Technical leaflet

EPOXYCOAT-S

Two-component epoxy coating

Description

EPOXYCOAT-S is a two-component, colored epoxy system with solvents, offering high hardness and abrasion resistance. It is resistant to acids, alkalis, petroleum products, solvents, water, sea water, etc.
It is certified with the CE marking and classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPR-10.11.

Fields of application

EPOXYCOAT-S is used as a protective and decorative coating on cement-based substrates, e.g. concrete, plaster, cement-mortars or screeds, as well as on metal surfaces. It is suitable for industrial areas, laboratories, slaughter-houses, canned food factories, wine making factories, gas stations, car repair shops etc.
It is especially suitable for painting of swimming pools.

Technical data

Basis:	two-component epoxy resin
Colors:	RAL 9003 (white) blue for swimming pools other colors by special order
Viscosity:	4,000 ± 500 mPa·s at +23^{0}C
Density:	1.34 kg/l
Mixing ratio (A:B):	100:20 by weight
Pot life:	approx. 80 min at +20^{0}C
Minimum hardening temperature:	+8^{0}C
Walkability:	after 24 h at +23^{0}C
Successive layer:	after 24 h at +23^{0}C
Final strength:	after 7 days at +23^{0}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, rigid systems, at 70°C):	No bubbles, cracks or delamination Pull-off test ≥ 2 N/mm^2
Impact resistance: (EN ISO 6272-1)	6 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-12 solvent immediately after use.

Directions for use

1. Substrate preparation
The surface to be coated should be:

- Dry and stable.
- Free of materials that prevent 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:	< 4%

b) Iron or steel substrates
They should be free of rust or any dirt that prevents bonding.

According to the nature of the substrate, it should be prepared by brushing, grinding, milling, sandblasting, water blasting, shot blasting etc. Following this, the surface should be cleaned from dust with a high-suction vacuum cleaner.

2. Priming

a) Cementitious substrates
Cement-based surfaces are primed with DUROFLOOR-BI epoxy impregnation in one layer or EPOXYCOAT-S diluted (10-20% by weight) with SM-14 special solvent.
Consumption of DUROFLOOR-BI: approx. 150 g/m^2.

b) Metal substrates
Metal substrates are primed with EPOXYCOAT-AC anti-corrosive epoxy coating in 2 layers.
Consumption: 150-200 g/m^2/layer.

3. Mixing of components

Components A (resin) and B (hardener) are packed in two separate containers, at the correct predetermined mixing proportion by weight. The whole quantity of component B is added into component A. The 2 components should be mixed for about 5 minutes, with a low speed mixer (300 rpm). It is important to stir thoroughly the mixture near the sides and bottom of the container, to achieve uniform dispersion of the hardener.

4. Application - Consumption

EPOXYCOAT-S should be applied within 24 hours from priming and after the primer has dried.
EPOXYCOAT-S is used as it is or diluted up to 5% by weight with SM-14 special solvent. It is applied by roller, brush or spray in 2 layers minimum. The second layer may be applied after the first one has dried, but within 24 hours.
Consumption: 200-300 g/m^2/layer.

Packaging

EPOXYCOAT-S is supplied in packages (A+B) of 2 kg and 9.6 kg, with components A and B at a fixed weight proportion.

Shelf-life - Storage

12 months from production date, if stored in original sealed packaging, in areas protected from humidity and direct sun exposure. 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.
- EPOXYCOAT-S contains solvents. In case of application in closed rooms, measures for good ventilation should be taken.
- Bonding between successive layers may be severely affected by the intervention moisture or dirt.
- 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 disturb hardening. Faded or sticky layers in parts of the surface should be removed by grinding or milling and laid again.

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- In case the time between the application of successive layers is longer than predicted or in case old floors are going to be overlaid, the surface should be thoroughly cleaned and ground before applying the new layer.
- After hardening, EPOXYCOAT-S is totally safe for health.
- Before application, consult the directions for safe use and precautions written on the package.

Volatile Organic Compounds (VOCs)

According to the 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-S contains a maximum of 500 g/l VOC.

CE

2032

ISOMAT S.A.
17th km Thessaloniki – Ag. Athanasios
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

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EN 1504-2

Surface protection products
Coating

DoP No.: EPOXYCOAT-S/1822-01

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 5.4

ISOMAT S.A.
BUILDING CHEMICALS AND MORTARS
MAIN OFFICES - FACTORY:
17th km Thessaloniki - Ag. Athanasios Road,
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece,
Tel.: +30 2310 576 000, Fax: +30 2310 722 475
www.isomat.eu e-mail: info@isomat.eu