Technical Datasheet

EPOMAX-PL

Two-component, epoxy adhesive paste for composite plates

Description

EPOMAX-PL is a two-component epoxy system in pasty form. After hardening, it provides strong adhesion to the substrate, high hardness and increased compressive and flexural strength.
Certified according to EN 1504-4 and classified as a structural bonding agent for external reinforcement of concrete. CE marked. Certificate No. 2032-CPR-10.11.

Fields of application

EPOMAX-PL is used for bonding carbon plates while structurally strengthening construction elements with fiber-reinforced polymer systems (F.R.P.). Furthermore, it is used for the adhesion of the waterproofing tape JOINT TAPE FPO 250.

Technical data

Base:	two-component epoxy resin
A-component color:	white
B-component color:	black
A+B color:	light grey
Form:	paste
A-component density:	1.64 ± 0.02 kg/l
B-component density:	1.72 ± 0.10 kg/l
A+B density:	1.66 ± 0.04 kg/l
Viscosity:	300.000±100.000 mPa·s at +23°C
Mixing ratio (A+B):	100:20 by weight
Pot life:	approx. 45 min at +20°C
Minimum hardening temperature:	+8°C
Final strength:	after 7 days at +20°C
Tensile adhesion strength between steel plates: (EN 12188)	17.7 N/mm^2
Shear adhesion strength between steel prisms: (EN 12188)	14.4 N/mm^2
Shrinkage: (EN 12671-1)	0.05%
Workability: (EN ISO 9514)	40 min at +20°C
Modulus of elasticity in compression: (EN 13412)	6.200 N/mm^2
Coefficient of thermal expansion: (EN 1770)	37 X 10^{-6}
Glass transition temperature: (EN 12614)	≥ 70°C
Reaction to fire: (EN 13501-1)	Euroclass E
Durability: (EN 13733)	Pass
Tensile strength: (ASTM D 638)	20.6 MPa
Compressive strength: (ASTM D 695)	≥ 70.0 MPa
Flexural strength: (ASTM D 790)	≥ 35.0 MPa
Modulus of elasticity: (flexural) (ASTM D 790)	6.400 MPa
Adhesion:	> 3 N/mm^2 (breaking point of concrete)

Cleaning of tools:
Tools should be cleaned with SM-27 solvent, immediately after use.

Directions for use

1. Substrate preparation
The substrate must be:

- Dry and sufficiently strong and stable.
- Free of materials that might impair bonding, e.g. dust, loose particles, grease or oil, etc.

It is recommended that the substrate be mechanically treated by sandblasting or milling and cleaned with a high-suction vacuum cleaner, before application.

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If there are cracks in the concrete, they have to be repaired by resin injection using materials like EPOMAX-L10, EPOMAX-L20 or DUREBOND.
The substrate should be as flat as possible. Surface imperfections are repaired using MEGACRET-40 fiber-reinforced cement-mortar or EPOMAX-EK epoxy paste.

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

3. Application – Consumption
After removing the plate sticker, EPOMAX-PL is applied on the plate surface with a trowel. Then, the carbon plates are placed and pressed with a plastic roller on the dry and clean surface, so that the paste starts overflowing from the edges and there is no air entrapped between the paste and the concrete surface. The total thickness of EPOMAX-PL, after being pressed with the trowel, should be between 0.5-2.0 mm.
Consumption: 1.6-1.7 kg/m²/mm of layer thickness.

Packaging

EPOMAX-PL is supplied in containers (A+B) of 5 kg, with components A and B having a fixed mixing ratio 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

- 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-PL is totally safe for health.
- Please consult the safety instructions written on the packaging before use.
- EPOMAX-PL is intended for professional use only.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 03.02.2026

EPOMAX-PL

CE

2032

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2032-CPR-10.11

EN 1504-4

DoP No:EPOMAX-PL/1263-02

Structural bonding product for bonded plate reinforcement for uses other than low performance requirements

Adhesion: Pull off strength ≥ 14 N/mm^2

Slant shear strength at:

50° ≥ 50 N/mm^2

60° ≥ 60 N/mm^2

70° ≥ 70 N/mm^2

Shear Strength: ≥12 N/mm^2

Shrinkage expansion: ≤ 0.1%

Workability: 40 minutes at +20°C

Modulus of elasticity: ≥ 2000 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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