Betonfix 300

ST13-0922

Osmotic waterproofing mortar used to waterproof tanks and basements, even in counter-thrust.

DM 21/03/73 acqua potabile

EN 1504-2

CE

DESCRIPTION

Betonfix 300 is an osmotic waterproofing cement-based mortar, to use even in thin layers, It is a perfect sealing agent for porous surfaces and cracks in the substrate. It is flexible, it can adapt to small deformations of the structure.
It does not contain chlorides or aggressive agents which could cause corrosion.
It is CE marked as protective coating according to the 1504-2, MC and IR intervention principles.
It is suitable, mixed with **Kimitech ELASTOFIX,** for contact with potable water according to the D.M. 174-06/04/2004.

CHARACTERISTICS AND ADVANTAGES

- Versatile: can be used as a protective coating of structures in reinforced concrete and in contact with potable water; mixable with water or latex Kimitech ELASTOFIX.
- Easy application: by brush, trowel or airless spray pump.

USES

Betonfix 300 is used for the waterproofing of structures with positive water pressure (tanks, tubs, water purifers installations, reservoirs, flower boxes, canals) and with negative one (galleries, lift wells, basements, underground rooms).

WORKS

- Waterproofing works subject to negative hydraulic forces (**SA11**)
- Waterproofing of drinking water tanks (**SA14**)
- Waterproofing of tanks and fountains (**SA15**)

APPLICATION

	Manual application		Curing time Normal: 175 ± 30 mins
	Mechanical devices application		Mixing water: 5-6 lt/ 20Kg variable according to the desired workability
	Brush or paint roller application		

Before applying make all the preliminary steps for a correct application of the product.

- In the case of waterproofing from the inside of underground walls, wells and structures subjected to negative hydraulic pressures in general, proceed to the creation of channels and systems for the collection and evacuation of water .

- In the presence of concentrated water leakage, pick out the point of seepage, clean around it and apply hydraulic mortar **Betonfix WW** . If there are diffused seepages on the surface, apply **Betonfix WW** directly on the surface to allow the product to knead with the exudation of water and then block the porosity.

Particular attention should be paid to the preparation of substrates:

- The existing coatings must be controlled, clean (for installation on tiled floors with **Soluzione P**) and mechanically prepared to reach a sound and adherent ground. In case of poor adhesion to the substrate, coatings must be removed. Any holes or irregularities of the substrate must first be repaired with suitable Kimia products.

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- In the case of degraded substrate check the depth of degradation and repair through cortical repair cycle.

- The concrete castings, properly completed, must be structurally sound (the tensile “pull off” strength of concrete must be >1.5 MPa). Remove each detached part or every part having poor mechanical properties. Remove dust, existing coatings, grease, rust, release agents, paint, cement laitance and any other substance or material which may affect the adhesion of coatings by sandblasting, high pressure, washing or brushing.
  Deep and extensive irregularities (gravel nests, leaks between castings etc.) must first be resolved.

- The connections between wall and floor, in the case of waterproofing interventions in the presence of negative hydraulic pressure, will be treated by means of connecting gutters.

- If there are joints, opt for a proper renovation cycle and waterproofing.

- Any critical contact points between screed and collection wells, before being sealed, will be subject to removal of the tiles, cleaning and eventual reconstruction of the outer edges of the connecting joints.

Add the water to each pack (25 kg) of **Betonfix 300**. To increase flexibility and to get a trowable two-component system, Betonfix 300 can be mixed with **Kimitech ELASTOFIX**.
Saturate with water the area to be treated, taking care to eliminate, at the time of casting, any pools of water. Stir the product for about 5 minutes with a cement mixer or, in case of small quantities, with drill and whisk. Add 3/4 of the water or latex and then, gradually, the product until you get the right consistency.
Once obtained a homogeneous mixture free of lumps, make it rest for 10 minutes and then apply with a brush, spatula or spray with an airless pump.
In case of deformable structures, reinforce the coat using **Kimitech 350** glassfiber net.

CONSUMPTION
1,5 Kg/m²/mm.

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	Value
Appereance	Powder
Colour	grey and white
Apparent specific weight UNI 9446	0,92 ± 0,1 g/cm³
Hazard classification 1999/45/CE e 67/548/CEE	Irritant
Maximum inert material size EN 1015-	0,5 mm
Apparent bulk of wet mortar EN 1015-6	1450 Kg/m³
Consistency UNI 7044/72	40 - 50 %
Pot life EN 1015-9	80 ± 20 mins
Setting time (start) EN 196-3	175 ± 30 mins
Setting time (end) EN 196-3	270 ± 30 mins
Minimum application temperature	+ 5 °C
pH of mixture	12 ± 0,5
Maximum recommended total thickness	5 mm

Characteristics of the hardened product (mixing water 33%)	Value
Compression strength in 28 days EN 12190	> 1,5 MPa, < 5 MPa
Flexural strength in 28 days EN 12190	> 1,5 MPa
Resistance to positive pressure UNI EN 12390/8	5 bar
Resistance to negative pressure UNI EN 8298/8	2,5 bar

Characteristics (mixing water 33%)	Limits EN 1504-2 Covering C, principles MC and IR	Value
Characteristic	Limits EN 1504-2 Covering C, principles MC and IR	Fulfilling Standards
Adhesion to concrete EN 1542	Flexible systems Without trafficking >0,8 Mpa; with trafficking >1,5 Mpa. Rigid systems Without trafficking >1 Mpa; with trafficking >2 MPa.	> 0,8 N/mm²
Permeability EN ISO 7783-2	Class I (permeable to vapour) Sd < 5 m Class II 5 m ≤ Sd ≤ 50 m Class III (no permeable to vapour) Sd > 50 m	Class I
Capillary absorption and permability to water EN 1062-3	< 0,1 Kg/m²·$h^{0,5}$	< 0,1 Kg/m²·$h^{0,5}$
Reaction to fire class	Value declared	A1

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

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do not affect in any way the technical performance of the products supplied.
Before using, check bags have not been damaged, and do not use the product if there are any lumps.
Do not remix by adding water to the product when it has already started to set.
The equipment used for the preparation and installation of the product must be cleaned with water before hardening.
For later applications always work wet on wet.
Do not apply at temperatures below +5 °C, when it is about to rain or on surfaces in direct sunlight.
Once work is completed, wait at least 7 days before refilling the waterproofed items with water or other liquids.
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

SK11 - Waterproofing works subject to negative hydraulic forces
SK14 - Waterproofing of drinking water tanks
SK15 - Waterproofing of tanks and fountains

Cleaning of the substrate (aimed at the total elimination of dust, grease, old paints, inconsistent parts, detachment and those that don't have sufficient mechanical characteristics and any other material that may affect the good anchoring of the work), possible cortical restoration and/or skim coating of deep and extended irregularities.

(SK 11 – SK 15) Preliminary treatment of joints and fittings and infill of local or generalized water infiltrations with Betonfix WW mortar by Kimia S.p.A. or similar product

Perform waterproofing with Betonfix 300 mortar (consumption of about 3.5 kg / sq m) mixed with 35% by weight with Kimitech ELASTOFIX. by Kimia S.p.A. or similar product, reinforced with Kimitech 350 mesh.

The waterproofing mortar with an osmotic effect for thin-layer waterproofing will be prepared and applied scrupulously following the instructions on the technical data sheets provided by the manufacturer and must have the following characteristics:

- Maximum size of the EN 1015-1 aggregate: 0.5 mm;
- Consistency of the UNI 7044/72 mixture: 40 - 50%;
- Duration of the mix EN 1015-9: 80 ± 20 minutes;
- Start of setting EN 196-3: 175 ± 30 minutes;
- End of setting EN 196-3: 270 ± 30 minutes.

The product will be certified relating to global migration in distilled water according to the M.D. 21.03.73 and later modifications (after immersion for 2 hours at 40 ° C the analytical value found will not be higher than the legal limit set at 10 mg/dm2).
The product will be CE marked as a type C second protective coating according to EN 1504-2, MC and IR intervention principles.
In case of waterproofing tanks containing drinking water (SK14), after a minimum of 7 days, apply a two-component non-toxic solvent-free epoxy resin KIMITECH K40 AP white by Kimia S.p.A. or similar product (consumption not lower than 0.5 kg/sqm).