Technical Datasheet

EPOXYCOAT

Two-component epoxy coating

Description

EPOXYCOAT is a two-component, colored epoxy system with solvents, offering high strength and abrasion resistance. It is resistant to acids, alkalis, petroleum products, water and seawater.
Certified according to EN 1504-2 and classified as a coating for surface protection of concrete. Certificate No.: 2032-CPR-10.11. CE marked.

Fields of application

EPOXYCOAT is used as a protective and decorative coating on cement-based substrates (e.g. concrete, plaster, cement screeds, etc.) and metal surfaces. Suitable for industrial units, laboratories, slaughterhouses, canned food factories, tunnels, wine factories, gas stations, car repair shops, etc.

Technical data

Base:	2-component epoxy resin
Colors:	RAL 9016 (traffic white) RAL 7040 (window grey) other colors on order
Viscosity:	3,000 ± 500 mPa.s at +23°C
Density:	1.47 kg/l
Mixing ratio (A:B):	100:11 by weight
Pot life:	approx. 90 min at +20°C
Volume solids:	~ 80%
Gloss level: (EN ISO 2813: < 60 at 60°)	10, Satin
Minimum hardening temperature:	+8°C
Walkability:	after 24 h at +23°C
Recoat time:	after 24 h at +23°C
Final strength:	after 7 days at +23°C
Abrasion resistance: (EN ISO 5470-1)	< 3,000 mg
Capillary absorption and permeability to water: (EN 1062-3, requirement of EN 1504-2: w < 0.1)	0.01 kg/m^2·h$^{0.5}$
Resistance to thermal shock: (EN 13687-5)	a) No bubbles, cracks or delamination b) Pull-off test: ≥ 2 N/mm^2
Impact resistance: (EN ISO 6272-1)	5 Nm (Class I)
Adhesion strength by pull off test: (EN 1542)	> 3 N/mm^2 (breaking point of concrete)
Reaction to fire: (EN 13501-1)	Euroclass F

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

Directions for use

1. Substrate
The surface to be coated should be:

- Dry and stable.
- Free of materials that might impair bonding, e.g. dust, loose particles, grease, etc.
- Protected from underneath moisture attack.

Also, it should meet the following requirements:

a) Cementitious substrates

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%

b) Iron or steel substrates
Should be free of rust or any dirt that prevents bonding. Depending on the nature of the substrate, it should be treated by brushing, grinding, sandblasting, shot blasting, water blasting, etc. Following this, the surface should be cleaned from dust with a high-suction vacuum cleaner.

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2. Priming

a) Cementitious substrates

Cement-based surfaces are primed with DUROFLOOR-BI epoxy impregnation in one layer or EPOXYCOAT diluted (10-15% by weight) with SM-27 special solvent.
Consumption of DUROFLOOR-BI: ~ 150 g/m^2.

b) Metal substrates

Metal substrates are primed using EPOXYCOAT-AC anti-corrosion epoxy coating in one or two coats.
Consumption: 150-200 g/m^2/coat.

3. Mixing of EPOXYCOAT

Components A (resin) and B (hardener) are packaged in two separate containers, at the correct predetermined mixing ratio by weight. Before mixing, component A is stirred mechanically for 1 min. Then, all of component B is added to component A and the two components are mixed continuously for about 5 min with a low-speed mixer (300 rpm) until a uniform mix is obtained. It is important to thoroughly stir the mixture near the sides and bottom of the container to achieve uniform dispersion of the hardener. To ensure thorough mixing, the mixture is poured into a clean container and mixed again for at least 1 min until fully homogeneous.

4. Application - Consumption

EPOXYCOAT should be applied within 24 hours from priming and after the primer has dried.
EPOXYCOAT is used as is or diluted up to 5% by weight with SM-27 special solvent. It is applied by roller, brush, or spray in at least 2 coats. The second coat should be applied after the first one has dried but within 24 hours.
Consumption: 200-300 g/m^2/coat.

Packaging

EPOXYCOAT is supplied in containers (A+B) of 8 kg, with components A and B delivered in separate containers with fixed mixing ratio.

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 their temperature. The ideal temperature of application is between +15°C and +25°C so that the product will be easy to use and cure as prescribed. Room temperature below +15°C will extend the curing time and temperature above +30°C will accelerate the curing time. In winter time a mild preheating of the product is recommended, while in summer time to store the materials in a cool room before application.
- EPOXYCOAT contains solvents. For indoor applications, measures for good ventilation should be taken.
- Bonding between successive layers may be severely affected by moisture or dirt present between them.
- Epoxy coats should be protected from moisture for 4-6 hours after application. 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 shot blasting and laid again.
- In case recoat time is longer than expected or old floors are to be overlaid again, the surface should be thoroughly cleaned and ground before applying the new coat.
- After hardening, EPOXYCOAT is totally safe for health.
- Consult the directions for safe use and precautions 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 j, type SB, is 500 g/l (2010) for the ready-to-use product.
The ready-to-use product EPOXYCOAT contains max. 200 g/l VOC.

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CE

2032

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EN 1504-2

Surface protection products

Coating

DoP No.: EPOXYCOAT/1814-01

Abrasion resistance: < 3,000 mg

Capillary absorption: w < 0.1 kg/m^2·h$^{0.5}$

Resistance to thermal shock: ≥ 2.0 N/mm^2

Impact resistance: Class I

Adhesion: ≥ 3.0 N/mm^2

Reaction to fire: Euroclass F

Dangerous substances comply with 5.3

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