

DUROCRET-DECO

Decorative microcement coating for walls

Description

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

- Abrasion resistance
- Excellent adhesion 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 including 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-made 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 to 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 SUPERGRUND. DUROCRET-DECO is applied after 24 hours, as long as the primer has completely dried.

2. Application

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 10 mm notched trowel. A 160 g/m² reinforcing fiberglass mesh is placed on the "combed" surface of DUROCRET-DECO and 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 (1-2 mm) in any desired color, forming 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 (1-2 kg per 25 kg) to enhance its properties.

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Floors

The application process is the same as that followed on wall surfaces with only one difference; ADIFLEX-B elastifying agent must be added to the mixture (1-2 kg per 25 kg of DUROCRET-DECO). In this case, the amount of the mixing water should be reduced to as low a level as necessary for the mixture to obtain the desired workability.

Alternatively, DUROCRET-DECO FLEX, the flexible decorative microcement coating that does not need to be enhanced with resins, 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 of DUROCRET-DECO

DUROCRET-DECO is available in three ready-made 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 10 colors and can be combined giving an unlimited number of colors.

For better mixing, the pigment should be dissolved into the mixing water prior to the addition of the mortar.

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 to ensure color consistency throughout mortar mix.

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

In addition, the final color, especially if a light one is selected, will be more easily obtained if the mortar to be colored is white.

In case more than 10 doses of 50 g are required per 25 kg of DUROCRET-DECO, you are advised to contact ISOMAT 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-matt).

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: 70-120 g/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 desired, 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 with a consumption of 150-200 ml/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 the intense darkening of the microcement surface 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 1:1, in one layer, prior to the application of VARNISH PU-2KW water-based varnish.

Consumption

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

Packaging

25 kg 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 summer months, it is recommended to take the proper measures 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 directions for safe use and precautions 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: ≤ 0.05%

Adhesion: ≥ 0.8 MPa

Thermal compatibility part 1: ≥ 0.8 MPa

Capillary absorption: 0.5 kg·m⁻²·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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