



GROVE 30

A thixotropic, fibre-reinforced mortar with high compressive strength and pozzolanic reactivity for regularising building surfaces with direct finish to a thickness of 2 mm to 30 mm and for structural interventions with FRCM systems

CE Mark:

- EN 1504-3 - Class: R3-A1

Certifications:

- Contact with drinking water - (Italian)

Ministerial Decree 174/2004

- EN 13501-1 - Class: A1



TECHNICAL SPECIFICATIONS



FIELD OF APPLICATION



APPLICATIONS



Description

GROVE 30 is a powdered single-component pre-mixed product formulated with cement binders with pozzolanic reactivity, silica aggregates and reinforcement fibres.

With the sole addition of clean water, GROVE 30 develops into a highly thixotropic mix suitable for repairing or regularising building surfaces such as concrete or brick walls, stone and tufa, and whenever the coating requires high mechanical strength without any shrinking or cracking.

GROVE 30 is specifically formulated:

- For creating layers with a thickness between 2 mm and 30 mm per coat, up to maximum 50 mm overall without having to add a reinforcement mesh;
- For structural interventions with FRCM systems.

CE Mark

- EN 1504-3

GROVE 30 complies with the principles defined in the EN 1504-9 standard ("Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity. General principles for the use of products and systems") and to the requirements of the EN 1504-3 European standard ("Structural and non-structural repair") for structural mortars of the following class:

→ R3

Certifications

- (Italian) Ministerial Decree 174-2004

GROVE 30 is suitable for repairing concrete or masonry tanks designed for containing drinking water, in accordance with (Italian) Ministerial Decree 174/2004.

- EN 13501-1

European reaction to fire class as per EN 13501-1:

→ A1.

GROVE 30

Colour

GROVE 30 is available in the following colours:

- GRIGIO.

Field of application

GROVE 30 is used to:

- Refurbish and repair deteriorated or new building structures such as, for example, containment tanks of all types and swimming pools to be covered subsequently with tiles, mosaics, mats or resins.
- Refurbish prefabricated structures.
- Refurbish irregular parts caused by incorrectly positioned formwork, honeycombs, spacer holes, recasts, etc.
- Creation of fillets connecting walls and floors.

GROVE 30 is used as an inorganic matrix in FRCM systems for repairing buildings that need to be reconstructed, consolidated and adapted to operating stress, following deterioration due to overloads, collapse, earthquakes and other detrimental events.

Advantages

- GROVE 30 possesses high gripping power on old or new surfaces generally without the need for an adhesion primer.
- GROVE 30 is formulated for being floated with a fine two-coat plaster finish directly after application.
- GROVE 30 can be used as a skim coat to a thickness between 2 mm and 5 mm and as a mortar to a thickness of up to 30 mm per coat.
- GROVE 30 possesses mechanical resistance, elastic modulus values and other physical properties that make it suitable for treating brick, stone, tufa and mixed walls.

General preparation of the laying support

The support must be carefully examined to ensure that it is a suitable and structurally sound base.

Thoroughly clean the surface by eliminating any loose parts.

Wet the laying surface before applying GROVE 30, especially when the product is applied in thin layers.

When used on highly absorbent supports (such as thermal insulation brick) or on particularly difficult supports, scratch-coat the surface with GROVE 30 by adding 5–10% of GROVE PRIMER ECO or NORDLATEX to the mix water.

Preparing the product

Pour into the mixer (4.50–4.75) l of clean water per bag of GROVE 30.

Slowly pour GROVE 30 while mixing and check the mix after 2 minutes.

If necessary, adjust the consistency with water and mix again for 2 minutes

Application of the product

Apply the mix on the area to be repaired or regularised using a trowel, up to the desired thickness.

Use the mix within 1 hour at 20°C.

If additional coats are required, reapply the product within 3–4 hours after the first coat, before the product has finished setting.

As soon as the GROVE 30 mortar begins to set, proceed with float finishing.

► Curing of the product

During the hot season, carefully monitor the curing of GROVE 30 once applied, by wetting the treated part for at least 48 hours after application, especially when working with thin layers (below 5 mm).

► Note

If GROVE 30 is used on structures that come into contact with drinking water, make sure that the product has cured completely for the suggested time, then wash the surface thoroughly to remove any stagnant water before the final filling phase.

GROVE 30

Consumption

TYPE OF APPLICATION	MINIMUM CONSUMPTION	MAXIMUM CONSUMPTION	UoM	notes
To create a 1 cm-thick layer	16	17	kg/m ²	of the powdered product

Cleaning of tools

- Wet product: clean with water (including a power wash).
- Hardened product: remove mechanically.

Useful application tips

- Pay special attention to the indications on the product's curing in adverse weather (hot season and windy conditions).
- Do not apply GROVE 30 on frosted supports.
- Do not apply GROVE 30 under strong sunlight, when rain is forecast or in strong wind.
- Do not mix GROVE 30 again during the setting phase by adding water.

Technical data

► PRODUCT IDENTIFICATION DATA	UoM	value
Consistency	-	powder
Colour	-	Grey
Maximum grain size	mm	1,25
Solid residue	-	100%

► APPLICATION DATA AND FINAL PERFORMANCES	UoM	Value
Colour of the mix	-	Grey
Density of the mix, EN 1015-6	kg/L	1,97 ± 0,05
Maximum applicable thickness when used as a mortar, in two coats	mm	50
Mix water	-	(18-19)%
Consistency of the wet mortar (spreading on flow table), EN 1015-3	mm	170
Duration of the mix	min	60
Application temperature (ambient)	°C	From +5 to +30
Applicable thickness when used as a skim coat, per coat	mm	Da 2 a 5
Applicable thickness when used as a mortar, per coat	mm	Da 2 a 30
Minimum waiting time for subsequent overcoating	days	14
Full curing time (at +23°C, 50% R.H.)	days	28
Adhesion on brick, EN 1015-12	MPa	≥ 1

► TECHNICAL DATA IN COMPLIANCE WITH EN 1504-3	UoM	value
Compressive strength (at 28 days), EN12190	MPa	28,9 ± 0,5
Flexural strength (at 28 days), EN 12190	MPa	7,2 ± 0,2
Adhesion on concrete, support type MC 0.40 (as per EN 1766), EN 1542	MPa	2,8 ± 0,3
Resistance to carbonation, EN 13295	-	Resistant
Capillary absorption, EN 13057	kg/(m ² ·√h)	0,11 ± 0,02
Resistance to freeze-thaw cycles with immersion in deicing salts (measurement of adhesion), EN 13687-1	MPa	> 2,0
Soluble chloride content, EN 1015-17	-	0,01 %
Fire reaction (Euroclass), EN 13501-1	-	A1
Elastic modulus (method 2), EN 13412	GPa	> 15

Storage of the product

- 12 months in the closed original packaging, in a dry and covered place away from direct sunlight, at a temperature between +5°C and +35°C.

GROVE 30

- Protect the product against humidity.

Packages

VARIANT	PACKAGING	ADR	UNITS PER PALLET	COMPONENTS
	bag - 25 kg	NO	48 – bag	

legend

NO = NON DANGEROUS goods

LEGAL NOTES

Advice on how to use our products corresponds to the current state of our knowledge and does not involve the assumption of any guarantee and / or responsibility for the final result of the work. They do not refore exempt the customer from the responsibility of verifying the suitability of the products for the use and the prefixed purposes through preventive tests. The website www.nordresine.com contains the latest revision of this datasheet.

EDITION

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