

Betolastic (A+B)

BI-COMPONENT ORGANIC MINERAL MEMBRANE, EASY TO APPLY, ANTI-ALKALINE, BREATHABLE, GUARANTEED FOR WATERPROOFING CEMENT SUBSTRATES BEFORE LAYING CERAMIC TILES. IDEAL FOR PROTECTING CONCRETE SURFACES AND FOR RESTORING OLD WATERPROOFING WITHOUT DEMOLISHING THE EXISTING FLOOR. FOR INDOORS AND OUTDOORS.



TECHNICAL DATA SHEET - REV. 01/2024

DESCRIPTION

BETOLASTIC (A+B) is an easy-to-apply, anti-alkaline, breathable mineral organic membrane consisting of: 'component B' made with cementitious binders, selected aggregates and special additives; 'component A' made with synthetic polymers in aqueous dispersion. Mixing them produces an easily workable mixture of fluid consistency, which can be applied by roller or brush, either horizontally or vertically. BETOLASTIC (A+B) adheres perfectly to all concrete, masonry and ceramic surfaces. Thanks to its composition, it allows the creation of flexible, crack-bridging waterproofing with high adhesion, durability and permanent elasticity on balconies, terraces and bathrooms, forming a continuous layer resistant to the aggressive action of agents such as CO₂, SO₂ or the chemical aggression of de-icing salts. Use ARMOFLEX 160 as reinforcement between the first and second coat.

Compliant with European Standard EN 14891 for liquid-applied water-resistant cement products with improved crack-bridging capacity at very low temperatures (-20 °C) and resistant to contact with chlorinated water (CM02P).

Conforms to European Standard EN 1504-2, coating (C) according to PI (protection against penetration risks), MC (moisture control) and IR (increased resistivity).

FIELDS OF APPLICATION

BETOLASTIC (A+B) is used for the protection and flexible waterproofing, with permanent crack-bridging ability, of cement screeds or concrete substrates in general, provided they are perfectly cured and not subject to rising damp, both of new constructions and of old structures to be restored. BETOLASTIC (A+B) can be used for waterproofing balconies, terraces, roofs, kitchens and bathrooms before laying ceramic floor coverings with deformable adhesives, even when overlaying existing floor coverings or for repairing old waterproofing. BETOLASTIC (A+B) is also suitable for the protective waterproofing treatment of concrete structures such as pylons, beams, underground elements, lift pits, concrete foundations.

SUBSTRATE PREPARATION

Always provide the appropriate slopes and flatten the evenness of surfaces to eliminate any hollows and allow water to drain off properly.

Substrates must be sufficiently dry and seasoned, flat, solid, compact, free of crumbling or loose parts, and free of dust, grease, oils, paints, waxes or anything else that may affect the perfect adhesion of the product. Cementitious screeds must have already undergone hygrometric shrinkage, which can be assessed in at least 28 days, and must be dry with a moisture content of less than 4%.

In the presence of downgraded concrete structures, remove detaching concrete (hydro-sandblasting or high pressure water wash recommended) and then clean the oxidation of the iron reinforcements. Particularly deteriorated and rusted substrates must be vigorously brushed or sandblasted and treated to prevent further oxidation. Reconstruct the initial concrete volumes and even out the surface with thixotropic, fibre-reinforced, shrinkage-compensated mineral mortar PRATIKO R 3 TIXO. Regularise the evenness of old cement screeds with NEOCEM PRONTO FIBRATO fast-drying, shrinkage-compensated ready-mixed screed.

Old ceramic floor coverings must be undamaged, strong, well adhered, dry and clean from residues of previous processing and from anything that could impair the adhesion of the product such as oils, greases and waxes. For proper cleaning, wash the floor with a solution of water and caustic soda (30%) and rinse thoroughly with water to remove any residue.

APPLICATION

To prepare the product, pour 13.3 kg BETOLASTIC 'component A' (liquid) into a clean container and slowly add 6.7 kg BETOLASTIC 'component B' (powder) under mechanical stirring. Use an electric whisk mixer at low speed to avoid excessive incorporation of air. Stir the mixture, taking care to remove the part of the powder that is not perfectly dispersed from the sides and bottom of the container, until the mixture has a smooth, homogeneous and lump-free fluid consistency. On very windy days, with very high temperatures or in the presence of particularly absorbent substrates, it is advisable to dilute the mixture obtained with 1-1.5 litres of clean water, so as to improve its workability. Provide for the treatment of pipes or drains and the placement of system accessories G-TEX STRIP H 15 for sealing floor-to-wall connections, G-TEX STRIP 90 and G-TEX STRIP 270 for sealing floor-to-wall connections at 90° and 270° angles respectively. Bond system accessories by applying BETOLASTIC (A+B) with a roller, brush or spray.

Proceed with waterproofing the surface by applying BETOLASTIC (A+B) mixture to the entire substrate by roller, brush or spray in at least two coats, not exceeding a maximum thickness of 1.2-1.5 mm per coat. Fresh on fresh, place the ARMOFLEX 160 between the first and second coats, always repeating with a clean roller to ensure perfect contact and to allow any air bubbles to escape. Make overlaps of at least 10 cm between one roll of ARMOFLEX 160 and the other, sealing the overlaps with the same BETOLASTIC (A+B). When the first coat is sufficiently dry and hardened, apply a second coat of product in crisscross patterns, respecting a total consumption of 2.2-2.8 kg/m².

After complete curing (at least 5-6 days), proceed with the installation of the planned ceramic coating with COLMEF mineral adhesives. Apply the adhesive using a trowel with suitable teeth and lay the covering in accordance with UNI 11493. Design the expansion joints of the covering on those existing in the substrate. If needed, provide additional expansion joints according to the size of the surface to be covered, to the format and the type of material used (indicatively, make fraction joints every 9-15 m²). Always set up joints between tiles as per standard UNI 11493.

If a ceramic covering does not need to be laid, proceed with the application of protective liquid technology membranes such as MANTOFLEX or ELASTOGUM, which come in different colours.

YIELD

2.2 - 2.8 kg/m² of BETOLASTIC (A+B) applied in two coats with ARMOFLEX 160 in between.

RECOMMENDATIONS

- ◆ On surfaces larger than 40m², always provide expansion joints.
- ◆ Do not apply on screeds, plaster and concrete not perfectly cured or on wet substrates or if imminent rain is forecast and on very sunny surfaces.
- ◆ When the weather is very hot, do not expose the material to sunlight before use, regardless if in powder or liquid form.
- ◆ Protect the waterproofed surface from rapid evaporation, especially on hot or very windy days, covering it with waterproof sheets.
- ◆ Protect the waterproofed surface from rain, frost or direct sunlight until it is fully cured.
- ◆ Temperature variations can significantly affect the curing time of the product.
- ◆ Do not work in temperatures below +5°C or above +35°C.
- ◆ Wash all the equipment used for preparing and applying the product with water before it hardens. After setting, the mortar can only be removed mechanically.

PACKAGING

BETOLASTIC (A+B) is supplied in 20 kg units containing BETOLASTIC 'component A' in a 13.3 kg bucket and BETOLASTIC 'component B' in a 6.7 kg bucket, on 880 kg pallets. Store the product in a dry place and in its original packaging, well closed. In these conditions its stability lasts at least 12 months.

SAFETY INSTRUCTIONS

BETOLASTIC 'component B' contains cement that produces an irritating alkaline reaction when in contact with body sweat. BETOLASTIC 'component A' contains no solvents and is therefore not flammable or harmful to health. The resin used is highly adhesive; prolonged use may lead to skin sensitisation. Use suitable gloves, goggles and protective clothing.

Refer to the respective Safety Data Sheet for more information about how to use the product safely.

SPECIFICATIONS

Flexible waterproofing, with permanent crack-bridging ability, high adhesion, durability and permanent elasticity by application of a two-component, easy-to-apply, anti-alkaline, breathable, organic mineral membrane classified as CM02P by Standard EN 14891 and compliant with Standard EN 1504-2 coating (C), according to PI-MC-IR principles, type **BETOLASTIC (A+B)** by Colmef Srl. The membrane must be applied in two coats, using a roller or brush, placing a technological fiberglass mesh, resistant to alkalis, such as ARMOFLEX 160 by Colmef Srl, between the first and second coat. Adjacent fabrics should be overlapped along the edges by a length of at least 10 cm and sealed with the same **BETOLASTIC (A+B)**. Observe a total consumption of 2.2-2.8 kg/m² depending on the condition of the substrate. The waterproof layer will be suitable to directly receive the ceramic coating to be laid with class C2 S1 cementitious adhesive.

TECHNICAL DATA

Compliant with Standard:	EN 14891 EN 1504-2	
Class according to EN 14891:	CM02P	
Class according to EN 1504-2:	covering (C), principles: - protection against penetration risks (PI) - moisture control (MC) - increase in resistivity (IR)	
	COMPONENT A	COMPONENT B
Appearance:	liquid	powder
Colour:	white	grugui
Apparent specific weight (kg/m ³):	1.1	1.3
Solid residue (%):	58	100
pH value:	≥ 10	-
Mixing ratio:	comp. A : comp. B = 2 : 1	
Feasible thickness per coat (mm):	1.2 - 1.5	
Maximum achievable thickness (mm)	< 4	
Mixture pot life:	~ 1 h	
Allowed application temperature:	from +5 °C to +35 °C	

FINAL PERFORMANCE according to EN 14891 Class CM02P

	Requirements	Results	Test method
Initial adhesion (N/mm ²):	≥ 0.5	1.3	EN 14891
Adhesion after immersion in water (N/mm ²):	≥ 0.5	1.1	EN 14891
Adhesion after heat action: (N/mm ²):	≥ 0.5	0.9	EN 14891
Adhesion after freeze-thaw cycles ((N/mm ²):	≥ 0.5	0.8	EN 14891
Adhesion after immersion in basic water (N/mm ²):	≥ 0.5	0.8	EN 14891
Impermeability to pressurised water:	no penetration	no penetration	EN 14891
Crack-bridging ability (mm):	≥ 0.75	0.8	EN 14891

FINAL PERFORMANCE according to EN 1504-2 principles PI-MC-IR

	Requirements	Results	Test method
Adhesion to concrete after 28 days at +20°C and 50% RH (N/mm ²):	for flexible systems with no traffic ≥ 0.8 with traffic ≥ 1.5	1.02	EN 1542
Thermal compatibility with storm cycles, measured as adhesion (N/mm ²):		1.03	EN 1542
Permeability to water vapour - equivalent air thickness S _D (m):	Class I S _D < 5 (permeable to vapour)	S _D < 4.0 μ = 984	EN ISO 7783-1
Capillary absorption and impermeability to water (kg/m ² ·h ^{0.5}):	< 0.1	0.06	EN 1062-3
Permeability of carbon dioxide (CO ₂) - diffusion in equivalent air thickness S _D CO ₂ (m):	S _D > 50	S _D = 234	EN 1062-6

DATA DETECTION AT +23°C - 50% R.H. AND IN ABSENCE OF VENTILATION

The information in this bulletin is based on our best experience. We cannot be held liable for any product misuse. We therefore recommend anyone who intends to use this product to assess whether it is suitable for the intended application and to perform preliminary tests in any case. Always refer to the latest updated version of the technical data sheet available at www.colmef.com.

FOR MORE INFORMATION OR PARTICULAR USES, CONTACT THE COLMEF TECHNICAL SUPPORT DEPARTMENT.

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