Technical Datasheet

EPOMAX-EK

Two-component epoxy putty

Description

EPOMAX-EK is a two-component epoxy system without solvents, offering very strong adhesion to the substrate, high hardness and mechanical strength. It is significantly resistant to acids, alkalis, detergents, sea water and temperature variations.
Certified according to EN 1504-4 and classified as a structural bonding agent for mortar or concrete. Certificate No.: 2032-CPR-10.11. CE marked.

Fields of application

EPOMAX-EK is used to restore damages on concrete and cement mortars. Also suitable for reinforcement anchoring, as well as sealing cracks that will be repaired with EPOMAX-L10, EPOMAX-L20 or DUREBOND epoxy injection resins. It bonds concrete, iron, stone, wood, etc.

Technical data

Basis:	two-component epoxy resin
A-component color:	white
B-component color:	black
A+B color:	grey
Form:	paste
A-component density:	1.82 ± 0.03 kg/l
B-component density:	1.73 ± 0.11 kg/l
A+B density:	1.81 ± 0.05 kg/l
Mixing ratio (A+B):	100:22 by weight
Pot life:	approx. 25 min at +20^{0}C
Minimum hardening temperature:	+8^{0}C
Walkability:	after 16 hours at +23^{0}C
Final strength:	after 7 days at +23^{0}C

Adhesion for hardened concrete to hardened concrete and for fresh concrete to hardened concrete: Pass (fracture in the concrete)
(EN 12636)

Shear adhesion strength for hardened concrete to hardened concrete: (EN 12615)	8.1 N/mm^2
Compressive strength: (EN 12190)	≥ 70.0 N/mm^2
Shrinkage: (EN 12671-1)	0.05%
Workability: (EN ISO 9514)	25 minutes at +20°C
Sensitivity to water: (EN 12636)	Passes
Modulus of elasticity in compression: (EN 13412)	11,700 N/mm^2
Coefficient of thermal expansion: (EN 1770)	31 X 10^{-6}
Glass transition temperature: (EN 12614)	≥ 75 °C
Reaction to fire: (EN 13501-1)	Euroclass E
Durability: (EN 13733)	Pass*

**The compressive shear load at failure after exposure to thermal cycling shall not be less than the lowest tensile strength of the bonded or the original concrete.*

Flexural strength: (DIN EN 196-1)	≥ 35.0 N/mm^2

Cleaning of tools:
Tools should be cleaned with SM-25 solvent or water, immediately after use.

EPOMAX-EK

Directions for use

1. Substrate preparation
The application surface should be:
- Dry and durable.
- Free of materials that might impair bonding, e.g. dust, grease, loose particles, etc.

2. Mixing of the components
Components A (resin) and B (hardener) are packed in two separate containers, having the correct predetermined mixing ratio by weight. Thoroughly mix the whole quantity of comp. A with the whole quantity of comp. B, until a uniform grey mixture is obtained. The components should be mixed for about 5 minutes, using an appropriate hand tool (e.g. small trowel). It is important to thoroughly stir the mixture near the sides and bottom of the container to achieve uniform dispersion of the hardener.

3. Application - Consumption
EPOMAX-EK is applied by trowel on a dry, clean surface.
Consumption: Approx.1.85 kg/m^2/mm of layer thickness.

Packaging

EPOMAX-EK is supplied in packages (A+B) of 1 kg and 4 kg, with components A and B having a fixed proportion by weight.

Shelf life – Storage

12 months from production date if stored in original sealed packaging, in areas protected from humidity and direct sunlight. Recommended storage temperature between +5°C and +35°C.

Remarks

- 24 hours after cracks are sealed with EPOMAX-EK and once the product has hardened, epoxy injection resins EPOMAX-L10, EPOMAX-L20 or DUREBOND may be used.
- The workability of epoxy materials is affected by temperature. The ideal temperature of application is between +15°C and +25°C, for which the product obtains optimal workability and curing time. Room temperature below +15°C will expand the curing time, while temperatures above +30°C will reduce it. It is recommended to mildly preheat the product in the winter, and store the product in a cool room before application in the summer.
- After hardening, EPOMAX-EK is totally safe for health.
- Please consult the safety instructions written on the packaging before use.
- EPOMAX-EK is intended for professional use only.

Volatile Organic Compounds (VOCs)

According to Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory g, type SB is 350 g/l (2010) for the ready-to-use product.
The ready-to-use product EPOMAX-EK contains a maximum of 350 g/l VOC.

EPOMAX-EK

CE

2032

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2032-CPR-10.11

EN 1504-4

DoP No:EPOMAX-EK/1804-02

Structural bonding product for bonded mortar or concrete for uses other than low performance requirements

Adhesion: Fracture to concrete

Shear Strength: ≥ 6.0 N/mm^2

Compressive strength: ≥ 30.0 N/mm^2

Shrinkage/expansion: ≤ 0.1%

Workability: 25 minutes at +20 °C

Sensitivity to water: pass

Modulus of elasticity: ≥ 2,000 N/mm^2

Coefficient of thermal expansion: ≤ 100 X 10^{-6} per K

Glass transition temperature: ≥ 40 °C

Reaction to fire: Euroclass E

Durability: Pass

Dangerous substances: comply with 5.4

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