MORCEMREST® RF 35

CE EN 1504-3 R3

ÉMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C

GlobalEPD A VERIFIED ENVIRONMENTAL DECLARATION

DESCRIPTION

R3 mono-component medium resistant repair mortar.

TECHNICAL CARACTERISTICS

Product based on special cements, selected aggregates and additives, reinforced with fibres.

ADVANTAGES AND USES

- Class R3 repair mortar in compliance with EN-1504-3
- High strength adhesion for bonding to concrete and average module.
- Thixotropic, no sagging on roof applications.
- Water vapour permeable.
- Retraction compensated to minimise risk of cracking.
- Good resistance to chlorides.
- Resistant to freeze-thawing cycles.
- Good workability
- High resistance to carbonation.
- Suitable for indoor and outdoor applications.
- Weather resistant.
- Repairs to structural elements such as: balcony overhangs, roofs, car parks, beams / pillars on commercial and residential buildings, prefabricated panels, building façades.
- Regularisation of concrete surfaces.
- Lining of canals, tunnels, bridge and balcony overhangs.
- Rendering of elevator pits, chambers, etc.
- Foundations and repairs to paving.

SUITABLE SUBSTRATES

- Substrate must be in good condition, clean, free of grease, oil and badly bonded parts (minimum traction resistance of 1.5 MPa).
- If necessary, make a preparation preferably by using mechanical means and leave to cover the healthy concrete.
- Absorbent substrates must be dampened prior to saturating them, avoiding water logging, apply the product once the surface has acquired a matt appearance.
- If there are any reinforcements, these must first be cleaned of rust, grease and other badly bonded parts. If they are rusted, clean them with sand jets or with a grooved metal brush. Protect the rust with IMPLAREST C.
- On joints of vertical and horizontal supporting walls widen the joint by cutting it to a width of 10 mm with a radial arm saw, and removing the cut material.

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APPLICATION PROCEDURE

Mixing the mortar:

- Add 2/3 parts of water and progressively mix the total amount of powder while stirring. Next add the remaining water and mix for 2 more minutes. Do not prepare more product than is going to be used for 30 minutes (at + 20ºC).

Application:

- Apply MORCEMREST RF 35 with a trowel or spray gun, apply pressure to ensure adhesion and compact the material firmly.
- MORCEMREST RF 35 can be applied in several layers, with a minimum thickness of 5 mm per layer. On vertical surfaces thicknesses of up to 35 mm can be applied without the aid of molds. The maximum thickness per layer on horizontal surfaces is 75 mm.
- On vertical and horizontal interior wall joints, completely fill the width of the joint.

Curing:

- Protect from wind, ice and sun while product is hardening. To avoid excessive drying it is necessary to cover the surface with moist sackcloth or plastic while curing.
- The curing operation is necessary in all cases.

RECOMMENDATIONS

- Do not extra water to the mortar other than the recommended amount nor remix.
- Do not apply under 5ºC nor above 30ºC.
- Do not add cement, sand or other substances that could affect the material's properties.
- On surfaces exposed to exceptional circumstances, it is advisable to use the epoxy bonding bridge IMPLAREST EPW.
- Tools and instruments should be washed with water immediately after use, to avoid hardening of the material which would need to be removed mechanically.
- Consult the Technical Department for any application not specified in this Technical Datasheet.
- For all information regarding safety during handling, transport, storage and use of product please consult the current version of the Product's Safety Sheet.
- When applying the repair mortar without a bonding bridge, the foundation of concrete must be rough, clean and well moistened before, but the surface must be free of water at the time of application, that is, the foundation must not be waterlogged. The repair mortar must be applied making it penetrate into the foundation previously prepared and must be compacted avoiding the inclusion of air in order to obtain the required strength, and to protect the reinforcement from corrosion.

PACKAGING AND STORAGE

5 and 25 kg sacks.
Shelf life: 1 year in sealed original packaging, sheltered from weather conditions and humidity.

MORCEMREST® RF 35

TECHNICAL DATA

(Statistical data obtained under standard conditions)

	R3 REQUIREMENTS	PRODUCT DATA
Aspect		GREY powder
Density of paste		Aprox. 1.9 ± 0,1 gr/cm³
Granulometry		Dmax 2 mm
Coat thickness		5 mm min. 35 mm max.
Resistence to compression 28 days (EN 12190)	> 25 N/mm²	≥ 40 N/mm²
Chloride content (EN 1015)	≤ 0,05%	≤ 0,01%
Adhesion (EN 1542)	≥ 1,5 N/mm²	≥ 2 N/mm²
Resistance to carbonation (EN 13295)	dk ≤ concrete control type MC (0,45)	Pass
Module of elasticity (EN 13412)	≥ 15 GPa	≥ 17 GPa
Capillarity absorption (EN 13057)	≤ 0.5 kg / m-² x h-½	≤ 0.2 kg / m-² x h-½
Thermal compatibility part 1 (EN 13687-1)	≥ 1.5 N/mm²	≥ 1.5 N/mm²
Sudden cooling cycle after high temperatures (50 cycles) (EN 13687-2)	≥ 1.5 N/mm²	≥ 2 N/mm²
Thermal compatibility part 4: Dry thermal cycle (50 cycles) (EN 13687-4)	≥ 1.5 N/mm²	≥ 2 N/mm²
CURVE RESISTANCE Compression: (EN 12190) 1 day 7 days 28 days		 ≥ 15 N/mm² ≥ 30 N/mm² ≥ 40 N/mm²
Flexural strength (EN 12190) 28 days		 ≥ 6.5 N/mm²
Life of mixed product (EN 13294)	20 - 30 minute	20 - 30 minutes
Water content in mixture		14±1%
Performance		2 kg./m²/ mm thick
Classification complies to EN 1504-3:2006 Type		R3 PCC

CE MARK

CE

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EN-1504-3
MORCEMREST RF-35

Product for structurally repairing concrete with PCC mortar. For vertical applications without formwork, it allows layers of 5 to 15 mm and, for horizontal applications, 5 to 50 mm (made with polymer-modified hydraulic cement)

Resistance to compression	R3 Class
Chloride ion content	≤ 0.05%
Adherence	≥ 1.5 MPa
Resistance to carbonatation	Pass
Elasticity module	≥ 15 GPa
Thermal compatibility part 1	≥ 1.5 MPa
Capillary absorption	≤ 0.5 $kg.m^{-2}h^{-0.5}$
Reaction to fire	A1

ENVIRONMENTAL PRODUCT DECLARATION (EPD)

Cement based mortar prepared with aggregates that are supplied close to the production center, which reduces the greenhouse gas emissions that would otherwise arise from their transport. Manufactured in production centers with an Environmental management certified system following ISO 14001 regulation, offering a firm promise of sustainability and respect for the environment.
Cement based mortar with type III ecological label (the most strict) Environmental Product Declaration verified externally by AENOR.

LEGAL DISCLAIMER

The instructions for use are given according to our tests and knowledge and do not imply any commitment by GRUPO PUMA nor free the consumer from the examination and verification of the products for their correct use. Claims must be accompanied by the original packaging to allow a proper traceability.

GRUPO PUMA is not responsible, in any case, for the application of its products or constructive solutions carried out by the application company or other parties involved in the process and / or execution of the work, limiting the responsibility of GRUPO PUMA exclusively to the damages directly attributable to the supplied products, individually or integrated in systems, due to failures in their manufacturing process.

In any case, the drafter of the work project, the technical management or the person responsible for the work, or collaterally the application company or other parties involved in the process and / or execution of the work, must ensure the suitability of the products addressing the characteristics of them, as well as the conditions, support and possible pathologies of the work in question.

The values obtained by GRUPO PUMAS's products or its constructive solutions that, as the case may be, are determined by the EN standards or any other regulation that applies to it in each case refers exclusively to the conditions specifically stipulated in said regulation and that are referred to, among others, to certain characteristics of the support, humidity and temperature conditions, etc. without being them required in the tests obtained under different conditions, all in accordance with the relevant regulation.

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