Rev 2
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ELASTOTEK

Bicomposant elastomeric resistant and protective waterpoofing coating agent

DESCRIPTION

Protective, waterproofing, elastomeric and colored coating agent based on modified water-repellent polyurethane resins, solvent and bitumen free.

GENERAL FEATURES

Bi-component product characterized by an excellent elasticity, a good mechanical strength, an excellent chemical resistance, a good leveling power and a great impermeability to water. It can be applied with a roller, brush, spatula or airless sprayer.
In its silver version, the special pigments based on lamellar structured aluminum, make the coating particularly resistant to sunlight, which does not require any further protective treatment such as aliphatic finishing or UV resistant agents. It even benefits from thermal insulation.

CARATTERISTICHE TECNICHE

Dry residue	100%
Colour	Silver gray other RAL upon request
Consistency	thick liquid
Mixing ratio comp. A+B	100 + 52 parts weight
A+B mixture specific gravity	1,20 ± 0,03 g/cm^3 (silver aluminized version)
Specific gravity of A+B mixture	1,35 ± 0,03 g/cm^3
Pot life (workability time)	70' for 200 g
Minimum application temperature	+ 5 °C
Maximum application temperature	+ 35 °C
Interval between passes	16-24 ore (with reinforcement)
Hardening	walkable after 24 h
Touch drying time (a 20 °C)	6 h
Deep drying time (a 20 °C)	24 h
Full hardening (a 20 °C)	7 days
Optimum thickness	400 µm

MAIN APPLICATIONS

- Coating and waterproofing of cementitious surfaces in general.
- Coating of fiber cement roofs.
- Coating and waterproofing of roofs and terraces in cement or stone material.
- Coating of first rain tanks (excellent resistance to chlorides and sulfates).

ELASTOTEK is also available in the version for vertical application and suitable, therefore, for the covering of tanks, walls against the ground, etc. (ELASTOTEK TIXO) and in the version with excellent mechanical resistance (ELASTOTEK TOP). (ELASTOTEK TIXO) and in the version with excellent mechanical resistance (ELASTOTEK TOP).

TECHNICAL DATA SHEET

Several other applications are possible. Contact the Technical Department.

THEORETICAL YIELD

2,2-2,6 Kg/sqm both with American trowel, roller, brush and spray application, according to the state of the support and in any case not less than 3 mm thick.

Fiberglass netting is a must where there is significant expansion (expansion joints, structural discontinuity and nature of the substrate).

APPLICATION

Application orientation cycle:

- Thorough media cleaning
- (Before applying ELASTOTEK, completely remove all traces of oil, grease, old paint, crumbling parts, bitumen, etc. from the surface to be coated).
- If the application must be made on bituminous sheaths (slated or not) it is mandatory to apply a layer of our TEKNALAST (see technical data sheet). Once dried, it is possible to proceed with the application of the first layer of ELASTOTEK; it can be applied with American spatula, roller, brush or airless spray.
- Apply fiberglass mesh (if provided).
- Proceed with the second layer of ELASTOTEK.

Number of layers:

- if reinforcement is used: 2, interspersed with the insertion of glass mesh reinforcement, or other materials (in the latter case subject to compatibility testing).
- if you do not use the reinforcement, which, in any case, is highly advisable, you can apply the product to thickness in a single pass, or wet on wet directly.

Avoid applying the product in the presence of humidity caused by rising damp.

METHOD OF USE

Before mixing components A and B with each other, they must first be mixed separately in order to re-homogenize the separate components during storage.
Use clean tools for the above operation: if the same tool (e.g. spatula or helical impeller) is used to mix separately comp. A and comp. B separately, this must be thoroughly cleaned before switching from one component to the other.
The base and reagent are then weighed in the quantities indicated in the technical documentation:

- for self-levelling Standard version (**ELASTOTEK**):
  100 parts by weight of A + 52 parts by weight of B
- for the Thixotropic version (**ELASTOTEK TIXO**):
- 102 parts by weight of A + 52 parts by weight of B
- for the Resistant version (**ELASTOTEK TOP**):
  100 parts by weight of A + 30 parts by weight of B

using a sufficiently precise scale, and then mixed together at low speed (in order to avoid the excessive incorporation of air), using a drill fitted with a helical impeller (such as those used for mixing paints and varnishes); for small quantities of mixture it is sufficient to use a long spatula. Mixing must be carried out in a clean container of suitable capacity and last for one minute. The mixture should then be poured into another container and re-homogenized until the color is completely homogenized, in order to avoid transporting (from the bottom or walls of the first container) any poorly catalyzed product fractions.

Since components A and B are pre-weighed, in the original packages, in the correct cross-linking ratio (100+52 parts by weight), it is advisable, when possible, to organize the work so as to use the entire contents of the packages.

PACKAGING

ELASTOTEK (self-levelling version)
Kit (A= 10,00 kg B=5,20 kg)

ELASTOTEK TIXO (thixotropic version)
Kit (A= 10,20 kg B=5,20 kg)

ELASTOTEK TOP (self-levelling resistant version)
Kit (A= 10,00 kg B=3,00 kg)

In the original sealed packaging, stored at temperatures between +5°C and +35°C, the product is valid for 8 months.

WARNING

Always use personal protective equipment during handling and application.

LEGAL NOTES

The information contained in this technical data sheet, while representing the most advanced stage of knowledge, does not exempt the user from performing accurate preliminary tests under their own conditions of use and operation. We therefore decline all responsibility for the improper use of the product.

PRODUCT ITEM

Protection of concrete structures subject to high thermal expansion and cyclical mechanical stress, particularly exposed to the aggressive action of industrial atmospheres of carbon dioxide (CO2) and ultraviolet rays, by means of a two-component elastic coating based on aliphatic polyurethane resins (such as ELASTOTEK by TEKNA CHEM SpA). The coating should be applied in two layers by brush, roller or spray for a minimum dry thickness of at least 400 µm after the application of a layer of 50 µm of dry thickness of the relative epoxy-polyamide primer (such as TEKNALAST by TEKNA CHEM SpA).

The finish shall have the following characteristics:

Colour	Silvery gray
Volumic mass (EN ISO 2811-1) (g/cm^3)	1,3 ± 0,05
Dry residue by volume (A+B) (%)	50 ± 2
Adhesion to concrete (ASTM D4541) (N/mm^2)	> 3
Lenghtening to brake (%)	420
Overlapping time	12-24 h
Consumption	1,15 kg/m^2 for 2 layers (400 µm of dry thickness) 0,12-0,15 kg/m^2 (ELASTOTEK for 50 µm of dry thickness)

Performance characteristics related to CE marking according to EN 1504-2, system 2+ E 3, class ZA.1d + ZA.1e (C, principi PI – MC – IR)

NORM	TEST	RESULTS AND COMPLIANCE WITH REQUIREMENTS	
EN ISO 2409	Oblique cut	outcome/class	GT1, compliant (≤ GT2)
EN 1062-6	CO_2 permeability	µ S_D (m) dry thickness related to S_D (m) outcome/class	842.773 337 0,00040 Compliant (S_D > 50 m)
EN ISO 7783	Water vapor permeability	µ S_D (m) dry thickness related to S_D (m) outcome/class	11342 4,5 0,00040 I (S_D < 5 m)
EN 1062-3	Capillary Absorption and water permeability	w [kg/(m^{2}h^{0,5})] outcome/class	0,003 Compliant (w < 0,1)
EN 1062-11 4.1	Thermal compatibility: aging: 7 days at +70 °C	outcome/class	Compliant (adhesion ≥ 0,8 N/mm^2)
EN 13687-1	Thermal compatibility: freeze-thaw cycles with de-icing salt immersion	outcome/class	Compliant (adhesion ≥ 0,8 N/mm^2)
EN 13687-2	Thermal compatibility: storm cycles	outcome/class	Compliant (adhesion ≥ 0,8 N/mm^2)
EN 13687-3	Thermal compatibility: thermal cycling without immersion in deicing salts	outcome/class	Compliant (adhesion ≥ 0,8 N/mm^2)
EN 1062-7 statico	Crack resistance	crack bridging ability (µm) outcome/class	1633 A4 (> 1,25 mm)
EN 1062-7 dinamico	Crack resistance	outcome/class	B4.1
EN 1542	Direct traction grip test	outcome/class	Compliant (adhesion ≥ 0,8 N/mm^2)
EN 13501-1	Reaction to fire	euroclass	B s1 d0
EN 1062-11:2002 4.2	Artificial Weather Exposure	outcome/class	Compliant
EN 1081	Antistatic behavior	outcome/class	II (electrical resistance > 10^6 e < 10^8 Ω)
	Dangerous substances	outcome/class	Compliant

Performance characteristics according to EN 1504-2 in addition to the requirements for class ZA.1d + ZA.1e

NORM	TEST	RESULTS AND COMPLIANCE WITH REQUIREMENTS	
UNI 7928	Chloride ion diffusion	penetration (mm)	0,00
UNI ISO 5470-1	Abrasion resistance	outcome/class	Compliant (Δ weight < 3000 mg)
EN ISO 2817-1 – NH_4	Chemical Resistance	outcome/class	Compliant
EN 13529 – H_2SO_4 20%	Resistance to severe chemical attack	outcome/class	Class II (Δ shore D < 50%)

TECHNICAL DATA SHEET