

EPOXYCOAT-W

Two-component, water-based epoxy coating

Description

EPOXYCOAT-W is a two-component, colored, water-based epoxy system offering high strength and abrasion resistance. It is resistant to acids, alkalis, petroleum products, water and sea water. It is ideal for indoor applications and, in general, in cases where solvents are undesirable. Certified according to EN 1504-2 and classified as a coating for surface protection of concrete. CE marked.

Fields of application

EPOXYCOAT-W is used as a protective and decorative coating on cement-based substrates, e.g. concrete, plaster, screeds, and metal surfaces. It is suitable for industrial rooms, laboratories, slaughterhouses, canned food factories, tunnels, wine factories, gas stations, car repair shops, etc. It is also suitable for food contact surfaces according to W-347, EPA 330.5 and EPA 110.2.

Technical data

Basis:	2-component epoxy resin
Colors:	RAL 7035 (light grey) RAL 1015 (beige), other colors upon order
Viscosity:	4,200 mPa.s at + 23°C
Density:	1.32 kg/l
Mixing ratio (A:B):	100:23 by weight
Pot life:	approx. 90 min at + 20°C
Minimum hardening temperature:	+ 8°C
Walkability:	after 24 h at + 23°C
Overcoat time:	after 8 h to 48 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, rigid systems, at 70°C):	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)
Permeability to CO ₂ : (EN 1062-6)	Sd > 200 m
Reaction to fire: (EN 13501-1)	Euroclass B-s1,d0*

* Report No.: 20/23451-1854, APPLUS Laboratories, Spain, October 2020.

Cleaning of tools:
Tools should be cleaned with water, 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/m³

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, 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 using EPOXYCOAT-W diluted with water up to 20% by weight.

Consumption of EPOXYCOAT-W: ~ 150 g/m².

b) Metal substrates

Metallic substrates are primed using EPOXYCOAT-AC anti-corrosive epoxy coating in one or two layers.

Consumption EPOXYCOAT-AC: ~ 150 g/m²/layer.

3. Mixing of EPOXYCOAT-W

Components A (resin) and B (hardener) are packaged in two separate containers, having the correct fixed mixing ratio by weight. The entire contents of component B is added to component A. Mixing of the 2 components should take place for about 5 minutes, using 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.

4. Application - Consumption

EPOXYCOAT-W should be applied within 48 hours after priming and after the primer has dried.

It is applied by roller, brush or spray in 2 layers minimum.

The first layer of EPOXYCOAT-W is used as it is or diluted with water up to 10% by weight.

The second coat follows after drying of the first, but within 48 hours.

Consumption: 150-250 g/m²/layer.

Packaging

EPOXYCOAT-W is supplied in containers (A+B) of 3 kg and 9 kg, with components A and B delivered in pre-weighed containers with fixed mixing ratio.

Shelf life – Storage

12 months from production date if stored in original, unopened packaging, in temperature between +5°C and +35°C. Protect from direct sunlight and frost.

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 the application.
- Bonding between successive layers may be severely affected by moisture or dirt present between them.
- In case the waiting time between the applications of 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.
- Consult the safety instructions written on the packaging before use.
- EPOXYCOAT-W is intended for professional use only.

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 WB is 140 g/l (2010) for the ready to use product.

The ready to use product EPOXYCOAT-W contains max 140 g/l VOC.

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2032

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EN 1504-2

Surface protection products

Coating

Abrasion resistance: < 3000 mg

Capillary absorption: $w < 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}$

Resistance to thermal shock: $\geq 2,0 \text{ N/mm}^2$

Impact resistance: Class I

Adhesion strength: $\geq 2,0 \text{ N/mm}^2$

Reaction to fire: Euroclass B-s1,d0

Dangerous substances comply with 5.3

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BUILDING CHEMICALS AND MORTARS

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