

Description

Betonfix RCA is a thixotropic, hydraulic, ready-to-use mortar with compensated shrinkage and synthetic fibres, enriched with corrosion inhibitors. The product does not contain metal particles and is chloride-free. Betonfix RCA has high resistance to sulphates and guarantees strong adhesion to concrete, stone walls and terracotta.



Betonfix RCA meets the principles set out in EN 1504-9 ("Products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and conformity assessment. General principles for the use of products and systems") and is CE marked accordingly to the requirements of EN 1504-3 for structural mortars R3 ("Structural and non structural repair").

Uses

Betonfix RCA is used for the restoration of deteriorated reinforced concrete structures such as pillars, beams, cornices, balcony mouldings, bridges, road and rail viaducts, canals, dams, tunnels: for structural and functional restoration of walls and stone or clay brick vaults.

Application

Betonfix RCA is ready-to-use on the addition of 4-5 litres of drinking water per 25 kg pack, according to the type of application (with a trowel or spray). The substrate must be perfectly clean, compact, free from dust, grease, paint, etc. Carefully remove the deteriorated and flaky concrete using a hammer until the substrate is compact. Where metal reinforcements are visible, remove any adjoining concrete with a needle gun, hydrosand the entire surface and protect the metal reinforcements with Betonfix KIMIFER applied by brush with a double coat. Soak the area to be treated eliminating any pools of water when casting. Mix for maximum 2 minutes with a cement-mixer or, for small quantities, with a mechanical stirring device and an agitator. Making sure to add 3/4 of the required water first, then pour the product and the remaining water continuously until you obtain the consistency required. Apply with a trowel or spray with suitable plastering machineries. If a continuous covering is envisaged with Betonfix RCA, the entire concrete surface must be bushhammered. Place a suitable electro-welded galvanised metal mesh anchored to the substrate, and apply the mortar to ensure an embedded steel bar minimum 2 cm thick. For thicknesses of over 6 cm replace Betonfix RCA with Betonfix CR (pourable) using suitable caissons.

Characteristics	Value
Appearance	Powder
Colour	grey
Apparent specific weight UNI 9446	1,35 ± 0,1 g/cm ³
Hazard classification 1999/45/CE e 67/548/CEE	Irritant
Maximum inert material size UNI EN 1015-1	2 mm
Apparent volumetric mass of wet mortar UNI EN 1015-6	2050 ± 50 Kg/m ³
Consistency UNI 7044/72	50-70 %

Characteristics	Value
Pot life UNI EN 1015-9	80 ± 30 mins
Minimum application temperature	+5 °C
pH of mixture	12 ± 0,5
Setting time UNI EN 196-3	150 ± 30 mins
Setting time UNI EN 196-3	230 ± 30 mins
Contrasted expansion UNI 8147	0,05 %

Caratteristica	Limits for R3 mortars	Value
Compression strength 28 days UNI EN 12190 [MPa]	≥ 25	> 25
Modulus of elasticity on compression EN 13412 [GPa]	≥ 15	19,8
Chloride content EN 1015-17 [%]	≤ 0,05	0
Concrete adhesion (UNI EN 1542) [MPa]	≥ 1,5	2,2
Concrete adhesion (UNI EN 1542) after dry-thermal ageing EN 13687-4 [MPa]	≥ 1,5	> 1,5
Concrete adhesion (UNI EN 1542) after thunder-shower cycles EN 13687-2 [MPa]	≥ 1,5	> 1,5
Concrete adhesion (UNI EN 1542) after frost-thaw cycles EN 13687-1 [MPa]	≥ 1,5	1,9
Resistance to accelerated carbonation, UNI EN 13295	Carbonatazione < than control value UNI EN 1766	OK
Waterproofing (capillary absorption coefficient, UNI EN 13057) [Kg/m ² ·h ^{1/2}]	≤ 0,5	< 0,5

Coverage

17 Kg/m²/cm

Packaging

25 kg multilayer polythene bag.
1,500 kg pallets.

Storage

Protect from humidity. Store the product in a sheltered and dry place; in these conditions and in unopened containers it remains stable for 12 months.

Warning

Product intended for professional use. Do not remix by adding water to the product when it has already started to set. Do not add concrete, additives or other Betonfix mortars. Before using, check bags have not been damaged, and do not use the product if there are any lumps. Use the entire contents once the bag has been opened. Take all necessary precautions to ensure correct curing of the casting. Do not use at temperatures of under +5 °C. Wet with water for the first 48 hours, or cover with plastic sheets or damp jute bags. Do not use anti-evaporation agents in case other coatings are to be performed. The technical specifications and application methods recommended herein are based on our current knowledge and experience and do not represent any form of guarantee of the final results obtainable with the product. It is the customer's responsibility to check that this data sheet is still effective and has not been replaced with a more recent version, and that the product is suitable for the intended use.