Technical data sheet - Scheda tecnica - Fiche tecnique - Karta danych technicznych

EN CONCRETE REPAIR

RIPRISTINO DEL CALCESTRUZZO
 RESTAURATION DU BÉTON
 NAPRAWA BETONU



MALTAFIX

High strength, fast setting and non-shrink grout CE-marked R3 (EN 1504-3)

Description

MALTAFIX Malta is a pre-mixed and ready to use grout to be mixed by simply adding clean water. The product forms a thixotropic mix that sets within 20 minutes (at +20°C) and reaches high strength within one hour after application and consequently it is ideally suited to be loaded within a short time from application.

Once applied, this mortar exhibits a high resistance to weathering.

MALTAFIX meets both the requirements set out 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 repairs") for class R3 structural mortars.

Where to Use

MALTAFIX is used for:

- quick repairs of industrial floorings and exterior yards made of either concrete or asphalt;
- compensating either screeds or industrial floors made of concrete prior to subsequent treatments;
- repairs and renovations of sidewalks and natural stone yards grouting mortars;
- fixing poles, pipes, railings and filling cracks, splitting and grouting;
- realizing fast-setting coving between walls and floors;
- realizing concrete covers over the spacers after dismantling wooden formworks in single-faced concreting;
- attaching hooks, rods, clamps.

MALTAFIX is not a suitable product for the realization of any extended addition/fill.

Advantages

MALTAFIX:

- has a high compressive strength starting from an hour after application;
- can be applied in thicknesses ranging from 4 to 6 cm in a single coat;
- is fast-setting and anti-shrinking.

MALTAFIX not only sets fast setting, but also dries very quickly:

	% water content		
	thickness 1 cm	thickness 2 cm	
after 10 hours	6.0 %	6.8 %	
after 24 hours	3.5 %	4.0 %	

Application

Substrate Preparation

Repairing damaged concrete:

- thoroughly clean and remove all loose particles;
- strongly roughen the substrate;
- brush or sandblast any existing reinforcing bar that was uncovered the day before during the preparation and pre-treatment phase to be done with 2 coats of CEM-OX;
- wet the substrate until saturation is achieved.

Repairing asphalt large squares:

- thoroughly remove all dust from the area to be repaired;
- make the edges of the asphalt to repair be vertical;
- moisten the substrate if it is dry.

Making coves and concrete covers over the spacers:

• thoroughly wet the surface and proceed with MALTAFIX.



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Mixture Preparation

Mix MALTAFIX with 4 litres of clean water (cool water in summer) every 25 kg of premixed powder and mix slowly, with at low revolutions professional mixer (with whisk attachment), until a lumps free mixture is achieved.

Mix only the amount of product utilizable within 15 minutes (at +20°C).

Product Application

Apply with a trowel or a spatula. As soon as the mortar begins to set, do the tamping.

Product Curing

During hot weather it is imperative to cure the product wetting the treated area for at least 24 hours after application.

Coverage

To obtain approximately 1 cm thick hardened product, approx. 21 kg/m² of product are required.

Warnings

- Apply at temperatures ranging from +5 to +35°C.
- Avoid applying in direct sunlight, ensuring that the product is kept in the shade before use.
- In hot weather, the applied product shall be cured by wetting the part, if needed, at least during the first day.
- Do not apply in thicknesses lower than 1 cm.
- Do not apply in thicknesses greater than 4-6 cm.
- If the product is in the setting phase cannot be remixed with the addition of water.

Color

The product is available in gray.

Specifications

PRODUCT IDENTIFICATION DATA				
Class according to EN 1504-3		R3		
typology		CC		
consistency		powder		
maximum grain size, EN 12192-1	mm	0.63		
chloride ion content - minimum requirement: ≤0.05% - EN 1015-17	%	≤ 0.05		
PRODUCT APPLICATION DATA (at 20°C and 50% RH)				
mixing water	%	15 to 16.5		
mixture consistency		thixotropic		
bulk density of fresh mortar, EN 1015-6	kg/m ³	2100		
application temperature	° C	from +5 to +35		
mixture pot- life	min	approx. 15		
setting time (start-end)	min	15-20		
commissioning time	hours	24		
minimum applicable thickness	mm	10		
maximum thickness per coat	mm	40-60		
FINAL PERFORMANCE (in accordance with the requirements of EN 1504-3)				
compressive strength, EN 12190 *after 1	n MPa	3		
compressive strength, EN 12190 *after 4	n MPa	5		



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III RIPRISTINO DEL CALCESTRUZZO
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compressive strength, EN 12190	*after 24 h	MPa	17
compressive strength, EN 12190	*after 7 d	MPa	30
compressive strength, EN 12190 *after 28 d		MPa	≥ 35
flexural strength, EN 12190	*after 7 d	MPa	6
flexural strength, EN 12190	*after 28 d	MPa	7
secant modulus of elasticity in compression, EN 13412		GPa	≥ 22
adhesion to concrete (substrate type MC-0.40 according to EN 1766), EN 1542	after 28 d	MPa	> 2
resistance to carbonation, EN 13295			past
capillary absorption, EN 13057		kg/m²∙h ^{0,5}	< 0,05
thermal compatibility as measured by adhesion (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

* This test is not required for CE marking according to EN 1504-3.

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

Labelling, packaging and storage

Indication of danger	Xi
Packaging	 5 kg polythene bag in a 5 bags box - 24 boxes per pallet. 25 kg bag in a 48 bags pallet
Storage	6 months when stored in the original unopened packaging, in a dry place at temperatures ranging from +5°C to +35°C. The product is moisture sensitive.

Legal notice

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