Fibrocem R2

Fiber-reinforced thixotropic mortar for the restoration and smoothing of concrete. One-component with compensated shrinkage. Semi-rapid setting.

R2 EN 1504-3 PCC

CE EN 1504-3

0 mm TIXOTROPIC TECHNOLOGY

HIGH AND LOW THICKNESS

Fields of application:

- for restoring degraded concrete;
- for rebuilding the iron covering layer in reinforced concrete decayed due to iron oxidation, passivating reinforcing irons;
- for filling defective surfaces in concrete, such as screeds, industrial floors, ramps, etc;
- for restoring and rebuilding pillars, beams, treads, risers, edges, projecting and decorative elements;
- for normalizing concrete surfaces;
- professional use only.

Characteristics:

Fibrocem R2 is an anti-shrinkage thixotropic mortar with semi-rapid setting for the structural restoration of concrete to carry out restoration and smoothing of concrete in a single solution. It has an excellent workability, with thickness from 2 to 40 mm, and a very good finishing degree; thus, it is suitable for regularizing, smoothing, re-building surfaces in concrete and reinforced concrete, mortars in general, cement-based renders and screeds. As it has an excellent mechanical resistance, it is also used for horizontal elements in concrete, string courses, treads in balconies and terraces.

Application:

It is applied by professionally preparing the surfaces to be treated, removing dust, brittle parts, grease and any paint. Carefully clean the reinforcing irons until they are free of rust using a manual or electric metal fiber brush, or by sanding. Apply **Ferrocem** on the reinforcing irons as a protection against any oxidation and corrosion. The substrate to be treated must be rough, so as to ensure the bonding, and sufficiently wet. **Fibrocem R2** must be mixed with 5,5 L clean water per 25 kg bag until getting the wished density, considering that the quantity of added water influences the drying time of the product. Do not add other aggregates or binders to the mixture; in case of several overlapped coats, apply before the coat below has dried.

Quality and Environmental Standards;

Fibrocem R2 undergoes constant, careful testing at our laboratories, in compliance with the legislation in force UNI EN ISO 9001/2015.

CE

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DOP-IT-01-064
FIBROCEM R2
EN 1504-3:2005
Hydraulic mortar modified by the addition of polymeric additives R2-PCC

Resistance to compression	Class R2
Fire reaction	A1
Content of chloride ions:	≤ 0.05%
Capillary absorption and water permeability	≤ 0.5 kg * m^{-2}*h$^{-0.5}$
Thermal compatibility: frost-thaw	≥ 0.8 MPa
Direct tensile adherence:	≥ 0.8 MPa
Release of harmful substances:	See Safety data sheet

Characteristics	Application methods	Consumption
One-component Semi-rapid Mixture pot life: about 50 minutes Final hardening: 70 minutes Mixture water: about 5.5 l every bag Min. coat thickness 2 mm Max. coat thickness: 4 cm Resistance to compression after 28 days: >15 MPa Resistance to flexure after 28 days: >5 MPa Working temperature: from -30° to +90°C Paintable: after about 4 hours Granulometry: 0.4 mm	Trowel Smooth trowel	17 kg/m^2 every cm of thickness **Storage** Shelf life of 12 months in the original packages and in a fresh, dry place

Code	Product	Color	Packages	Pallet
404021	Fibrocem R2	Grey	5 kg (4x5)	480 kg
404020	Fibrocem R2	Grey	25 kg	1500 kg

Warning

- do not apply in temperatures below +5°C. or above +35°C.;
- do not apply to concrete surface that are particulary smooth; roughen up the surface prior to use;
- after application, ensure the area reconditioned sets properly by making sure the water does not evaporate too fast;
- do not apply to frozen bases or those at risk of freezing during the 24 hours following application;
- do not pour on.

Technical and application specifications

Hazard classification as per Directive 99/45/EC:	**irritant**
Specific weight of mixture:	**1.94 g/cm^3**
Pot life:	**approx. 50 minutes**
Application temperature:	**from +5°C to+35°C**
Mixing water ratio:	**22% (about 5,5 lt eeach 25kg bag)**
Mixture pH:	**over 12**
Start / end of paste:	**50-70 (+21°C)**
Minimum coat thickness:	**2 mm**
Maximum coat thickness	**40 mm**
Granulometric range:	**0-0.4 mm**
Room/ambient temperature:	**from -30 °C to +90°C**
Harmonised customs code:	**38245090**

Performance EN 1504-3 R4 class	process	minimum requirements	value
Compression resistant after 28 gg	**EN 12190**	≥ 15 Mpa	18 Mpa
Bending resistance after 28 gg	**EN 196/1**	none	5 Mpa
Adhesion (28gg)	**EN 1542**	≥ 0.8 Mpa	>1.5Mpa
Resistance to carbonation	**EN 13295**	depth of carbonation ≤ reference concretes	passed
Elastic module to 28 gg	**EN 13412**	≥ 20GPa	22 Gpa
Frost-thaw cycle thermal compatibility	**EN 13687-1**	≥ 0.8 Mpa	≥ 1.5 Mpa
Capillary absorption	**EN 13057**	≤0,5 kg * $m^{-2}h^{-0,5}$	≤0,5 kg * $m^{-2}h^{-0,5}$
Chloride ion content	**EN 1015-17**	≤ 0,05 %	≤ 0,05 %
Reaction to fire	**EN 13501-1**	euroclass	A1

Measurement of data at 23°C/50% Residual Humidity and no ventilation. The data may be considerably modified by the conditions of use.