



Betonfix 200

ST10-0221

*Fluid slurry for anchoring, injections with aggregates.
Suitable for high resistance concrete.*



DESCRIPTION

Betonfix 200 is a high resistance expansive hydraulic slurry with high mechanical resistance for both short and long curing. Betonfix 200 does not contain chlorides, ferrous particles or corrosive agents which could cause damage to the reinforcements and the metal equipment. CE marked as anchoring of reinforcement steel in compliance with the EN 1504-6, the product is also compliant to the UNI 8147 standard.

ADVANTAGES

- High resistance expansive slurry even at short curing.
- Excellent adhesion: ideal on solid substrate (concrete, masonry, rock).
- Versatile: aggregates added to be used for castings with volumetric stability.

USES

Betonfix 200 is used to fill rigid structural joints by injection into protective pre-stretched cable containment shells, to block tie rods and metal reinforcements (for both brickwork and rockwork), anchoring and to regenerate and consolidate mixed masonry subject to cracking. It is used to prepare concrete castings with volumetric stability, by adding appropriate aggregates. It can be pumped with a low water/concrete ratio, has high mechanical resistance at both short and long curing, with great resistance to chemical attack from sulphates.

WORKS

- Anchoring of reinforcement rods with cement mortar ([SA1](#))

APPLICATION

	Pourable		Mixing water: 5,4-6,4 lt/ 20 Kg variable according to the desired workability
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Betonfix 200 is ready-to-use on the addition of drinking water.

It is used to produce high-quality concrete, **Betonfix 200** must be mixed with washed aggregates materials in the appropriate granulometric curve for a dosage of 400-500 kg/m³ and mixed with drinking water to obtain the required consistency (maintaining the water/**Betonfix 200** ratio below 0.5).

The substrate must be clean and solid.

Soak the area to be treated eliminating any pools of water when casting. Mix the product for about 5 minutes with a cement-mixer or, for small quantities, with a mechanical stirring device and an agitator. Add 3/4 of the water required, then add the product and the remaining water continuously until you obtain the consistency required.

Once a smooth and free of any lumps mixture is ready, pour or inject it with the usual equipment. Do not run castings with temperatures lower than 2°C.

CONSUMPTION

Used as a ready-to-use slurry: 1,6 kg/dm³ .
For high quality concrete: 400-500 kg/m³.

PACKAGING

20 kg multilayer polythene bag.

STORAGE

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

Characteristics	Typical Value
Appearance	Powder
Colour	grey
Apparent specific weight UNI 9446	0,90 ± 0,1 g/cm ³
Hazard classification 1999/45/CE e 67/548/CEE	Irritant
Maximum aggregates material size EN 1015-1	200 µ
Apparent volumetric mass of wet mortar EN 1015-6	2050 ± 50 Kg/m ³
Mixture consistency UNI 7044/72	> 200%
Contrasted expansion UNI 8147	0,075 %
Fluidity EN 445 (Marsh cone)	0 min. – < 60 sec.
	30 min. – < 60 sec.
	60 min. – < 60 sec.
Restrained expansion UNI8147	0,075 %
Minimum application temperature	+5 °C
pH of mixture	12 ± 0.5
Exudation UNI 8988	Absent

Characteristics	EN 1504-6 Limits "Anchoring of steel armor"	Typical value
Resistance to the pull-out of the steel bars. Moving with a loaded of 75 KN [mm] EN 1881	≤ 0,6	Ok
Compressive strength [MPa] EN 12190	> 80% of the value after 7 days	In 1 day > 50 In 7 days > 70 In 28 days > 85
Flexural strength [MPa] EN 12190	Not demanded	In 1 day > 3,5 In 7 days > 5 In 28 days > 9
Modulus of elasticity at compression [Gpa] UNI 6556	Not demanded	23
Adhesion to reinforced concrete [Mpa] EN 1542	Not demanded	> 2
Reaction to fire EN 13501-1	Euroclass	A1
Chloride ions content	≤ 0,05%	Ok

WARNING

Product for professional use.

Given the possibility that different supplies of the same raw materials have slightly discordant colors, including a lot of production and the other may be minor color variations that do not affect in any way the technical performance of the products supplied.

Do not mix with other binders (concrete, lime, gypsum).

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. Do not remix by adding water to the product when it has already started to set. Take all necessary precautions to ensure correct curing of the casting. Wet with water for the first 48 hours, or cover with plastic sheets or damp jute bags.

For further information and advice on safe handling, storage and disposal of chemical products, the user must refer to the most recent Safety Data Sheet, containing physical, ecological, toxicological and other data related to safety.

All technical data shown in this Technical Data Sheet are based on laboratory tests. Actual measurement data may vary due to circumstances beyond our control.

The information and requirements indicated in this Technical Data Sheet are based on our current knowledge and experience and are to be considered, in any case, purely indicative. They cannot guarantee the final result of the applied product and they have to be confirmed by exhaustive practical applications; therefore the user must test the suitability of the product for the intended application and its purpose. Users must always refer to the latest version of the local technical data sheet related to the product.

TECHNICAL SPECIFICATIONS

SK1 – Anchoring of reinforcement rods with cement mortar

Anchoring of reinforcement rods with cement mortar after drilling with suitable equipment, cleaning with compressed air jets, insertion into the holes made of metal reinforcements and anchoring by injection of Betonfix 200 mortar by Kimia S.p.A. or similar product (respect a consumption of 1.6 kg per liter of structure to be filled). The hydraulic binder will be prepared and applied scrupulously following the indications given on the technical data sheets provided by the Manufacturer and must have the following characteristics:

- Compressive strength in 1 day > 50 Mpa; in 7 days > 70 Mpa; in 28 dd > 85 Mpa.
- Flexural strength in 1 day > 3,5 Mpa; in 7 days > 5 Mpa; in 28 days > 9 Mpa.
- Secant elastic compressive modulus UNI 6556: 23000 ± 1000 Mpa;
- Concrete adhesion EN 1542 > 2 Mpa.

The product will be CE marked according to the EN 1504-6.