





-  CONCRETE REPAIR
-  RIPRISTINO DEL CALCESTRUZZO
-  RESTAURATION DU BÉTON
-  NAPRAWA BETONU



## GROVE® RAPIDO

### Fast-setting fibered mortar for concrete repair CE Marked- in compliance with EN 1504-3

#### Description

GROVE RAPIDO is a mortar to be mixed with just clean water, that gives rise to a thixotropic mixture, ideally suited for the reconstruction of missing parts of concrete structures.

It is ideally suited for realizing very thick layers in just one coat (4-6 cm layers).

Once applied this mortar exhibits a high resistance to weathering and fast setting.

GROVE RAPIDO meets the requirements defined in ENV 1504-9 ("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 the requirements of the European standard EN 1504-3 ("Structural and non-structural Repair") for class R3 structural mortars.

#### Where to Use

- for the restoration of concrete missing parts during the restoration of terraces risers and balconies, cast cornices, pillars and beams, floors, stairs;
- to create the cove joints between walls and floor in tanks, foundation walls, etc;
- to make iron covers for spacers in foundation walls reinforced with wooden cylinder caissons.

#### Advantages

GROVE RAPIDO:

- is characterized by high compressive strength;
- can be applied in thicknesses ranging from 4 to 6 cm in a single coat and 10 cm in total;
- is fast-setting and anti-shrinking.

#### Application

##### Substrate Preparation

When re-shaping damaged concrete:

- thoroughly clean and remove all loose particles;
- brush or sandblast any existing reinforcing bar uncovered during the preparation and pre-treatment phase, the day before, with 2 coats of CEM-OX;
- generously wet the laying surface and apply GROVE RAPIDO to the already hardened CEM-OX.

When realizing coves and iron covers over the spacers:

- thoroughly wet the surface and proceed with the application.

##### Mixture Preparation

Mix the contents of a GROVE RAPIDO 25 kg bag with approx. 4.25-4.75 litres (17÷19%) of clean water (cool water in summer) and stir thoroughly with a slow-rotating drilling machine for solid materials (rotor whip), or in a mixer for adhesive, until the mixture is free of lumps and has a smooth consistency.

##### Product Application

Apply with a trowel to any part to be restored until the desired thickness is obtained and which, however, in two coats shall not be greater than approx. 10 cm.

As soon as the mortar starts to set, proceed with floating using a sponge.

##### Surface Finishing

Once the missing part reconstruction is completed and if a finer and smooth finish is desired, a coat of GROVE RASANTE shall be applied and finishing carried out with a sponge float.

##### Product Curing





During hot weather it is imperative to cure the product by wetting the treated area for at least 48 hours after application.

#### Tools Cleaning

Clean tools and equipment with water while the product is still fresh, if it has hardened remove it by mechanical means.

#### Coverage



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To obtain approx. 1 cm thickness of dry product approx. 19 kg of product shall be used per each square meter.

#### Warnings

- Apply at temperatures ranging from +5 to +35°C.
- Pay particular attention to the directions on how to take care of the product and cure it during the most unfavorable seasons of the year.
- Avoid applying in direct sunlight, ensuring that the product is kept in the shade before use.
- Do not apply in thicknesses lower than 1 cm.
- Do not apply in thicknesses greater than 4-6 cm per coat.
- During the setting phase do not remix the product adding water.

#### Colour

This product is only available in its grey standard version.

#### Specifications





PRODUCT IDENTIFICATION / DATA			
Class according to EN 1504-3	---	R3	
Mortar type	---	CC	
Consistency	---	powder	
Max grain size, EN 12192-1	mm	1.25	
Chloride ions content: - minimum requirements ≤ 0.05% - according to. EN 1015-17	%	≤0.05	
PRODUCT APPLICATION DATA (at +20°C and 50% RH)			
Mixing water	%	17-19	
Hardened bulk density	kg/m <sup>3</sup>	1.900	
Application's temperature	°C	from +5 to +35	
Mixture Life	min	15	
Initial setting	min	35	
Final setting	min	65	
FINAL PERFORMANCE (in compliance with EN 1504-3)			
Compressive strength, EN 12190	* after 7 days	MPa	≥ 13
Compressive strength, EN 12190	after 28 days	MPa	≥ 25
Modulus of elasticity secant on compression, EN 13412	after 28 days	Gpa	≥ 17
Adhesion to concrete (substrate Type MC 0.40 - EN 1766), EN 1542	after 28 days	MPa	≥ 1.5
Resistance to accelerated carbonation, EN 13295	---		in compliance with the specification
Capillary absorption, EN 13057	kg/m <sup>2</sup> •h <sup>0.5</sup>		< 0.5
Thermal compatibility measured as bonding (EN 1542) after 50 cycles of freeze thaw by immersion in de-icing salts, EN 13687/1	MPa		> 1.5
Cr (VI) soluble in water, EN 196-10	mg/l		≤ 0.02
Reaction to fire	Euroclass		A1

Note: The test method refers to regulations as indicated on the table

#### Packaging and storage

Packaging	Pallet of 48 x 25 kg bags
Storage	Stable for at least 6 months in a covered and dry place at temperatures between +5°C and +35°C



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### Legal notice

Tips on how to use our products match the current state of our knowledge and do not imply any assumption of responsibility or/and liability for the final result of works. Therefore, customers are not exempt from the responsibility to verify the suitability of products for use and final aims through preliminary tests. The website [www.nordresine.com](http://www.nordresine.com) contains the latest revision of this datasheet.

### Edition

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