

EPOTEK FIX

Two-component epoxy adhesive paste, solvent-free, structural bonding and repair



DESCRIPTION

EPOTEK FIX is a two-component product, made with epoxy resins and formulated with special charges and thixotropic agents, to be used as adhesive or as plaster. EPOTEK FIX is solvent-free, it features high adhesion on any type of building material and it makes it possible to realize structural bondings. EPOTEK FIX's hardening takes place without featuring shrinking phenomena, even in harsh environmental conditions, such as the presence of moisture or water.

APPLICATION FIELDS

- Bonding of precast concrete elements;
- Anchoring of machineries, bolts, slabs, etc..;
- Joints' edges reconstruction;
- Restoration and structural reinforcement between materials of different nature (steel and concrete);
- Surface smoothing;
- Repairing of structures, in constant contact with water;
- Cracks filling and anchoring, of injectors in the EPOTEK INIEZIONE system;
- Sealing of holes, ground anchors, formwork etc..
- Smoothing and bonding in structural reinforcement cycles with carbon fibre.

FEATURES / ADVANTAGES

- Thixotropic product, with no shrinkage;
- High adhesive strength to all types of materials, ordinarily used in the building industry (concrete, natural stone, wood, brick, etc.);
- High mechanical strengths, both to compression and traction;
- Structural adhesive;
- High resistance to water, salts, hydrocarbons, aggressive acid, alkaline, salt solutions, etc..;
- Versatile use, even in harsh environmental and weather conditions.

INSTRUCTIONS FOR USE

EPOTEK FIX features a soft paste consistency and can be applied by using a spatula or a trowel. EPOTEK FIX has to be applied on both surfaces to be joined and they will then be vigorously pressed together, using clamps if needed.

TECHNICAL FEATURES

State: Thixotropic paste Specific gravity: 1.6 kg/dm3 Dry residue: 100% Colour: grey 1:1 in weight A:B ratio: Pot life (at 20°C): 60 minutes





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Complete hardening: 7 days at 20°C

Minimum application temperature:10°CCompressive strength:70 MPaFlexural strength:25 MPa

SUPPORT PREPARATION

Surfaces to be treated must be clean and free of efflorescence and non-adhering parts.

COMPONENTS PREPARATION

EPOTEK FIX consists of:

A – base compound

B - hardener

Take both A and B components and mix them together by using a spatula, a low-speed drill, or a suitable mixer, until a homogeneous mixture is obtained. Do not take partial quantities from the bag, in order to avoid making mistakes in the ratio, which may cause an improper hardening.

YIELD

1.6 kg/m² per mm thickness

PACKAGING AND STORAGE

EPOTEK FIX is available in the following packages:

kg (A+B) = 1+1 = 2 kg

kg (A+B) = 5+5 = 10 kg

kg (A+B) = 10+10 = 20 kg

kg (A+B) = 20+20 = 40 kg

If stored in its original properly sealed package, in a sheltered and dry place, at a temperature of at least 10°C, the product preserves its features for a year.

SPECIFICATION ITEM

When choosing the structural adhesive, particular attention to mechanical strengths, thixotropicity, absence of shrinkage and durability must be paid. These features can be found in EPOTEK FIX, thixotropic, structural adhesive, which can be applied on concrete, iron, wooden surfaces etc. in order to obtain a perfect structural bonding between various elements.

The product has to ensure great resistance to water, oils, fuels and aggressive acid, alkaline and salt solutions and it can be applied even in the presence of moisture. EPOTEK FIX must be used according to the manufacturer's TEKNA CHEM recommendations, which will provide technical assistance upon request.

PRECAUTIONS / WARNINGS

Use rubber gloves and protective glasses while working and while cleaning the tools.

If temperature goes under 10°C an increase in the resin's viscosity and lumps formation might occur. In this case heat the sealed package before you use it, by immersing the bucket in hot water, until lumps disappear.

LEGAL NOTICE

The information contained in this technical data sheet, even though it represents the most advanced stage of knowledge, does not exempt the user from running accurate preliminary tests under their own conditions of use and operation. We therefore decline any responsibility for the improper use of the product.







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Characteristics	Testing method	Requirements UNI EN 1504-4	Product's performance
Application temperature			+5°C - +40°C
Mixing ratio A:B (in weight and volume)			1:1
Pot life (A+B)	EN ISO 9514	Declared value	at 10°C : 180 min at 20°C : 120 min at 30°C : 60 min
Volumic mass (A+B)	EN 1183-1	Declared value	$1.60 \pm 0.03 \text{ kg/dm}^3$

Prestazioni			
Adherence to steel by direct traction	EN 1542		≥ 18 N/mm ²
Adherence to concrete by direct traction	EN 1542		≥ 3 N/mm² concrete breaking
Shear adhesion on inclined plane	EN 12188	≥ 12 N/mm²	50° inclination > 55 MPa 60° inclination > 60 MPa 70° inclination > 70 MPa
Compressive strength	EN 12190	≥ 30	> 70 MPa
Flexural-tensile strength	EN ISO 178		> 25 N/mm ²
Shear strength	EN 12615	≥6	> 20 N/mm ² concrete breaking
Breaking by separation (direct-drive)	EN 12188	≥ 14 N/mm²	> 15 N/mm²
Compressive modulus of elasticity	EN 13412	≥ 2000 N/mm ²	> 2080 N/mm ²
Glass transition temperature	EN 12614	≥ 40°C	>54°C
Thermal expansion coefficient	EN 1770	≤ 100x10 ⁻⁶ per °C	<75x10 ⁻⁶ per °C
Durability, calculated as adherence after thermal and humidity cycles	EN 13733	Test passing	Test passed – concrete breaking
Calculation of the electrical resistance	EN 1081		≥ 50*10 ⁹ Ω
Linear shrinkage	EN 12617-1	≤ 0.1%	< 0.022%
Reaction to fire	EN 13501-1	Euroclass	B s2 d0