

Betonfix MONOLITE C

ST5-0117

High-strength, normal curing, pourable mortar for cortical repair



DESCRIPTION

Betonfix MONOLITE C is a mortar with a normal curing, anti-shrinkage, ready to use, pourable, added with synthetic fibers.





It has high mechanical resistance to both short and long curing, strong adhesion to concrete, high resistance to sulphates and excellent durability even in highly aggressive conditions (marine areas, de-icing salts, acid rains).

It is CE marked as R4 according to UNI EN 1504-3 and for reinforcement steel rebars protection systems (according to 1504-7).

USES

Collaborative castings, rigid fillings of joints with a thickness higher than 4 cm, thick reinstatements of deteriorated reinforced concrete works, concrete floors, slabs, road and railway structural RC elements.

APPLICATION

	Pourable		Curing time: 250 ± 30 mins
			Mixing water: 3,75-4 lt/ 25Kg
	Max thickness: 40-100 mm for horizontal application 40-100 mm for vertical application		

The substrate must be perfectly clean, compact, free from dust, grease, varnishings, etc.

Carefully remove degraded and inconsistent concrete using hammer and chisel until you get a compact substrate.

The superficial tensile strength of concrete "Pull off" mustn't be lower than 1,5 Mpa as indicated in the substrate quality check procedures according to EN 1504-10.

If the substrate has lower mechanical characteristics, the designer will evaluate the measures to be taken to protect themselves from the poor characteristics of the original material (contact our Technical Dpt).

The concrete in contact with exposed steel reinforcements must be removed by means of a needle gun and it is necessary to sand the exposed rebars.

Wet the area to be treated and remove any water stagnation at the time of casting in order to obtain a SSD.

The product can be used with the simple addition of potable water, in the quantity indicated in the table. Mix the product for max. 2 minutes with a cement mixer or, in the case of small mixes, with a drill and whisk. Introduce 3/4 of water and mix the product and the remaining water until you get the desired consistency.

CONSUMPTION

2000 Kg/m³.

PACKAGING

Multilayer polythene bag 25 Kg.

STORAGE

Protect from humidity. Products to be stored in a dry, sheltered place. Under these conditions and in intact containers, the product maintains its technical characteristics for 12 months.

Characteristics	Value
Aspect	Powder
Colour	Grey
Apparent specific weight UNI 9446	1,40 ± 0,1 g/cm ³
Mixing water	5-5,25 litri
Hazard classification 1999/45/CE & 67/548/CEE	Irritant
Granulometric interval UNI EN 1015-1	0,1 – 0,5 mm
Apparent volumetric mass of fresh mortar UNI EN 1015-6	2050 ± 30 Kg/m ³
Initial hardening time UNI EN 196-3 at 20°C & 65% H.R.	250 ± 30 mins
Final hardening time UNI EN 196-3 at 20°C & 65% H.R.	400 ± 30 mins
Minimum application temperature	+5 °C

pH of the mixture	12 ± 0,5
Dangerous substance	In compliance with MD 10/05/2004

Characteristics	Limits EN 1504-3 for R4 mortars	Value	
		@ +5°C	@ +21°C
Compressive strength UNI EN 12190 [MPa]	In 28 dd, curing at +21°C ≥ 45	1d ≥ 8 7dd ≥ 25 14dd ≥ 35 28dd ≥ 45	1d ≥ 15 7dd ≥ 35 1dd ≥ 40 28dd ≥ 50
Flexural strength UNI EN 196-1 [MPa]	No request	1d ≥ 2 7dd ≥ 4 14dd ≥ 5 28dd ≥ 6	1d ≥ 4 7dd ≥ 6 14dd ≥ 7 28dd ≥ 8
Secant modulus of elasticity in compression EN 13412 [GPa]	≥ 20	≥ 20	
Chlorides content EN 1015-17 [%]	≤ 0,05	≤ 0,05	
Adhesion to CLS (UNI EN 1542) [MPa]	≥ 2	≥ 2	
Adhesion to CLS (UNI EN 1542) after dry cycles EN 13687-4 [MPa]	≥ 2	≥ 2	
Adhesion to CLS (UNI EN 1542) after storm cycles EN 13687-2 [MPa]	≥ 2	≥ 2	
Resistance to accelerated carbonation, UNI EN 13295	Carbonation depth, dk < Reference concrete type MC 0,45 a/c	OK	
Impermeability to water (capillary absorption coefficient, UNI EN 13057) [Kg/m ² ·h ^{1/2}]	≤ 0,5	< 0,5	
Reaction to fire	-	A1	

Characteristics	Limits EN 1504-7	Value
Test of protection against corrosion (UNI EN 15183) after 10 cycles of condensation with water, 10 cycles of sulfur dioxide in accordance with EN ISO 6988, 5 days of saline fog according to EN 60068-2-11	After the series of cycles, coated steel bars must be free of corrosion. The penetration of rust at the end of the steel plate without coating must be <1 mm	OK
Pull-out strength of the bars treated (UNI EN 15184), relative load to a displacement of 0.1 mm	Load of at least 80% on uncoated armor	OK
Determination of the glass transition temperatures (UNI EN 12614)	At least 10°K above the maximum operating temperature	NPD

WARNING

Product intended for professional use.

Colors of different batches using the same raw materials may be slightly different, they may have tiny chromatic variations between batches of production which in no way impair the technical performance of the products supplied.

Do not remix with water any product that has already

started to set.

Do not add cement, additives or other Betonfix mortars. Before using, check bags have not been damaged, and do not use the product if there are lumps.

Use all the material once the package is opened.

Take all necessary precautions to ensure correct curing of the castings.

Do not cast at temperatures below +5 ° C.

Wet with water for the first 48 hours, or cover with plastic sheets or damp jute bags.

Do not use anti-evaporation products if there is no provision for further coatings.

The technical specifications and application methods recommended here 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 it has not been replaced by a more updated version, and that the product is suitable for the intended use.