

Three-component, thixotropic epoxy mortar

Description

EPOMAX-CMT is a thixotropic mortar for walls and floors, based on cement and water-based epoxy resins. It offers the following advantages:

- Simplified and affordable application.
- High early and final mechanical strength.
- Superior bonding to the substrate.
- High vapor permeability.
- Non-corrosive (safe for the steel reinforcement).

It is classified as a PCC R4 repairing mortar for concrete, according to EN 1504-3.

Fields of application

EPOMAX-CMT is used for:

- repairing,
- smoothing and
- leveling

of concrete walls and floors that will be covered with:

- epoxy coatings
- polyurethane coatings
- plastic floorings,
- carpet,
- wooden parquet etc.

It is also applied when concrete is relatively fresh, in order to create the proper substrate - of at least 2 mm thickness- for the application of epoxy layers, to avoid problems of detachment etc.

Also, it is appropriate as a final layer, at a thickness of up to 3 mm, for smoothing, leveling and increasing surface resistance to mechanical loads in corrosive environments.

Technical data

Chemical basis (A+B):	two-component epoxy resin
Chemical basis (C):	cementitious powder
Color (A+B+C):	grey
Density A:	1.05 ± 0.03 kg/l
Density B:	1.00 ± 0.02 kg/l
Bulk density of C:	1.40 ± 0.10 kg/l
Bulk density (A+B+C):	2.00 ± 0.10 kg/l
Mixing ratio (A:B:C):	1 : 2.6 : 16 by weight
Pot life:	approx. 40 min at +20°C
Minimum hardening temperature:	+8°C
Water-vapor diffusion coefficient: (EN ISO 7783-1/2)	Sd = 0.88
Walkability:	after 15 hours at +23°C
Successive layer:	after 48 hours at +23°C
Final strength:	after 28 days at +23°C
Compressive strength: (EN 12190)	≥45 N/mm ²
Flexural strength: (EN 13892-2)	≥8 N/mm ²
Elastic modulus: (EN 13412)	21.2 GPa
Chloride ion content: (EN 1015-17)	0.00 %
Adhesion: (EN 1542)	>3 N/mm ²
Adhesion after 50 freeze-thaw cycles):	≥ 3.00 N/mm ² (EN 13687-1)

Capillary water absorption: (EN 13057)	$\leq 0.1 \text{ kg}\cdot\text{m}^{-2}\cdot\text{h}^{-0.5}$
Reaction to fire: (EN 13501-1)	Euroclass F
Carbonation resistance: (EN 13295)	Pass
Maximum layer thickness:	3 mm

Directions for use

1. Substrate preparation

The surfaces to be treated must be:

- Stable and slightly wet, without standing water.
- Clean, free of materials that prevent bonding, such as dust, loose particles, grease, etc.

Also, the following requirements must be met:

Concrete quality:	at least C20/25
Cement screed quality:	cement content at least 350 kg/m ²

EPOMAX-CMT may be applied on relatively fresh concrete. However, the concrete should be at least 3 days old, in order to avoid cracks, due to concrete shrinkage.

Before applying EPOMAX-CMT, the surface has to be sprayed with water, until saturation is reached.

2. Mixing of EPOMAX-CMT

Components A, B and C are packaged in predetermined mixing proportions.

At first, component A must be stirred well in its container. Then, it should be put in a clean vessel of approx. 30 lit. Subsequently, the whole quantity of component B should be added to component A. The two components should be mixed for approx. 30 seconds, with a low-speed mixer (300 rpm). It is important to stir the mixture thoroughly near the sides and

bottom of the container, to achieve uniform dispersion of the hardener.

Finally, component C is added under continuous stirring. Mixing is done with a low-speed mixer and should go on, until the mixture becomes completely uniform (approx. for 3 minutes). No water should be added in the mixture.

3. Application procedure

EPOMAX-CMT should be applied in a thickness of up to 3 mm with a trowel or spatula.

Cleaning the tools:

Tools must be thoroughly cleaned with water, immediately after use. Hardened material can only be mechanically removed.

Consumption

Approx. 2 kg/m²/mm of layer thickness.

Packaging

EPOMAX-CMT is available in 25 kg packaging (A+B+C) in the following proportions:

Component A:	1.3 kg.
Component B:	3.3 kg.
Component C:	20.4 kg.

Shelf-life - Storage

Shelf-life in sealed containers and bags is 12 months, in places protected from moisture and frost.

Remarks

- Working time of epoxy systems decreases when ambient temperature rises.
- The surface of EPOMAX-CMT after the application should be protected from moisture for 24 hours. Moisture may whiten the surface or/and make it sticky. It may also disturb hardening. Faded or sticky layers in parts of the surface should

EPOMAX-CMT



be removed by grinding or milling and laid again.

- In case that longer time than predicted interferes between the application of successive layers or in case that old floors are going to be laid again, the surface should be thoroughly cleaned and ground before applying the new layer. After hardening, EPOMAX-CMT is totally safe for health.
- Before using the material, consult the directions and safety precautions written on the product's label.



2032

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EN 1504-3

Concrete repair product for structural repair PCC mortar (based on hydraulic cement, polymer modified)

DoP No.: EPOMAX-CMT/1254-01

Compressive strength: class R4

Chloride ion content: $\leq 0.05\%$

Adhesion: ≥ 2.0 MPa

Carbonation resistance: Passes

Elastic modulus: ≥ 20 GPa

Thermal compatibility part 1: ≥ 2.0 MPa

Capillary absorption: $\leq 0.5 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$

Dangerous substances: comply with 5.4

Reaction to fire: Euroclass F

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