

DUROCRET-DECO

Decorative microcement coating for floors and walls

Description

DUROCRET-DECO is a premixed, polymer-modified, fiber-reinforced, decorative microcement coating, without corrosive ingredients, suitable for indoor and outdoor applications, on floors and walls, offering:

- Abrasion resistance.
- Very good bonding to the substrate.
- Water-repellency.
- A special aesthetic result.

Certified according to EN 1504-3 and classified as a PCC R2 mortar for concrete repairs. CE marked.

Fields of application

DUROCRET-DECO is used both internally and externally, in numerous applications, such as stairs, floors, walls, as well as wherever a special aesthetic result is desired (e.g. Cycladic architecture). Also used in houses, stores, hotels etc. and special constructions, such as built-in beds, built-in sanitary ware (washbasins, showers etc.).

Technical data

Form:	cementitious powder
Colors:	ready-mixed colors: white, grey, light grey & many more with ISOMAT DECO COLOR pigments
Pot life:	2 h at +20°C
Water demand:	5.50 l/25 kg bag
Bulk density of dry mortar:	1.45 ± 0.10 kg/l
Bulk density of fresh mortar:	1.80 ± 0.10 kg/l
Compressive strength:	≥ 22.0 N/mm ²
Flexural strength:	≥ 6.0 N/mm ²
Chloride ion content:	0.00 %
Adhesion:	≥ 1.3 N/mm ²
Thermal compatibility Part 1 (50 freeze-thaw cycles):	≥ 1.2 N/mm ²
Application thickness:	2-10 mm per layer

Capillary water absorption:	0.34 kg·m ⁻² ·h ^{-0.5}
Reaction to fire:	Euroclass A1

Directions for use

1. Substrate preparation

The substrate should be clean, free of dust, oil or grease, loose materials, etc. Any cavities such as cracks or holes in the substrate should be properly filled.

Before applying DUROCRET-DECO on absorbent substrates, such as masonry, concrete, plaster, gypsum board, they should be first primed with the acrylic primer UNI-PRIMER in 1-2 layers, depending on the absorbency of the substrate. DUROCRET-DECO is applied after 2-3 hours, depending on the weather conditions, provided that the primer has sufficiently dried.

Non-absorbent substrates, such as old tile layers or terrazzo, should be primed with ISOMAT SUPERGRUND primer. DUROCRET-DECO may be applied after 24 hours, as long as the primer has completely dried.

2. Application

On walls:

DUROCRET-DECO is gradually added to water under continuous stirring, until a mixture of the desired workability is formed. The product is applied with a 10mm notched trowel. A 160g/m² reinforcing fiberglass mesh is installed on the "combed" surface of DUROCRET-DECO, which is then embedded with the smooth side of the trowel, forming a relatively even surface.

Twenty-four hours later, the hardened surface of DUROCRET-DECO is primed with the acrylic primer UNI-PRIMER.

While the primer is still fresh (fresh on fresh), DUROCRET-DECO or DUROCRET-DECO FINISH is applied in a thin layer (1-2mm) in any desired color, in order to form the desired style of the microcement coating.

For application on walls made of gypsum boards or cement boards, it is necessary to add ADIFLEX-B to DUROCRET-DECO in the ratio 1-2kg to 25kg to enhance its properties.

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On floors:

The application is the same as the one on walls - the only difference is that ADIFLEX-B elastifying agent should be added to the mixture, in the ratio of 1-2kg to 25kg of DUROCRET-DECO. In that case, the amount of mixing water should be reduced to as low a level as necessary for the mixture to acquire the desirable workability.

Alternatively, DUROCRET-DECO FLEX, the flexible decorative microcement coating that does not need to be enhanced with resin, may be used instead of DUROCRET-DECO.

One or two days after the application - provided that the surface is dry - the protective varnishes may be applied.

Coloring DUROCRET-DECO

DUROCRET-DECO is available in three ready-mixed colors (white, grey, light grey). It can also be colored with ISOMAT DECO COLOR high-quality inorganic pigments.

ISOMAT DECO COLOR pigments are available in 11 colors and can be combined giving an unlimited number of colors.

In order to achieve better mixing, the pigment should be dissolved into the mixing water, before the mortar is added.

It is also possible to add the pigment after the mortar has been mixed with the water, but in that case, it should be thoroughly mixed, in order to achieve even coloring of the mortar.

In large-scale applications, it is preferred to first dissolve the pigment into the water.

In addition, it is recommended that the mortar to be colored should be white, so that the final shade is more easily obtained, especially if a light color has been selected.

In case more than 10 dosages of 50g are required, you are advised to contact ISOMAT's Technical Support Department.

Application of the varnish:

The microcement coating is protected with the application of the polyurethane, solvent-based varnish VARNISH-PU 2K (gloss or satin) or the polyurethane, water-based varnish VARNISH-PU 2KW (satin-mat).

The water-based varnish is ideal for interior, poorly ventilated spaces, as it is almost odorless. VARNISH-PU 2K and VARNISH-PU 2KW are applied with a roller in two layers. The second layer is applied 4-24 h after the first one, as long as it has sufficiently dried.

Consumption: 70-120g/m² per layer.

For better distribution of the varnish, it is recommended to dunk the roller in the varnish until it is soaked, then drain it in the paint tray and apply it on the surface.

VARNISH-PU 2K (gloss or satin) generally darkens the surface. In case this is not desirable, it is recommended to combine two varnishes in the following way:

First, the acrylic, water-based varnish VS-W is applied diluted with water (1:1), in one layer at a consumption of 150-200ml/m².

After 24 hours, the polyurethane varnish VARNISH PU-2K (gloss or satin) is applied in 2 layers. The second layer is applied 4-24 h after the first one, as long as it has sufficiently dried.

The use of VS-W prevents intense darkening of the surface of the microcement coating, caused by VARNISH-PU 2K. Also, the use of VS-W can significantly improve the final surface appearance of the microcement when used diluted with water in the ratio 1:1, in one layer, prior to the application of VARNISH PU-2KW water-based varnish.

Consumption

Approx. 1.5kg/m²/mm of layer thickness.

Packaging

25kg bags.

Shelf life – Storage

12 months from production date, if stored in original, unopened packaging, in places protected from moisture and frost.

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Remarks

- Instead of UNI-PRIMER, FLEX-PRIMER may be used.
- Temperature during the application should be between +5°C and +30°C.
- In the summer, it is recommended to take the proper measures in order to protect DUROCRET-DECO from water loss, due to high temperatures.
- The product contains cement, which reacts with water, forming alkaline solutions, thus is classified as irritant.
- Consult the safety instructions written on the packaging before use.



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EN 1504-3

Concrete repair product for non-structural repair
PCC mortar (based on hydraulic cement, polymer modified)

DoP No.: DUROCRET-DECO/1200-02

Compressive strength: class R2

Chloride ion content: $\leq 0.05\%$

Adhesion: ≥ 0.8 MPa

Thermal compatibility part 1: ≥ 0.8 MPa

Capillary absorption: $0.5 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$

Dangerous substances: comply with 5.4

Reaction to fire: Euroclass A1

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BUILDING CHEMICALS AND MORTARS

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