

DUROCRET-DECO EPOXY

Three-component, decorative, cement-epoxy screed for floors and walls

Description

DUROCRET-DECO EPOXY is a three-component, cement-epoxy product, suitable for both indoor and outdoor applications on floors and walls. Advantages:

- Excellent abrasion and mechanical resistance.
- Resistance to household chemicals.
- Very strong adhesion to the substrate.
- Very good workability.
- Smooth final surface.
- Exceptional aesthetic result.
- No need for reinforcement with enhancing resins.

Certified according to EN 13813 and classified as a CT-C50-F10-AR0.5 floor coating material.

Fields of application

DUROCRET-DECO EPOXY is used in a large number of indoor and outdoor applications, such as stairs, floors, walls, swimming pools in residential and public applications. Suitable for high traffic surfaces in commercial shops, exhibition centers, shopping malls, restaurants, hotels, etc., as well as special structures, such as built-in furniture, sanitary ware (washbasins, showers, etc.). Selected for its highly aesthetic design in various applications (e.g. Cycladic architecture).

Technical data

Chemical base (A+B):	2-component epoxy resin
Chemical base (C):	cementitious powder
Color (A+B+C):	white, grey
Density of component A:	1.11 ± 0.02 kg/l
Density of component B:	1.00 ± 0.02 kg/l
Bulk density of component C:	1.02 ± 0.05 kg/l

Bulk density (A+B+C):	1.9 ± 0.1 kg/l
Mixing ratio (A:B:C):	1: 4.24: 13.81 w/w
Pot life:	about 90 min at +20°C
Minimum hardening temperature:	+8°C
Coating:	after 24h at +23°C
Final strength:	after 28 days at +23°C
Compressive strength: (EN 13892-2)	≥ 50 N/mm ²
Flexural strength: (EN 13892-2)	≥ 10 N/mm ²
Abrasion resistance: (EN 13892-4, BCA)	≤ 50 µm, AR 0.5
Adhesion strength:	> 3 N/mm ² (concrete breaking)
Capillary water absorption: (EN 13057)	≤ 0.20 kg·m ⁻² ·h ^{-0.5}
Maximum application thickness	3 mm/layer
Reaction to fire:	Euroclass F

Directions for use

1. Substrate preparation

The substrate must be free from dust, grease, loose materials, etc. Any defects in the substrate, such as cracks, cavities, etc., must be repaired with suitable materials.

Absorbent surfaces, such as concrete, concrete mortar, plaster, gypsum board, are previously primed with FLEX-PRIMER. Non-absorbent surfaces, such as old tile layers or mosaic, are previously primed with ISOMAT SUPERGRUND. Alternatively, the two-component, water-based epoxy primer EPOXYPRIMER-500 may be used.

DUROCRET-DECO EPOXY

2. Mixing of DUROCRET-DECO EPOXY

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

Vigorously shake the pot containing component A and then add to the original 32 l packaging. Then, pour all of component B into component A. Mix the two components for about 30" using a low speed mixer (300 rpm). Make sure to properly reach the walls and bottom of the container while stirring, in order to obtain a homogeneous mixture.

Finally, add component C and keep stirring with a low speed mixer for approximately 3 minutes. Do not add water.

3. Application of DUROCRET-DECO EPOXY

Apply the material on the substrate using a notched trowel. Place a 160 g/m² ISOMAT reinforcing fiberglass mesh on the "combed" surface of DUROCRET-DECO EPOXY and then embed with the smooth side of the trowel to form a relatively even surface. Alternatively, use DUROCRET-DECO FLEX as a base coat. After 24 hours, prime the hardened surface of DUROCRET-DECO EPOXY with FLEX-PRIMER and then apply a second, thin (~1mm) layer of DUROCRET-DECO EPOXY. A third or more layers may be applied, if necessary, in order to achieve the desired aesthetic finish. Two-three days after the application and provided that the surface has dried, apply the protective varnish.

4. Application of varnish

Protect the decorative cement screed using the polyurethane, solvent-based varnish VARNISH-PU 2K (gloss or satin), or the polyurethane, water-based varnish VARNISH-PU 2KW (satin-matt). The water-based varnish is ideal for interior, poorly ventilated spaces, as it is practically odorless.

VARNISH-PU 2K and VARNISH-PU 2KW are applied with a roller in two layers. The second layer is applied 4-24 hours after the first, provided that it has sufficiently dried up. Consumption: 70-120 g/m² per layer.

For better spreading, soak the roller in the varnish, drain it in the paint tray and apply it on the surface.

VARNISH-PU 2K (gloss or satin) usually darkens the surface. If this is not desired, use a combination of two varnishes in the following way:

First, apply the acrylic, water-based varnish VS-W diluted with water in a mixing ratio of 1:1, in one layer at a consumption of 150-200 ml/m².

After 24 hours, apply the polyurethane two-component varnish VARNISH PU-2K (gloss or satin) in 2 layers. The second layer is applied 4-24 hours after the first, provided that it has sufficiently dried.

The use of VS-W prevents the intense darkening of the surface of the decorative cement screed, which can be caused by VARNISH-PU 2K.

Consumption

Approx. 1.2 kg/m²/layer

Packaging

DUROCRET-DECO EPOXY is available in 20 kg packagings (A+B+C) in the following mixing ratios:

Component A: 1.05 kg.

Component B: 4.45 kg.

Component C: 14.5 kg.

Shelf life – Storage

12 months from production date in closed pots and bags, stored in cool and dry areas protected from moisture and sun exposure. Recommended storage temperature: +5°C to +35°C.

DUROCRET-DECO EPOXY

Remarks

- Temperature during application: +5°C to +30°C.
- Due to cement content, the product reacts with water, forming an alkaline solution. Classified as irritant.
- Please consult the safety instructions written on the packaging before use.
- The processing time of epoxy systems is reduced as temperature increases.

Volatile Organic Compounds (VOCs)

According to Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory I, type WB is 200 g/l (2010) for the ready-to-use product. The ready-to-use product DUROCRET DECO EPOXY contains a maximum of 200 g/l VOC.



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17

EN 13813

EN 13813 CT-C50-F10-AR0,5

Cementitious screed material for use internally
in buildings
DoP No.: DUROCRET-DECO EPOXY/1273-01

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

ISOMAT S.A.

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