

DUROFLOOR-BI

Two-component, colorless epoxy impregnation

Description

DUROFLOOR-BI is a two-component, colorless epoxy system with solvents. Due to its low viscosity and its great fluidity, it can penetrate deep into the substrate and fill pores and hairline cracks. The impregnated surfaces become stable and durable, resistant to abrasion, frost and chemicals, especially to waste, mineral oils and petroleum products. Certified according to EN 13813 and classified as SR-B2,0. CE marked.

Fields of application

DUROFLOOR-BI is used for the impregnation of cement-based substrates, e.g. old and new concrete, cement screeds or plaster, etc. Suitable for floors in car parks, warehouses, laboratories, industries, gas stations, auto repair shops, etc. Also used as a primer for EPOXYCOAT, EPOXYCOAT-VSF and EPOXYCOAT-S epoxy coatings.

Technical data

Basis:	two-component epoxy resin
Color:	transparent
Viscosity:	45 mPa·s at +23°C
Density (A+B):	0.92 kg/l
Mixing ratio (A:B):	100:29 by weight
Pot life:	approx. 10 h at +20°C
Minimum hardening temperature:	+8°C
Walkability:	after 24 h at +23°C
Recoat time:	after 10-24 h at +23°C
Final strength:	after 7 days at +23°C
Adhesive strength:	> 3 N/mm ² (breaking point of concrete)

Cleaning of tools:

Tools should be thoroughly cleaned with SM-12 special solvent immediately after use.

Directions for use

1. Substrate preparation

The flooring surface should be:

- Dry and stable.
- Free of materials that prevent bonding, e.g. dust, loose particles, grease, etc.
- Protected from negative water pressure.

Also it should meet the following requirements:

Concrete quality:	at least C20/25
Cement screed quality:	cement content 350 kg/m ³
Age:	at least 28 days
Moisture content:	less than 4%

According to the nature of the substrate, it should be prepared by brushing, grinding and cleaning with a high suction vacuum cleaner etc.

2. Mixing of the components

Components A (resin) and B (hardener) are packaged in two separate containers with the correct predetermined mixing ratio by weight. The whole quantity of component B is added to component A. The two components should then be mixed for about 5 minutes 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.

3. Application – Consumption

DUROFLOOR-BI is applied by roller, brush or spray in one or two layers, depending on the absorbency of the substrate. The second layer is applied 15 min after the first one. Consumption: 150-250 g/m²/layer.

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DUROFLOOR-BI may be applied on new concrete (approx. 3 days old) because curing is not disturbed. It may also be applied on slightly wet substrates (moisture content up to 6%). In both cases a small impregnation depth is achieved.

If a depth of impregnation of about 5 mm into concrete is required, moisture content should be less than 3%.

Packaging

DUROFLOOR-BI is supplied in buckets (A+B) of 4 kg and 10 kg, with components A and B having a specified mixing ratio by weight.

Shelf life – Storage

12 months from production date if stored in original, unopened packaging, in cool and dry conditions. 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 during winter, and store the product in a cool room before application during summer.
- DUROFLOOR-BI contains solvents. In case of application in confined spaces, measures for good ventilation should be taken.
- Non-uniform absorbency of the substrate may cause a non-uniform surface appearance after impregnation.

- Bonding between successive layers may be severely affected by the intervention of moisture or dirt between them.
- Epoxy layers should be protected from moisture for 4-6 hours after application. Moisture may whiten the surface or/and make it sticky. It may also hinder hardening. Faded or sticky layers in parts of the surface should be removed by grinding or milling and then laid again.
- In case recoat time (between successive layers) is longer than predicted or in case old floors are to be overlaid again, the surface should be thoroughly cleaned and ground before applying the new layer.
- After hardening, DUROFLOOR-BI is totally safe for health.
- Please consult the safety instructions written on the packaging before use.

Volatile Organic Compounds (VOCs)

According to Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type SB is 750 g/l (2010) for the ready-to-use product. The ready-to-use product DUROFLOOR-BI contains a maximum of 750 g/l VOC.

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EN 13813 SR-B2,0

Primer

DoP No.: DUROFLOOR-BI/1821-01

Reaction to fire: NPD

Release of corrosive substances: SR

Water permeability: NPD

Wear resistance: NPD

Adhesion: B2,0

Impact resistance: NPD

Sound insulation: NPD

Sound absorption: NPD

Thermal resistance: NPD

Chemical resistance: NPD

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