



Rev 0
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TEKNALAST

Cementing bi-component elastic sheath for durable structures protection and waterproofing



DESCRIPTION

The product TEKNALAST is a waterproofing and protective product for concrete surfaces, balconies, terraces, swimming pools. It is an ideal product for waterproofing concrete tanks for water containment, bathrooms, showers, balconies before laying ceramic cladding; it is also suitable for plasterboard, plaster or cement surfaces. It is very effective for the protection of surfaces that can be in contact with sea water, thawing salts or sulphate salts. It also protects against the infiltration of aggressive atmospheric agents (CO₂ type), plaster or concrete with cracks due to shrinkage or insufficient iron cover.

CARATTERISTICHE GENERALI

TEKNALAST is a product born from the constant research of Tekna Chem's the laboratory technicians; it is a bi-component mortar based on a powder compound (comp. A), consisting of selected cementitious binders, fine grains mineral fillers and a liquid formulation (comp. B), consisting of a synthetic resin. By combining the two components in the appropriate proportions, it is possible to obtain a mix that is of easy process for both horizontal and vertical surfaces.

TEKNALAST:

- is absolutely waterproof (up to 1.6 atm pressure);
- it is completely waterproof to chemical attack;
- remains elastic in all environmental conditions;
- guarantees an excellent adhesion on all surfaces in concrete, masonry, ceramic and marble, even metallic, provided that they are clean of dust, friable parts, oils and fat.

FIELDS OF APPLICATION

Waterproofing and protection of concrete structures, plasters, cementitious screeds.

Waterproofing concrete tanks or canals for containing water, including drinking water.

Waterproofing of bathrooms, showers, balconies, terraces, swimming pools, etc. before the installation of ceramic coatings.

Waterproofing of walls against the ground or concrete structures to be buried.

Elastic levelling of concrete structures with thin sections even subject to small deformations under load (e.g. prefabricated panels).

Protection of plasters or concrete with cracks caused by shrinkage phenomena, against the penetration of water and aggressive agents present in the atmosphere.

Protection, against carbon dioxide penetration, of concrete walls, road and railway viaducts, and structures with insufficient thickness of iron covering.

Protection of concrete surfaces that may come into contact with sea water, de-icing salts and sulfate salts.



TECHNICAL DATA SHEET



TEKNA CHEM S.p.A.

Headquarters: Renate (MB) - Via Sirtori, z.i. 20838 - Tel. +39 0362.91.83.11

Web: www.teknachemgroup.it - E-mail: info@teknachemgroup.it - Fax: +39 0362.91.93.96



PHYSICAL PROPERTIES

Status:	Comp. A	Comp. B
Color:	powder	liquid
Ratio:	gray	white
	3	: 1
Application temperature:	from +5 to +35 °C	
Use time:	1 H	
Hardening time:	4-5 H	

METHOD OF USE

Pour the liquid component (Comp. B) into a clean, large container, then slowly add the powder compound (Comp. A), under mechanical agitation with a mechanical stirrer at low speed to prevent air from entering the mixture.

Mix thoroughly for a few minutes until completely uniform, taking care to remove the product which is not perfectly homogeneous and mixed from the walls and bottom of the container.

PERFORMANCE

Manual application: approx. 1,7 kg/m² per mm of thickness.

Mechanical application: approx. 2,2 kg/m² per mm of thickness.

PACKAGING

32 kg kit:

Component A: 24 kg bags

Component B: 8 kg tanks

Component B can also be supplied on request in 1000 kg tanks.

STORAGE

If TEKNALAST is kept in its original packaging in a dry place at temperatures between 5 and 35°C, it will keep for 12 months.

APPLICATION WARNINGS

We recommend to use TEKNALAST with the right implementation::

- to apply it within 1 h after preparation;
- to perform a zero-levelling before applying the product to thickness;
- apply it with thickness < 2 mm per coat;
- wait for the first coat to harden before applying the second layer (for thicknesses > 2mm);
- do not apply at temperatures < +5°C;
- to protect it from the weather (sun, rain and wind) for the first 24 hours after installation;
- wait at least 28 days before filling the tanks with water;
- to provide pipes every 25-30 m², for vapor-humidity escaping from the substrate (if applied for large surfaces on porous substrate);
- to wait at least 7 days before laying the ceramic tiles;
- to add a micro-net in the first layer of product and after hardening make a second layer for application to tanks, swimming pools, balconies or where there are small cracks.

Use protective gloves and goggles.

For more information see safety data sheet.



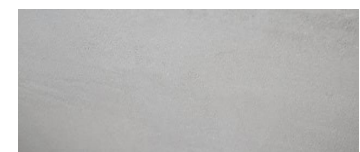
For manuale application:
use smooth spatula.



For mechanical application:
use a sprayer



First layer with micro net



Second layer as finishing





PERFORMANCE CHARACTERISTICS for 2 mm thickness			
PERFORMANCE CHARACTERISTIC	METHOD OF TEST	REQUIREMENTS ACCORDING TO EN1504-3 AND EN 1504-6 FOR MORTARS OF R4 MORTARS	PRODUCT PERFORMANCE
ADHESION ON CONCRETE - ADHESIVE BOND - DIRECT STRENGTH (support type MC 0,40 ratio w/c=0,40 according to EN 1766)	EN1542	≥ 1 MPa (in the presence of traffic) ≥ 0,5 MPa (in the absence of traffic)	> 1,10 MPa > 0,90 MPa
ADHESION ON CONCRETE - THERMAL COMPATIBILITY - FROST-FREEZE (after 50 cycles)	EN13687-1	≥ 1 MPa (in the presence of traffic) ≥ 0,5 MPa (in the absence of traffic)	> 1,10 MPa > 0,90 MPa
POSITIVE HYDRAULIC THRUST RESISTANCE	EN 12390-8		5 bar
NEGATIVE HYDRAULIC THRUST RESISTANCE	EN 8298-8		2,5 bar
CRACK BRIDGING ABILITY at -20°C	EN 1062-7	Method A,Static Method B, dynamic	Class A3 (0,5 mm) Class B3.1 (0,1-0,2 mm) freq 0,03Hz, n° > 1300 cycles
WEAR RESISTANCE, MEASURED BY WEIGHT LOSS	EN 5470-1		< 50 mg
CAPILLARY ABSORPTION and WATER PERMEABILITY (kg/m ² h ^{0,5})	EN 1062-3	< 0,1	<0,05
WATER VAPOR PERMEABILITY - EQUIVALENT AIR THICKNESS S _D (m)	EN 7783-1	Class I: SD < 5 m	Class I: SD < 5 m
CARBON DIOXIDE PERMEABILITY- EQUIVALENT AIR THICKNESS SD(m)	EN 1062-6	SD > 50 m	SD > 55 m
SLIP/SKID RESISTANCE	EN 13036-4	Class III > 55 unità	Class III > 58 unit
REACTION TO FIRE	EN 13501-1	Euroclass A1	C,S1 d0

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 in their own conditions of use and operation. We therefore decline any responsibility for the improper use of the product.



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