous brick. The blend of solvents allows the product to penetrate deep into the capillary network of the deteriorated surface, reaching the solid core of the stone, re-aggregating and reconsolidating the deteriorated material without saline sub-products and without the formation of surface films that obstruct the passage of water vapour.

INTENDED USES

CONSOLIDA is to be used in all cases requiring the consolidation of porous, deteriorated or decohesive materials through the recreation of the cohesion of the material itself, specifically for natural silicate-matrix sandstone, conglomerates made with hydraulic binders, and porous bricks. The product has a limited consolidating effect on limestone-matrix materials. The product does not substantially modify the breathability, aspect or colour of treated surfaces, and offers elevated resistance to UV radiation.



Solvent	Alcohol
Appearance	Transparent liquid
Specific weight	0.88 kg/l

Yield	3 - 6 m ² /l
Packaging	5 l canister

CONSOLIDATING TREATMENTS

CONSOLIDA PLUS

Protective consolidating treatment with ethyl silicate and siloxanes

Concentrated consolidating treatment made with ethyl silicate and siloxane oligomers and additives (DC-OIT and IPBC) in inert solvent compound for natural stone in general and with a limestone matrix, conglomerates made with hydraulic binders and porous brick. The blend of solvents allows the product to penetrate deep into the capillary network of the deteriorated surface, reaching the solid core of the stone, re-aggregating and reconsolidating the deteriorated material. The siloxane component and the additives provide a significant water-repellent action and prevent the formation of organic patinas.

INTENDED USES

CONSOLIDA PLUS is to be used in all cases requiring the consolidation and protection of porous, deteriorated or decohesive material in a single application, through the recreation of the cohesive nature of said material. It is specifically for natural stone in general and with a limestone matrix, such as carparo, travertine, marbles, etc., conglomerates made with hydraulic binders, and porous brick. The product does not substantially modify the breathability, aspect or colour of treated surfaces, and offers elevated resistance to UV radiation.



Solvent	Alcohol
Appearance	Liquid transparent
Specific weight	0.88 kg/l

Yield	5 - 10 m ² /l
Water absorption reduction	75%
Packaging	5 l canister

NOVAPIETRA A

Acidic cleaner for silicate stone

Concentrated acidic pH cleaner made with special biodegradable emulsifying agents and surfactants capable of attacking and dissolving the components of organic and weather-related dirt (smog, hard-water streaks, excrement, etc.). Its balanced formula allows for intervention without altering the colour of surfaces, in full respect for the surface to be cleaned.

INTENDED USES

NOVAPIETRA A can be used on granite, porphyry, basalt, clay brick, hard stone, Serena stone and mineral finishes, and in general on all mineral materials that, due to their chemical composition, are not sensitive to the acidic nature of the cleaner. Its formula renders it suitable for the removal of light layers of rust from metal surfaces. Do not apply the product to surfaces in limestone-matrix stone such as marble, travertine and Lecce stone, lime paint or surfaces that are delicate, polished or lead polished.



Solvent	Water	Yield	8 - 20 m ² /l
Appearance	Opalescent liquid	pH	4.5 ± 0.5
Specific weight	1.07 kg/l	Packaging	5 l canister

NOVAPIETRA B

Alkaline cleaner for limestone

Concentrated alkaline pH cleaner made with special biodegradable emulsifying agents and surfactants capable of attacking and dissolving the components of organic and weather-related dirt (smog, soot, excrement, etc.). Its balanced formula allows for intervention without altering the colour of surfaces, in full respect for the surface to be cleaned.

INTENDED USES

NOVAPIETRA B can be used on marble, travertine, limestone, carparo and non-delicate stones, and in general on all mineral materials that, due to their chemical composition, are not sensitive to the alkaline nature of the cleaner. Its formula renders it suitable for the removal of soot, even layered soot, from surfaces. Do not apply the product to surfaces in delicate stone with a silica matrix, such as Serena stone or peperino, delicate, polished or lead-polished surfaces, or metal surfaces.



Solvent	Water	Yield	6 - 15 m ² /l
Appearance	Opalescent liquid	pH	13 ± 0.5
Specific weight	1.25 kg/l	Packaging	5 l canister

NOVAPIETRA BIO

Neutral detergent for the removal of organic patinas

Concentrated neutral pH cleaner and sanitiser with quaternary ammonium salts to eliminate layers of micro-organisms responsible for deterioration (mosses, lichens, yeasts, moulds, etc.). Its selective action acts exclusively on invasive substances without altering the colour of surfaces, in full respect for the surface to be cleaned. Its delicate and balanced formula allows it also to be used in interventions with long contact times.

INTENDED USES

NOVAPIETRA BIO can be used on natural stones and items of all type and nature, even if polished or lead polished, plasters, skim plasters or aged paint. The product will not affect the original patina of time of surfaces and does not alter their aspect, rendering it particularly suited to cleaning operations in conservative restoration works for stones and both artistic and monumental items, and for the preparation of sub-bases before the application of a skim plaster or finish.



Solvent	Water	Yield	4 - 8 m ² /l
Appearance	Liquid transparent	pH	7.5 ± 0.5
Specific weight	1 kg/l	Packaging	10 l canister

DETERGENTS

NOVAPIETRA N

Neutral detergent for delicate surfaces

Concentrated neutral pH cleaner made with ammonium bicarbonate, EDTA and quaternary ammonium salts, and special biodegradable emulsifying agents and surfactants studied based on the AB57 formulary of the Central Restoration Institute, capable of attacking and dissolving the components of organic and weather-related dirt (smog, soot, excrement, etc.). Its delicate and balanced formula allows for intervention even with long contact times, without altering the colour of surfaces, in full respect for the surface to be cleaned.

INTENDED USES

NOVAPIETRA N can be used on brick, granite, marble, travertine, Serena stone and delicate stone in general, even if polished, and on mineral finishes in general. The product does not attack the original patina of time of the surface and does not alter its aspect, rendering it particularly suited to cleaning operations in conservative restoration works for stones and both artistic and monumental items.



Solvent	Water	Yield	3 - 6 m ² /l
Appearance	Opalescent liquid	pH	8.3 ± 0.5
Specific Weight	1.06 kg/l	Packaging	5 l canister

LITHOS

Water-based breathable protective treatment

Breathable, low-viscosity, highly penetrating and particularly water-repellent protective treatment with siloxane oligomers in water solution. The nanometric diameter of its particles allow the product to penetrate porous materials to a depth that cannot be reached with generic water-based siloxane protective treatments. The product does not modify the breathable nature of the surface, guarantees elevated resistance to UV radiation.

INTENDED USES

LITHOS can be used on natural stone surfaces and products of all types and natures, unpolished or not lead polished, plaster, concrete, skim plasters or absorbent mineral finishes. The product does not alter the colour of surfaces, rendering it particularly suitable for protection in the conservative restoration of stone, as well as of artistic and monumental constructions, and in the protection of exposed facades. Do not apply to non-absorbent surfaces or surfaces previously treated with water-repellent products that have not been removed.



Solvent	Water
Appearance	Transparent liquid
Specific weight	1 kg/l

Yield	5 - 10 m ² /l
Water absorption reduction	72%
Packaging	5 l canister

LITHOS PLUS

Solvent-based breathable protective treatment

Breathable low-viscosity, highly penetrating water-repellent protective treatment made with siloxane oligomers and additives (DC-OIT and IPBC) for the prevention of biological alteration, diluted in an inert solvent compound. The special solvent allows the active ingredient to penetrate the porous material to a significant depth, guaranteeing elevated protection of the treated surface over time. The product does not modify the breathable nature of the surface, guarantees excellent resistance to UV radiation.

INTENDED USES

LITHOS PLUS can be used on natural stone surfaces and products of all types and natures, even polished, including plaster, concrete, skim plasters or absorbent mineral finishes. The product does not alter the colour of surfaces, rendering it particularly suitable for protection in the conservative restoration of stone, as well as of artistic and monumental constructions, and in the protection of exposed facades. It is suitable for application to poorly absorbent surfaces or surfaces previously treated with water-repellent products that have not been removed.



Solvent	White spirit
Appearance	Transparent liquid
Specific weight	0.78 kg/l

Yield	5 - 10 m ² /l
Water absorption reduction	75%
Packaging	5 l canister

LITHOS TONO

Solvent-based breathable and toning protective treatment

Breathable low-viscosity, highly penetrating water-repellent toning protective treatment made with siloxane oligomers and additives diluted in an inert solvent compound. The special solvent allows the active ingredient to penetrate the porous material to a significant depth, guaranteeing elevated protection of the treated surface over time and lending it a wet-look effect. The product does not modify the breathable nature of the surface and guarantees excellent resistance to UV radiation.

INTENDED USES

LITHOS TONO can be used on natural stone surfaces and products of all types and natures, unpolished or not lead polished, plaster, concrete, skim plasters or absorbent mineral finishes. The product lends a slight toning effect to surfaces and is ideal for the protection of exposed facades. It is suitable for application to poorly absorbent surfaces or surfaces previously treated with water-repellent products that have not been removed.



Solvent	Ethyl acetate
Appearance	Transparent liquid
Specific weight	0.78 kg/l

Yield	5 - 10 m ² /l
Water absorption reduction	78%
Packaging	5 l canister

PRESTIGIOUS RESTORATION

DUOMO

Customisable plastering mortar in natural hydraulic lime NHL 5

DUOMO is a special mortar made exclusively with the purest natural hydraulic lime and mineral dolomitic aggregates, studied specifically to be personalised with the addition of local aggregates or sand, e.g., SABBIA DI FIUME, to characterise the mortar in line with local materials. This satisfies the precise requirements of restoration works and allows for complete affinity and compatibility with period materials, without losing reliability and the advantages of pre-mixed and ready-to-use products.

INTENDED USES

DUOMO is suitable for the creation of traditional plaster, the cladding of sections of masonry or the restoration and pointing of joints in new, period or antique masonry. DUOMO can be used on any masonry in brick or stone of any kind, or on a blend of stone and brick.



Binder	100% Lime NHL 5
Yield	17 Kg/m ² ×cm
Mass (of hardened product)	1700 - 1800 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	μ = 12
Reaction to fire	A1
Packaging	25 kg bag

DUOMO AD ARTE

Custom-made mortar for plaster

DUOMO AD ARTE is a mortar made to order, specifically studied and formulated with components to satisfy functional, aesthetic and chromatic needs of period masonry subject to conservative restoration and repair. DUOMO AD ARTE is a product suitable for the restoration of plasters or pointing mortars on classic or antique walls, guaranteeing the best possible compatibility and affinity with the masonry

INTENDED USES

DUOMO AD ARTE is suitable for the creation of traditional plaster, the cladding of sections of masonry or the restoration and pointing of joints in new, period or antique masonry. DUOMO AD ARTE can be used on any masonry in brick or stone of any kind, or on a blend of stone and brick.



Binder	Project based
Yield	15 - 18 kg /m ² ×cm

Packaging	25 kg bag
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DUOMO FLUID

Lightweight injection mix in natural hydraulic lime NHL 5

DUOMO FLUID is a special inorganic sulphate-resistant blend made exclusively of natural hydraulic lime and lightweight mineral aggregates with a constant grading curve of between 0 and 0.4 mm, suitable for the reaggregation and reanchoring to masonry of partially detached architectural elements, the product allows for the physical, chemical and mineral reproduction of the characteristics of the original hydraulic lime mortar.

INTENDED USES

DUOMO FLUID is a product specifically designed for the readhesion of plaster or either frescoed or non-frescoed masonry coverings that are partially detached from either vertical surface, surfaces that are vaulted or rusticated, as well as architectural elements, if they are made from lime or other hydraulic binders. The product guarantees excellent adherence to surfaces, chemical inertia on surfaces and total compatibility and affinity with building materials, even in the case of conservative restoration.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Chloride content	< 0.05%
Yield	0.9 l/kg

Mass (of hardened product)	1100 - 1200 kg/m ³
Packaging	13 kg bag

DUOMO RINOVA

Plaster/skim plaster in natural hydraulic lime NHL 5
for application in layers of between 3 and 30 mm

Plaster and skim plaster for thicknesses of between 3 and 30 mm made with the purest natural hydraulic lime and dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The product is optimised for mechanical application, is resistant to salts and guarantees full suitability and chemical inertia on surfaces and compatibility with both modern and period masonry. DUOMO RINOVA offers long workability times and is suitable for a range of architectural solutions.

INTENDED USES

DUOMO RINOVA is used for the adjustment and levelling of vertical surfaces and ceilings either internally or externally, in cases of uneven thicknesses and water absorption, if the surface is consistent and solidly attached. It is applicable as a plaster in thicknesses of up to 30 mm, as a skim plaster on existing plaster in thicknesses of at least 3 mm. DUOMO RINOVA is suitable for the creation of reinforced skim plasters with glass-fibre mesh and is compatible with radiant wall heating.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	1.4 kg/m ² ×mm
CE Marking	EN 998-1: GP - CS II
Mass (of hardened product)	1500 -1600 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	μ = 10
Thermal conductivity (λ10,dry) (EN 1745)	0.61 (tabulated value) W/m×K
Packaging	25 kg bag

PRESTIGIOUS RESTORATION

FENIX

Natural hydraulic lime NHL 5

The purest natural hydraulic lime NHL 5 with low soluble salt content suitable for the preparation of highly breathable masonry or plaster mortars that are resistant to sulphates. FENIX is obtained through the low-temperature baking of clay limes (natural Scaglia Rossa Trentina marl). The chemical-physical characteristics and the natural colour of FENIX guarantee full compatibility and chemical inertia on surfaces and with period masonry.

INTENDED USES

FENIX can be mixed with any aggregate if it is free of organic content and salts and has a constant grading curve. FENIX is suitable for the preparation of bedding mortar for masonry in brick, stone and solid brick, for the creation of screed, base-coat or stabilising plaster, where the product facilitates the regulating of humidity in rooms, limiting the risk of condensation and the insurgence of mould.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Recommended dosage	300 - 400 kg/m ³ of mixture
Sulphates	< 2%
Chlorides	< 0.05%

Resistant to compression after 28 days	> 5 N/mm ²
Resistant to compression after 56 days	> 7 N/mm ²
CE Marking	459-1: NHL 5
Packaging	25 kg bag

STONE

Mortar with natural hydraulic lime NHL 5
for the restoration and reconstruction of architectural elements

STONE is a ready-to-use sulphate-resistant product made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm, with improved adhesion and controlled shrinkage and reduced soluble salt content, suitable for the restoration and volumetric reconstruction of stone elements or deteriorated decorative architectural elements. The product is easy to work and mould, and guarantees total compatibility and affinity with building materials, even in the case of conservative restoration.

INTENDED USES

STONE is suitable for the volumetric reconstruction of architectural elements subject to detachment or deterioration over time. It can be applied to stone surfaces in sandstone, limestone, dolomite, carparo, Serena stone or architectural elements in cement or with hydraulic lime. Any present causes of deterioration must be resolved before beginning reconstruction works.



Binder	Lime NHL 5 based
Yield	18 kg/m ² ×cm

Reaction to fire	A1
Packaging	25 kg bag

STONE RESTORATION

STONE COVER

Extremely fine mineral finish with natural hydraulic lime NHL 5
for the restoration of architectural elements

STONE COVER is a ready-to-use sulphate-resistant slim product made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 0.5 mm, with improved adhesion and controlled shrinkage and reduced soluble salt content, suitable for the 5-10-mm cortical restoration of brick elements or deteriorated decorative architectural elements. The product is easy to work and mould, and guarantees total compatibility and affinity with building materials, even in the case of conservative restoration.

INTENDED USES

STONE COVER is suitable for the cortical restoration of deteriorated architectural elements or as a finish for previous volumetric reconstruction works. It can be applied to brick surfaces in sandstone, limestone, dolomite, carparo, Serena stone or architectural elements in cement or with hydraulic lime. Any present causes of deterioration must be resolved before beginning reconstruction works.



Binder	Lime NHL 5 based
Yield	1.7 kg/m ²
Mass (of hardened product)	Approx. 1350 kg/m ³

Water absorption due to capillary action (EN 1015-18)	< 0.4 kg/(m ² ×min ^{0.5})
Packaging	20 kg bag

Wall

- Civil plasters
- Thermal plasters
- Plasters for restoration
- Binders for plasters and mortars
- Bedding mortars
- Pointing mortars
- Special mortars
- Skim plasters/adhesives

The TASSULLO WALL line includes integrated systems of the highest quality and reliability with products for the creation of wall stratigraphies: bedding mortars for different types of masonry, rough bases, plasters and skim plasters with various properties and fields of application.

The use of pure raw materials of the highest quality enables the creation of compounds with low environmental impact, adequate mechanical resistance and high breathability. The products formulated in this way are used in new construction as well as in prestigious building regeneration, historical-artistic restoration and sustainable building projects that are attentive to the wellbeing and healthiness of interiors.

INTOCALX

Highly workable base-coat plaster with natural hydraulic lime NHL 5

Base-coat plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is optimised for mechanical application, offers long workability times and is suitable for a range of architectural solutions.

INTENDED USES

INTOCALX is suitable for application on any brick, masonry, stone or mixed wall, or on any homogeneous and even internal or external surface, and allows for the creation of base-coat plaster on vertical walls and/or ceilings in a single layer of a thickness of 20 mm. Thicker applications require multiple coats of 10 mm each and in accordance with best practices and wait times to allow drying between one coat and the next. INTOCALX is a product formulated to obtain the best balance between workability and compatibility with existing masonry.



Binder	Lime NHL 5 based
Yield	15 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: GP - CS I
Mass (of hardened product)	1400 - 1500 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 14$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.61 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	25 kg bag

CIVIL PLASTERS

INTOCALX FIBRO

Fibre-reinforced base-coat plaster with natural hydraulic lime NHL 5

Fibre-reinforced base-coat plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the utmost quality and the addition of fibres allows for the creation of a product that combines excellent durability with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is optimised for mechanical application, offers long workability times and is suitable for a range of architectural solutions. Its formulation with fibre allows for increased resistance to the forming of cracks.

INTENDED USES

INTOCALX FIBRO is suitable for application on any brick, masonry, stone or mixed wall, or on any homogeneous and even internal or external surface, and allows for the creation of base-coat plaster on vertical walls and/or ceilings in a single layer of a thickness of 20 mm. Thicker applications require multiple coats of 10 mm each and in accordance with best practices and wait times to allow drying between one coat and the next. The product is particularly suited for the creation of plaster on uneven or less than optimal surfaces, or in situations that require a highly stable base coat plaster for subsequent delicate finishes, as its formulation with fibres strongly reduces the formation of cracks. INTOCALX FIBRO is a product formulated to obtain the best balance of workability and compatibility with existing masonry.



Binder	Lime NHL 5 based
Yield	15 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: GP - CS I
Mass (of hardened product)	1400 - 1500 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 14$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.61 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	25 kg bag

INTOCALX IDRO

Hydrophobic base-coat plaster with natural hydraulic lime NHL 5

Hydrophobic base-coat plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance to external alteration with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is applicable by machine.

INTENDED USES

INTOCALX IDRO is suitable for application on any brick, masonry, stone or mixed wall, or on any homogeneous and even internal or external surface, and allows for the creation of base-coat plaster on vertical walls and/or ceilings in a single layer of a thickness of 10/20 mm. The product is suitable for external application where aggressive environmental conditions require additional protection from water-borne pollutants. INTOCALX IDRO is a product formulated to obtain the best balance of workability and compatibility with existing masonry.

Binder	Lime NHL 5 based
Yield	15 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: GP - CS I
Mass (of hardened product)	1400 - 1500 kg/m ³
Water absorption due to capillary action (EN 1015-18)	Wc2



Water vapour permeability coefficient (EN 1015-19)	$\mu = 14$
Thermal conductivity ($\lambda_{10, dry}$) (EN 1745)	0.61 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	25 kg bag

INTOCALX LIGHT

Fibre-reinforced lightweight base-coat plaster with natural hydraulic lime NHL 5

Fibre-reinforced lightweight plaster made with the purest natural hydraulic lime, mineral dolomitic aggregates and perlite with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the utmost quality and low specific weight allows for the creation of a product that combines excellent durability, elevated workability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is applicable by machine.

INTENDED USES

INTOCALX LIGHT is suitable for application on any brick, masonry, stone or mixed wall, or on any homogeneous and even internal or external surface, and allows for the creation of base-coat plaster on vertical walls and/or ceilings in a single layer of a thickness of 20 mm. Thicker applications require multiple coats of 10 mm each and in accordance with best practices and wait times to allow drying between one coat and the next. INTOCALX LIGHT is a product formulated to obtain the best balance of workability and compatibility with existing masonry.



Binder	Lime NHL 5 based
Yield	12 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: LW - CS I
Mass (of hardened product)	1200 - 1300 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 11$
Thermal conductivity ($\lambda_{10, dry}$) (EN 1745)	0.45 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	20 kg bag

CIVIL PLASTERS

T CREAM

Base-coat plaster with hydrated lime and cement for machine application

Highly workable base-coat plaster made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The product is optimised for mechanical application, offers long workability times and is suitable for a range of architectural solutions. T CREAM is also available in a fibre-reinforced version.

INTENDED USES

T CREAM is suitable for application on any brick, masonry, stone or mixed wall, or on any homogeneous and even internal or external surface, and allows for the creation of base-coat plaster on vertical walls and/or ceilings in a single layer of a thickness of up to 20 mm. Thicker applications require multiple coats of 10 mm each and in accordance with best practices and wait times to allow drying between one coat and the next. T CREAM is a product optimised to maximise workability and is particularly recommended for application on newly created surfaces.



Binder	Cementitious
Yield	14 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: GP - CS I
Mass (of hardened product)	1500 - 1600 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 14$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.61 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	25 kg bag

CIVIL PLASTERS

T RIN

Multi-purpose medium primer/coupling agent with natural hydraulic lime NHL 5

Primer suitable for the construction of rough bases and as a coupling agent made with the purest natural hydraulic lime and dolomitic aggregates with a constant grading curve of 0-2 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime.

INTENDED USES

T RIN is used as a coupling agent on all masonry surfaces that, due to their nature (water absorption, roughness, elasticity) may cause poor adhesion, such as: concrete, wood-magnesium panels, plasterboard, existing hydraulic binder-based plaster, as long as it is consistent and well-anchored, and in all cases requiring higher-quality preparation of the base coat for successive applications. The use of T RIN favours the adhesion of successive layers and contributes to regulating the water absorption of the surface. T RIN is a product formulated to obtain the best balance of workability and compatibility with existing masonry.



Binder	Lime NHL 5 based
Yield	4 - 6 kg/m ²
CE Marking	EN 998-1: GP
Mass (of hardened product)	Approx. 1550 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 12$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.61 (tabulated value) W/m×K
Packaging	25 kg bag

VOLCALITE

Thermal insulating plaster in natural hydraulic lime NHL 5

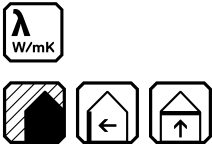
Fibre-reinforced mineral and natural plaster with extremely Bottom thermal conductivity $\lambda=0.07\text{ W/m}^{\circ}\text{K}$ for thermal insulation and restoration, made exclusively with natural hydraulic lime and expanded perlite and silica with a controlled grading curve of between 0 and 3 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is optimised for mechanical application, is resistant to salts and guarantees full suitability, chemical inertia on surfaces and compatibility with modern and period masonry.

INTENDED USES

VOLCALITE has been studied for the creation of external and internal thermal plastering at a thickness of more than 2 cm on brick, stone, solid brick and concrete walls. Its characteristics allow for the elimination of heat bridges and provide a solid barrier to the passage of heat through the treated masonry, resulting in energy savings and comfort. VOLCALITE can also be applied to uneven and flawed masonry with or without traditional plaster. VOLCALITE has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works, offering a valid alternative to thermal insulation through insulating panels or slabs.

Binder	100% Lime NHL 5
Yield	5 - 7 kg/m²×cm
CE Marking and Resistance class	EN 998-1: T - CS II
Mass (of hardened product)	450 - 650 kg/m³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 6$
Thermal conductivity ($\lambda_{10,\text{dry}}$) (EN 12667)	0.07 W/m×K
Reaction to fire	A1
Packaging	13 kg bag



100%
NATURAL
LIME

VOLCALITE AIR PLUS

Thermal insulating plaster in aerogel and natural hydraulic lime NHL 5

Fibre-reinforced mineral and natural plaster with extremely low thermal conductivity $\lambda=0.029\text{ W/m}^{\circ}\text{K}$ for thermal insulation and restoration, made exclusively with natural hydraulic lime and Aerogel. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is optimised for mechanical application, is resistant to salts and guarantees full suitability, chemical inertia on surfaces and compatibility with modern and period masonry.

INTENDED USES

VOLCALITE AIR PLUS has been studied for the creation of external and internal thermal plastering at a thickness between 2 and 4 cm on brick, stone, solid brick and concrete walls. Its characteristics allow for the elimination of heat bridges and provide a solid barrier to the passage of heat through the treated masonry, resulting in energy savings and comfort. VOLCALITE AIR PLUS has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works, offering a valid alternative to thermal insulation through insulating panels or slabs.

Binder	100% Lime NHL 5
Yield	2 kg/m²×cm
CE Marking and Resistance class	EN 998-1: T - CS I
Mass (of hardened product)	200 - 250 kg/m³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 6$
Thermal conductivity ($\lambda_{10,\text{dry}}$) (EN 1745)	0.029 W/m×K
Packaging	7.5 kg bag



100%
NATURAL
LIME

OPUS

Lime plaster in natural hydraulic lime NHL 5

Lime plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The chemical and physical characteristics of lime guarantee excellent adhesion to surfaces, preventing the formation of mould and significantly contributing to regulating humidity in walls and interiors and providing benefits in terms of indoor comfort.

INTENDED USES

OPUS is suitable for use on any brick, masonry, stone or mixed walls or in general on any homogeneous and even internal or external surface. The product allows for the creation or re-integration of period exposed mortar and the creation or re-integration of plaster on vertical walls and ceilings in successive coats of a maximum thickness of 15/20 mm each. OPUS has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	17 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: GP - CS III
Mass (of hardened product)	1800 - 1900 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 12$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	1.11 (tabulated value) W/mK
Reaction to fire	A1
Packaging	25 kg bag

OPUS COCCIO

Lime plaster with crushed pottery and natural hydraulic lime NHL 5

Crushed pottery mortar for plastering, made with the purest natural hydraulic lime, mineral dolomitic aggregates and crushed pottery with a grading curve of between 0 and 3 mm. The product is breathable, resistant to salts, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry. OPUS COCCIO is suitable for architectural solutions that require the works to have a particular colour and the visible presence of crushed pottery aggregates.

INTENDED USES

OPUS COCCIO is suitable for application on any brick, masonry, stone or mixed wall, or on any homogeneous and even internal or external surface, and allows for the creation of base-coat plaster on vertical walls and/or ceilings in a single layer of a thickness of 15/20 mm. Thicker applications require multiple coats and in accordance with best practices and wait times to allow drying between one coat and the next. OPUS COCCIO has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	15 kg/m ² ×cm
Mass (of hardened product)	1600 - 1700 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 12$
Mixing ratio with COCCIO GRANULATO	5:3
Reaction to fire	A1
Packaging	25 kg bag

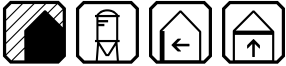
OPUS MEC

Base-coat plaster in natural hydraulic lime NHL 5 for machine application

Base-coat plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The product is optimised for mechanical application, is resistant to salts and guarantees full suitability and chemical inertia on surfaces and compatibility with both modern and period masonry. OPUS MEC offers long workability times and is suitable for a range of architectural solutions.

INTENDED USES

OPUS MEC is suitable for application on any brick, masonry, stone or mixed wall, or on any homogeneous and even internal or external surface, and allows for the creation of base-coat plaster on vertical walls and/or ceilings in a single layer of a thickness of 15/20 mm. Thicker applications require multiple coats of 10 mm each and in accordance with best practices and wait times to allow drying between one coat and the next. OPUS MEC has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



Binder	100% Lime NHL 5
Yield	15 kg/m ² ×cm
CE Marking and Resistance class	EN 998-1: GP - CS I
Mass (of hardened product)	1450 - 1550 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	μ = 12
Thermal conductivity (λ10,dry) (EN 1745)	0.61 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	25 kg bag

OPUS RIN

Primer/coupling agent in natural hydraulic lime NHL 5

Primer suitable for the construction of rough bases and as a coupling agent made with the purest natural hydraulic lime and dolomitic aggregates with a constant grading curve of 0-2 mm. The chemical and physical characteristics of lime guarantee excellent adhesion to surfaces, preventing the formation of mould and significantly contributing to regulating humidity in walls and interiors and providing benefits in terms of indoor comfort.

INTENDED USES

OPUS RIN is used as a coupling agent on all masonry surfaces that, due to their nature (water absorption, roughness, elasticity) may cause poor adhesion, such as: concrete, wood-magnesium panels, plasterboard, existing hydraulic binder-based plaster and in all cases requiring higher-quality preparation of the base coat for successive applications. The use of OPUS RIN favours the adhesion of successive layers and contributes to regulating the water absorption of the surface. OPUS RIN has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



Binder	100% Lime NHL 5
Yield	4 - 6 kg/m ²
CE Marking and Resistance class	EN 998-1: GP
Mass (of hardened product)	Approx. 1500 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	μ = 12
Thermal conductivity (λ10,dry) (EN 1745)	0.61 (tabulated value) W/m×K
Packaging	25 kg bag

CALCE AL

Natural hydraulic binder for non-structural applications

Natural hydraulic binder with low soluble salt content suitable for the preparation of plasters and non-structural masonry mortars. CALCE AL is obtained through the low-temperature baking of clay limes with the addition of active ingredients that render the mortars created highly workable.

INTENDED USES

CALCE AL can be mixed with any aggregate if it is free of organic content and salts and has a constant grading curve. CALCE AL can be used to create base coat or stabilising plasters. If mixed in addition to other binders, it is suitable for the preparation of highly breathable and workable mortars for the bedding of non-structural masonry in brick, stone and solid brick, in new construction works and renovation works.



Binder	Hydraulic binder		
Recommended dosage	300 - 400 kg/m³ of mixture	Resistant to compression after 28 days	> 1 N/mm²
Sulphates	< 2%	Resistant to compression after 56 days	> 2 N/mm²
Chlorides	< 0.05%	Packaging	25 kg bag

BEDDING MORTARS

ECO BUILD

Natural hydraulic lime NHL 5 bedding mortar

Mortar for bedding made for internal and external use, made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry. The product has been studied to improve the healthiness of the air in building interiors thanks to its reduced VOC emissions.

INTENDED USES

ECO BUILD can be used for the creation of any type of internal or external brick, stone or mixed masonry, for the filling of chasing or for cladding. It is a product that has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works requiring elevated compatibility with the original materials, as well as for application in new buildings characterised by a specific focus on healthy environments, breathability and comfort.



Binder	100% Lime NHL 5		
Yield	12 - 35 kg/m²	Water vapour permeability coefficient (EN 1015-19)	μ = 15/35 (tabulated value)
Mass (of hardened product)	1900 - 2000 kg/m³	Reaction to fire	A1
CE Marking and Resistance class	EN 998-2: G - M5, M10	Packaging	25 kg bag

DHOMO
TESTED
AND
APPROVED

100%
NATURAL
LIME

T 200

Highly workable medium mortar with natural hydraulic lime NHL 5

Mortar for bedding made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The chemical and physical characteristics of lime guarantee excellent adhesion to surfaces, both during application and once curing is complete, preventing the formation of mould and significantly contributing to regulating humidity in walls and interiors and providing benefits in terms of indoor comfort.

INTENDED USES

T 200 is used for the creation of masonry of any type, for the filling of chasing or for cladding, and can be applied to any surface. T 200 is a product formulated to obtain the best balance of workability and compatibility with existing masonry and is particularly suitable for prestigious renovation works requiring compatibility with original materials, as well as in all cases in which excellent breathability and healthy environments are necessary.



Binder	Lime NHL 5 based
Yield	12 - 35 kg/m²
Mass (of hardened product)	1800 - 2000 kg/m³
CE Marking and Resistance class	EN 998-2: G - M5, M10, M15, M20

Water vapour permeability coefficient (EN 1015-19)	μ = 15/35 (tabulated value)
Reaction to fire	A1
Packaging	25 kg bag

T 300

Highly workable coarse mortar with natural hydraulic lime NHL 5.

Mortar for bedding for internal and external use, made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The chemical and physical characteristics of lime guarantee excellent adhesion to surfaces, both during application and once curing is complete, preventing the formation of mould and significantly contributing to regulating humidity in walls and interiors and providing benefits in terms of indoor comfort.

INTENDED USES

T 300 is used for the creation of masonry of any type, for the filling of chasing or for cladding, and can be applied to any surface. T 300 is a product formulated to obtain the best balance of workability and compatibility with existing masonry and is particularly suitable for prestigious renovation works requiring compatibility with original materials, as well as in all cases in which excellent breathability and healthy environments are necessary.



Binder	Lime NHL 5 based
Yield	12 - 35 kg/m²
Mass (of hardened product)	1800 - 2000 kg/m³
CE Marking and Resistance class	EN 998-2: G - M5, M10, M15

Water vapour permeability coefficient (EN 1015-19)	μ = 15/35 (tabulated value)
Reaction to fire	A1
Packaging	25 kg bag

BEDDING MORTARS

T BLOCK

Mortar for bedding and exposed pointing of concrete blocks

Hydrophobic mortar for bedding for internal and external use made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of the raw materials selected allows for the creation of a product that combines excellent workability, protection from water, resistance and surface finishing grade, and is therefore suitable for bedding and for the pointing of exposed blocks. The product is available in grey and white.

INTENDED USES

T BLOCK is suitable for the bedding and exposed grouting of normal or hydrophobic concrete blocks, solid or cinder bricks, concrete cinder blocks for exposed masonry or other blocks suitable for exposed masonry, and for laying with traditional mortar.



Binder	Cementitious
Yield	10 - 20 kg/m ²
Mass (of hardened product)	1750 - 1950 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M5

Water vapour permeability coefficient (EN 1015-19)	$\mu = 15/35$ (tabulated value)
Reaction to fire	A1
Packaging	25 kg bag

BEDDING MORTARS

T MIM

Thermal insulating mortar for block beds

Thermal insulating lightweight mortar for the bedding of internal and external masonry made with hydraulic binders, mineral dolomitic aggregates and perlite with a constant grading curve of between 0 and 4 mm. The combination of selected raw materials allows for the creation of a product that combines excellent workability, yield and insulation, thus proving suitable for the bedding of porous blocks or other types of blocks with the aim of combating thermal dispersion through the surface of the masonry.

INTENDED USES

T MIM is ideal for the all-surface bedding of masonry blocks with low thermal dispersion coefficient. It is particularly suitable for the construction of porous brick masonry with the aim of avoiding the presence of heat bridges and the reduction of the theoretical capacity for insulation of the block caused by traditional bedding mortars.



Binder	Cementitious
Yield	15 - 18 kg/m ²
Mass (of hardened product)	1000 - 1100 kg/m ³
CE Marking and Resistance class	EN 998-2: L - M10

Water vapour permeability coefficient (EN 1015-19)	$\mu = 5/20$ (tabulated value)
Thermal conductivity ($\lambda_{10, dry}$) (EN 1745)	0.33 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	25 kg bag

T SPAN

Mortar/skim plaster for calcium silicate or concrete block masonry

White mortar/skim plaster made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of selected raw materials allows for the creation of a product that combines excellent properties of workability, versatility, resistance and adhesion, and that can be applied in thin layers, thus proving to be particularly suited to the bedding and subsequent skim plastering of masonry in blocks in cellular or calcium-silicate concrete with a single product.

INTENDED USES

T SPAN is used as a “thin-layer” bedding mortar (T-type mortar) and as a skim plaster for precision-engineered blocks in cellular or calcium-silicate concrete or equivalent. Thanks to its physical and mechanical characteristics, T SPAN is compatible with the use of fibreglass reinforcement mesh. Thanks to its elevated adhesion even to poorly absorbent and smooth surfaces, T SPAN can be used as a skim plaster on concrete, plasterboard (after the application of a suitable insulating product, e.g., T PRIMER), panels in fibre cement or wood cement, water-repellent plasters or other surfaces.



Binder	Cementitious
Yield	3 - 7 kg/m ²
Mass (of hardened product)	1500 - 1700 kg/m ³
CE Marking and Resistance class	EN 998-2: T - M5

Water vapour permeability coefficient (EN 1015-19)	$\mu = 15/35$ (tabulated value)
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.82 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	25 kg bag

SPECIAL MORTARS

T FLASH

Rapid mortar for sealing chasing and holes with natural hydraulic lime NHL 5

Rapid thixotropic lime plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of raw materials of the utmost quality allows for the creation of a product that offers rapid bonding and hardening, can be finished 30 minutes after application. The product offers elasticity and thermal expansion similar to traditional plaster, elevated plasticity and workability, as well as controlled shrinkage, to avoid the appearance of cracks between the filling and the traditional plaster following both brief and long curing.

INTENDED USES

T FLASH is ideal for the filling and sealing of horizontal and vertical chasing or holes made in brick masonry, concrete, existing plaster made with hydraulic binders, plasterboard, etc., after the installation of electrical or plumbing systems. T FLASH allows for rapid repair works in inhabited areas without requiring multiple days for the finish to be completed. T FLASH is a product formulated to obtain the best balance of workability and compatibility with existing masonry.



Binder	Lime NHL 5 based
Yield	0.7 l/kg
CE Marking and Resistance class	EN 998-1: GP - CS II
Mass (of hardened product)	1600 - 1700 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 14$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.61 (tabulated value) W/m×K
Reaction to fire	A1
Packaging	25 kg bag

POINTING MORTARS

T 20V

Exposed mortar in natural hydraulic lime NHL 5

Mortar for bedding and finishing of exposed masonry made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The product permits a particular grade of finish to be obtained for grouting in the creation and finishing of exposed masonry. It is resistant to salts and guarantees full compatibility and chemical inertia on the surface as well as affinity with both modern and period masonry.

INTENDED USES

T 20V is suitable for the bedding and pointing of any internal or external brick, masonry, stone or mixed wall. The product is particularly suited to the pointing of exposed masonry and/or the restoration of grout lines between stone elements composing the wall. T20 V has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works and conservative restructuring works where the formation of efflorescence poses a serious functional and aesthetic hazard.

100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	10 - 30 kg/m ²
Mass (of hardened product)	1700 - 1800 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M2.5

Water vapour permeability coefficient (EN 1015-19)	$\mu = 15/35$ (tabulated value)
Reaction to fire	A1
Packaging	25 kg bag

POINTING MORTARS

T 20V COLOR

Coloured exposed mortar in lime

Coloured mortar for bedding and finishing of exposed masonry made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The product allows for the obtaining of a particular grade of finish of grouting in the creation and finishing of exposed masonry. T 20V COLOR is available in the colours MONFERRATO, ROMAGNA, ASTI and PUGLIA.

INTENDED USES

T 20V COLOR is suitable for the bedding and pointing of any internal or external brick, masonry, stone or mixed wall. The product is particularly suited to the pointing of exposed masonry and/or the restoration of grouting between elements making up the masonry (stones, bricks, etc.). T 20V COLOR can be used to restore and clad gaps in masonry. The product is formulated in four colours to obtain the best balance between workability, colour rendering and compatibility with existing masonry.



Binder	Cementitious
Yield	10 - 30 kg/m ²
Mass (of hardened product)	1800 - 1900 kg/m ³
CE Marking and Resistance class	EN 998-2: G - M10

Water vapour permeability coefficient (EN 1015-19)	$\mu = 15/35$ (tabulated value)
Reaction to fire	A1
Packaging	25 kg bag

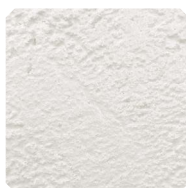
COLOUR PALETTE



Asti



Monferrato



Puglia



Romagna

The colour palette is purely for illustrative purposes and may not correspond to the actual colours

DOMUS PAN

Adhesive/skim plaster in natural hydraulic lime NHL 5

Adhesive/skim plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

DOMUS PAN is used for the installation of breathable panels for thermal insulation (panels in cork, mineral wool, wood fibre, mineralised wood, calcium silicate, minerals in general or other suitable panels) on any brick, masonry, stone or mixed walls, or in general on any homogeneous and even surface, and for the successive application of a skim plaster on external facades before application of a finish. DOMUS PAN has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



Binder	100% Lime NHL 5
Yield	3 - 4 kg/m²
CE Marking	EN 998-1: GP
Mass (of hardened product)	1350 - 1450 kg/m³

Water absorption due to capillary action (EN 1015-18)	Wc2
Water vapour permeability coefficient (EN 1015-19)	μ = 12
Thermal conductivity (EN 1745)	0.45 W/(m×K) (tabulated value)
Packaging	25 kg bag

SKIM PLASTERS/ADHESIVES

EXTRA RASO

Universal lime-based mineral skim plaster

White plaster and skim plaster for thicknesses of between 3 and 30 mm made with the purest hydraulic binders and dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of the raw materials chosen allows for the creation of a product that combines excellent resistance and durability.

INTENDED USES

EXTRA RASO is used for the adjustment and levelling of vertical surfaces and ceilings either internally or externally, in cases of uneven thicknesses and water absorption, if the surface is consistent and solidly attached. EXTRA RASO can be applied as plaster in thicknesses of up to 30 mm and as a skim plaster of at least 3 mm in thickness. EXTRA RASO is suitable for the creation of reinforced skim plasters with fibreglass mesh, such as RETE 160, and is compatible with radiant wall heating.



Binder	Cementitious
Yield	1.4 kg/m²xmm
CE Marking and Resistance class	EN 998-1: GP - CS II
Mass (of hardened product)	1450 - 1550 kg/m³

Water vapour permeability coefficient (EN 1015-19)	μ = 10
Thermal conductivity	0.61 (tabulated value) W/m×K
Packaging	25 kg bag

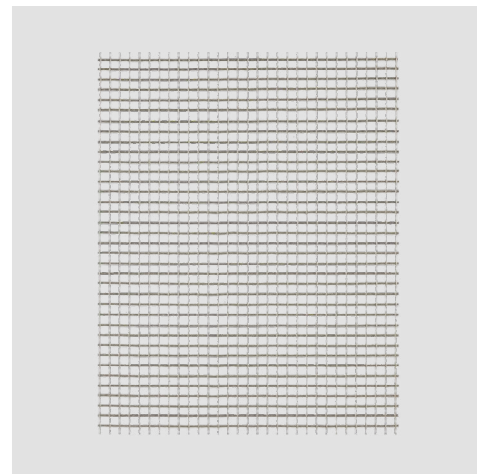
RETE 160

Alkaline-resistant glass-fibre mesh for reinforced skim plaster

≈4×4 mm² coated fibreglass reinforcing rectangular mesh, weight 160 g/m²

INTENDED USES

RETE 160 is used to create reinforced skim plaster on thermal plastering, external insulation, plaster or in general in cases involving the application of a skim plaster on cracked surfaces, to guarantee the solidity and integrity of the same and of subsequent layers. RETE 160 is compatible with the mineral skim plasters from the TASSULLO WALL line, is suitable for internal and external application and lends increased resistance to skim plasters to contain fissures and cracks.



Mass of coated fabric

160 g/m²

Mesh size

3.9×4.3 mm²

Packaging

Roll 1×50 m²

SKIM PLASTERS/ADHESIVES

T A00

Skim plaster in natural hydraulic lime NHL 5, granulometry 0-0.5 mm

Skim plaster made with the purest natural hydraulic lime, mineral dolomitic and silicate aggregates with a constant grading curve of between 0 and 0.5 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

T A00 is used as a skim plaster on all masonry surfaces that, due to their nature (water absorption, roughness, elasticity) may cause poor adhesion and thus require better preparation of the base for the successive finish. Using T A00 consolidates surfaces, favouring adhesion of successive layers of finish and contributes to regulating the water absorption of the surface. T A00 has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works. The use of T A00 allows a smooth-effect skim plaster to be obtained.



Binder

100% Lime NHL 5

Yield

2 - 3 kg/m²

CE Marking

EN 998-1: GP

Mass (of hardened product)

Approx. 1400 kg/m³

Water vapour permeability coefficient (EN 1015-19)

μ = 11

Thermal conductivity (λ10,dry) (EN 1745)

0.61 W/m×K

Packaging

25 kg bag

T A01

Skim plaster in natural hydraulic lime NHL 5, granulometry 0-1 mm

Skim plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

T A01 is used as a skim plaster on all masonry surfaces that, due to their nature (water absorption, roughness, elasticity) may cause poor adhesion and thus require better preparation of the base for the successive finish. Using T A01 consolidates surfaces, favouring adhesion of successive layers of finish and contributes to regulating the water absorption of the surface. T A01 has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works.



Binder	100% Lime NHL 5
Yield	3 - 4 kg/m²
CE Marking	EN 998-1: GP
Mass (of hardened product)	Approx. 1400 kg/m³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 11$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.61 W/m×K
Packaging	25 kg bag

T A02

Skim plaster in natural hydraulic lime NHL 5, granulometry 0-2 mm

Skim plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 2 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

T A02 is used as a skim plaster on all masonry surfaces that, due to their nature (water absorption, roughness, elasticity) may cause poor adhesion and thus require better preparation of the base for the successive finish. Using T A02 consolidates surfaces, favouring adhesion of successive layers of finish and contributes to regulating the water absorption of the surface. T A02 has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works. The use of T A02 allows a rustic-effect skim plaster to be obtained.



Binder	100% Lime NHL 5
Yield	3 - 5 kg/m²
CE Marking	EN 998-1: GP
Mass (of hardened product)	Approx. 1550 kg/m³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 11$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.61 W/m×K
Packaging	25 kg bag

T A04

Skim plaster in natural hydraulic lime NHL 5, granulometry 0-4 mm

Skim plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 4 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent durability and resistance with the natural characteristics of breathability and healthiness typical of natural hydraulic lime. The product is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

T A04 is used as a skim plaster on all masonry surfaces that, due to their nature (water absorption, roughness, elasticity) may cause poor adhesion and thus require better preparation of the base for the successive finish. Using T A04 consolidates surfaces, favouring adhesion of successive layers of finish and contributes to regulating the water absorption of the surface. T A04 has been optimised to maximise compatibility with period masonry and is particularly suited to restoration works. Applied in the correct manner, T A04 allows for the creation of a skim plaster with a textured finish.



100%
NATURAL
LIME



Binder	100% Lime NHL 5
Yield	4 - 6 kg/m ²
CE Marking	EN 998-1: GP
Mass (of hardened product)	Approx. 1700 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 11$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.82 W/m×K
Packaging	25 kg bag

SKIM PLASTERS/ADHESIVES

T A FIBRO

Fibre-reinforced skim plaster in natural hydraulic lime NHL 5

Fibre-reinforced skim plaster made with the purest natural hydraulic lime and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of raw materials of the utmost quality and the fibres contained allow for the creation of a product that combines excellent durability, resistance to alteration and stress, with the natural characteristics of breathability and healthiness of natural hydraulic lime. The product is resistant to salts, does not block vapour, does not contain solvents, and guarantees full compatibility and chemical inertia on surfaces as well as affinity with both modern and period masonry.

INTENDED USES

T A FIBRO is used as a skim plaster on all masonry surfaces that, due to their nature (water absorption, roughness, elasticity) may cause poor adhesion and thus require better preparation of the base for the successive finish. Using T A FIBRO consolidates surfaces, favouring adhesion of successive layers of finish and contributes to regulating the water absorption of the surface, limiting the formation of micro-cracks on the surface. T A FIBRO is particularly suited to the application of skim plasters on uneven or cracked surfaces, or as a base of delicate mineral finishes, thanks to its resistance to the formation of cracks.



100%
NATURAL
LIME

Binder	100% Lime NHL 5
Yield	3 - 4 kg/m ²
CE Marking	EN 998-1: GP
Mass (of hardened product)	Approx. 1400 kg/m ³

Water vapour permeability coefficient (EN 1015-19)	$\mu = 11$
Thermal conductivity ($\lambda_{10,dry}$) (EN 1745)	0.61 W/m×K
Packaging	25 kg bag

T POWER

Adhesive/skim plaster for external insulation

Adhesive/skim plaster for the anchoring and/or skim plastering of insulation slabs, made with hydraulic binders and mineral dolomitic aggregates with a constant grading curve of between 0 and 1 mm. The combination of raw materials of the utmost quality allows for the creation of a product that combines excellent workability, adhesion and elasticity. The product is available in grey or white.

INTENDED USES

T POWER is used for the installation of thermal insulation panels (expanded, extruded or sintered polystyrene, with graphite, in polyurethane, in mineral wool, wood fibre or other panels suitable for insulation) on masonry in concrete, cement blocks, normal, porous or solid brick, and in the subsequent skim plastering of the external facade before application of a finish.



Binder	Cementitious
Yield	3 - 4 kg/m ²
CE Marking	EN 998-1: GP
Mass (of hardened product)	1400 - 1500 kg/m ³

Water absorption due to capillary action (EN 1015-18) Wc2

Water vapour permeability coefficient (EN 1015-19) $\mu = 20$

Thermal conductivity ($\lambda_{10, dry}$) (EN 1745) 0.61 (tabulated value) W/m×K

Packaging 25 kg bag

T PRIMER

Highly penetrating fixing consolidating treatment in aqueous microemulsion

Concentrated highly penetrating nanotechnological consolidating treatment with acrylic resins emulsified in water, able to isolate and consolidate absorbent mineral surfaces that have crumbled and/or show poor cohesion. T PRIMER works both superficially and in depth, re-aggregating the material and eliminating crumbliness without affecting the appearance of the surface.

INTENDED USES

T PRIMER can be used to consolidate plaster, chalks, plasterboard, old finishes and building elements in general with crumbly and/or deteriorated absorbent surfaces. Its formulation renders it particularly penetrating and suitable for surface and in-depth material consolidation.



Solvent	Water
Appearance	Semi-transparent liquid
Specific weight	1.02 kg/l

Yield 8 - 10 m²/l

Packaging 5 l canister

Machinery

INJECTION MACHINE

Multipurpose electric pump for injections and grouting

Multipurpose electric pump with manual flow regulator, for injections of thixotropic mixtures and grouting of masonry with mortars with a maximum grain size of 5 mm. The machine consists of an aluminium structure integrating the pump unit and 220V - 12V power supply, equipped with a containment hopper and control gun.

INTENDED USES

Through three different setups specifically designed by Tassullo, the injection machine allows interventions for the anchoring of preformed connectors using ARMIS BFLUID CONNECT, consolidation injections using the FORTE FLUID product, and stuccoing of exposed masonry with specific pointing mortars such as T 20V. The manual fluid adjustment and the specific accessories provided allow a considerable reduction in working time while ensuring maximum efficiency of the intervention.



Power supply	220 - 12 V
Flow rate	6 l/min
Adjustable pressure	0 - 6 atm
Maximum grain size	5 mm
Motor	140 W

Hopper capacity	13 l
Hose length	4 m
Control	Manual speed control
Weight	15 kg
Dimensions	L x W x H - 40 x 40 x 37 cm

The research

4



THE INTERNAL RESEARCH AND DEVELOPMENT INSTITUTE

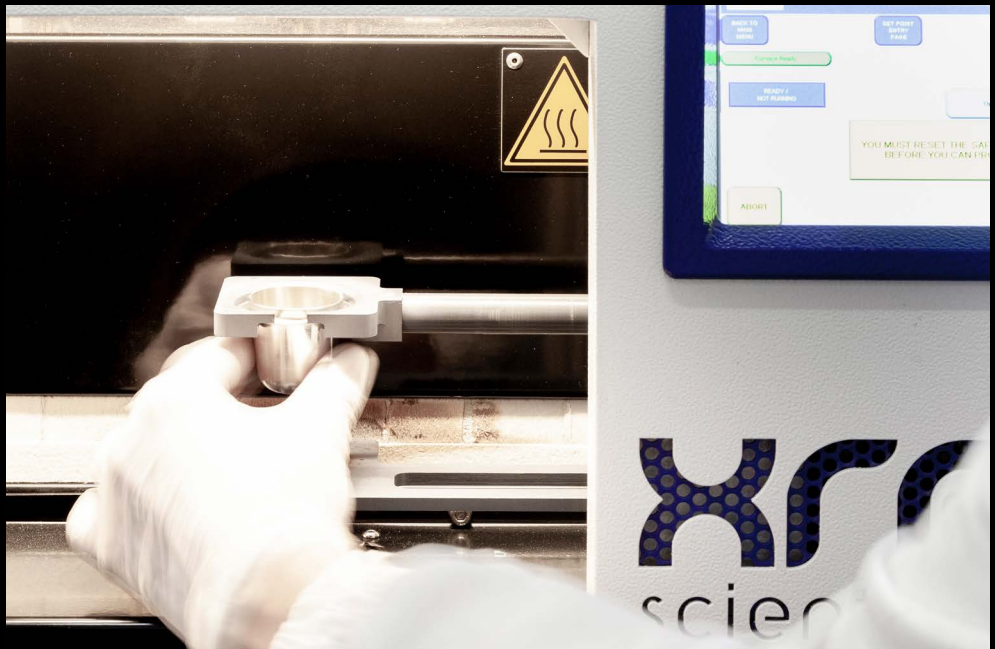


Thanks to significant investments in interdisciplinary research and a know-how on the specificities of Natural Hydraulic Lime that is unique in the industry, our Internal Research and Development Institute constantly updates its range of highly technological and state-of-the-art formulations to address the evolving needs of the market.

INSTRUMENTAL ANALYSIS AND CONSULTANCY

For more than a century, we have been studying the unique characteristics of Natural Hydraulic Lime and sharing our knowledge with developers and contractors looking for the best solutions for their sites.

We support professionals in the sector with Officium Services, highly specialised instrumental analysis protocols, which allow us to provide technical reports that are useful for the correct planning of building restoration works.



OFFICIUM ARMIS

Seismic vulnerability assessment

The service entails the local or global assessment of the mechanical parameters of masonry, the analysis of any structural criticalities and the assessment of the building's vulnerability to static and seismic actions. The service also measures the mechanical characteristics of the masonry to obtain a level of knowledge (LC2, §C8.5.4 NTC) appropriate to the project.

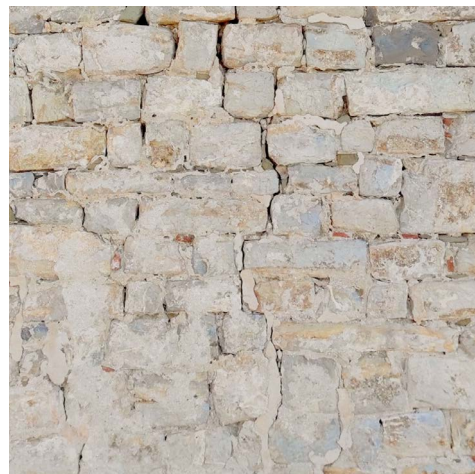
In support of the service, equipment is used such as:

.....
Ultrasonic tests

.....
Flat jack tests

.....
Radar survey

.....
Evaluation of tie rods tensioning using accelerometric method
.....



HISTORICAL MATERIALS

OFFICIUM ARTE

Characterisation and reproduction of historical materials

This service allows for the formulation of mortars and finishes that are 100% consistent and compatible with existing materials, with the specific requirements of the project, with the work and its current state.

In support of the service, the following analyses can be performed:

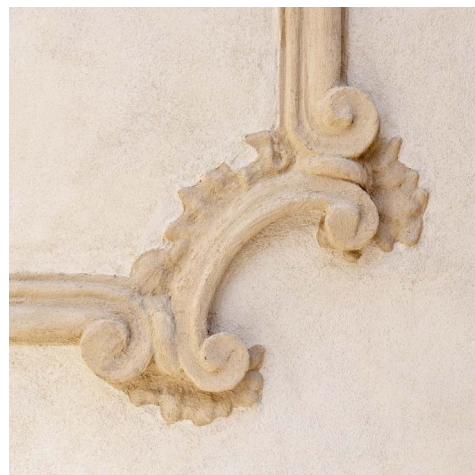
.....
Typological and grain size characterisation

.....
Quantitative characterisation of binders

.....
Differential scanning calorimetry (DSC)

.....
Characterisation by mechanical strength

.....
Quantitative and qualitative analysis of salts
.....



HUMIDITY

OFFICIUM AQUA

Analysis of damp-related problems

The service consists of instrumental analysis and on-site inspection by qualified personnel to analyse the condition of damp walls.

In support of the service, assessment analyses are performed such as:

.....
Moisture measurement by gravimetric method

.....
Quantitative analysis of sulphates, nitrites and chlorides

.....
Measurement of total soluble salts

.....
Mapping rising damp and thermal bridges

.....
Measurement of environmental parameters
.....



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Legend

	NATURAL HYDRAULIC LIME NHL 5 BASED		100% NATURAL HYDRAULIC LIME NHL 5		TESTED AT DHOMO PROJECT		CERTIFIED THERMAL CONDUCTIVITY
	SUITABLE FOR INDOOR USE		SUITABLE FOR INDOOR AND OUTDOOR USE		SUITABLE FOR OUTDOOR USE		
	SUITABLE FOR FLOOR		SUITABLE FOR VERTICAL SURFACES		SUITABLE FOR CEILING		SUPPLIED ALSO IN SILOS
	EUROPEAN TECHNICAL ASSESSMENT		CE MARKING		PATENTED		

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