

DUROFLOOR-CMT

Three-component, self-leveling, solvent-free epoxy flooring

Description

DUROFLOOR-CMT is a pourable, self-leveling flooring based on cement and epoxy resins, without solvents. It offers the following advantages:

- Simple and affordable application.
- High early and final mechanical strength.
- Superior adhesion to the substrate.
- High vapor permeability.
- Exceptional self-leveling capacity.
- No corrosion action (safe for steel reinforcement).

Certified according to EN 13813 and classified as a CT-C50-F10-AR0.5 screed material. CE marked.

Fields of application

DUROFLOOR-CMT is used for:

- repairing,
- smoothing, and
- leveling

concrete floors to be covered with:

- epoxy floorings (DUROFLOOR)
- polyurethane floorings
- 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 final flooring, at a thickness of up to 3 mm, for smoothing, leveling and increasing surface resistance to mechanical loads.

Technical data

Chemical base (A+B): 2-component epoxy resin

Chemical base (C): cementitious powder

Color (A+B+C): grey

Density A: 1.096 kg/l

Density B: 1.025 kg/l

Bulk density of C:	1.39 kg/l
Bulk density (A+B+C):	2.06 kg/l
Mixing ratio (A:B:C):	1 : 2.6 : 16.5 by weight
Pot life:	approx. 20 min at +20°C
Minimum hardening temperature:	+8°C
Water-vapor diffusion coefficient: (EN ISO 7783-1/2)	Sd = 0.75
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 13892-2)	60 N/mm ²
Flexural strength: (EN 13892-2)	15 N/mm ²
Abrasion resistance: (EN 13892-4, BCA)	16 µm, AR 0.5
Adhesive strength:	> 3 N/mm ² (breaking point of concrete)
Elastic modulus:	22 GPa
Maximum layer thickness:	3 mm

Directions for use

1. Substrate

The surfaces to be treated must be:

- Stable and dry or 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/m²

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For very absorbent or porous substrates, the surface should be first primed with the water-based epoxy primer EPOXYPRIMER-500, as it is or diluted 30% with water by weight. The primer is applied by brush or roller in one layer. Primer consumption: 200-300 g/m².

The application of DUROFLOOR-CMT follows after the primer can be walked on. (Approximately 6 hours later, depending on the temperature and humidity of the application area).

2. Mixing of DUROFLOOR-CMT

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

At first, component A must be stirred well in its container and then should be moved to a clean vessel of approx. 30 l volume. Subsequently the entire contents of component B should be added to component A. Mixing of the two components should carry on for approx. 30 seconds, with a low-revolution 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, the component C is added under continuous stirring. Mixing is done with a low-revolution mixer and is carried on until the mixture becomes completely uniform (approx. for 3 minutes). No water should be added in the mixture.

3. Application procedure

DUROFLOOR-CMT should be applied at a thickness of up to 3 mm by using a notched trowel. Alternatively a large rubber trowel (squeegee) or a metal trowel can be used as well.

In order to release air trapped into the self-leveling layer, the surface must be rolled over with a special spiked roller.

This prevents formation of bubbles and helps to achieve a uniform thickness.

Cleaning of tools:

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

Consumption

Approx. 2.1 kg/m²/mm of layer thickness.

Packaging

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

Component A: 1.24 kg.

Component B: 3.23 kg.

Component C: 20.52 kg.

Shelf life – Storage

12 months in sealed containers and bags, in a cool and dry place.

Remarks

- Working time of epoxy systems decreases when ambient temperature rises.
- The surface of DUROFLOOR-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 be removed by grinding or milling and laid again.
- In case recoat time is longer than expected old floors are to be laid again, the surface should be thoroughly cleaned and ground before application of the new layer.
- After hardening, DUROFLOOR-CMT is totally safe for health.
- Please consult the directions for safe use and precautions written on the packaging before use.

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EN 13813 CT-C50-F10-AR0,5

Cementitious screed material for use internally
in buildings

Reaction to fire: F

Release of corrosive substances: CT

Water permeability: NPD

Water vapour permeability: NPD

Compressive strength: C50

Flexural strength: F10

Wear resistance: AR0,5

Sound insulation: NPD

Sound absorption: NPD

Thermal resistance: NPD

Chemical resistance: NPD

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