

# DUROCRET-DECO FLEX

## Flexible microcement coating for surface finishing on floors and walls

### Description

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

- Great abrasion and mechanical resistance.
- Very good bonding to the substrate.
- Flexibility and resistance to contraction-expansion, as well as vibration.
- A special aesthetic result.
- No need to be reinforced with enhancing resins.

It is classified as a PCC R3 mortar for concrete repairs, according to EN 1504-3, and as a CT-C30-F7-AR2 cementitious screed material, according to EN 13813.

### Fields of application

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

Its flexibility renders it suitable for applications demanding elasticity, such as substrates made of gypsum board or cement board, floors with in-floor heating, attics, metal surfaces, floors subject to heavy traffic, old tile layers, outdoor spaces, like balconies and terraces.

### Technical data

Form:	cementitious powder
Color:	Ready-mixed colors: white, grey, light grey light ocher, mocha, crocus - 96

recommended colors,  
with a lot more,  
produced with DECO  
COLOR pigments

Pot Life:	2 h at +20°C
Water demand:	5.0-5.2 l/25 kg bag
Bulk density of dry mortar:	1.35 ± 0.10 kg/l
Bulk density of fresh mortar:	1.90 ± 0.10 kg/l
Compressive strength:	≥ 30.0 N/mm <sup>2</sup>
Flexural strength:	≥ 7.0 N/mm <sup>2</sup>
Chloride ion content:	0.00 %
Adhesion:	≥ 1.9 N/mm <sup>2</sup>
Thermal compatibility	
Part 1 (50 freeze-thaw cycles):	≥ 1.9 N/mm <sup>2</sup>
Elastic modulus:	≥ 15 GPa
Resistance to carbonation:	Pass
Abrasion resistance:	AR 2
Application thickness:	2-5 mm per layer
Capillary water absorption:	0.30 kg·m <sup>-2</sup> ·h <sup>-0.5</sup>
Reaction to fire:	Euroclass F

### Directions for use

#### 1. Substrate preparation

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

Before applying DUROCRET-DECO FLEX on absorbent substrates, such as masonry, concrete, plaster or gypsum board, they should be first primed with the acrylic primer UNI-PRIMER or FLEX-PRIMER in 1-2 layers, depending on the absorptivity of the substrate. DUROCRET-DECO FLEX 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 mosaic, should be primed with

# DUROCRET-DECO FLEX

ISOMAT SUPERGRUND primer. DUROCRET - DECO FLEX may be applied after 24 hours, as long as the primer has completely dried.

## 2. Application

DUROCRET-DECO FLEX 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/m<sup>2</sup> reinforcing fiberglass mesh is installed on the 'combed' surface of DUROCRET-DECO FLEX, 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 FLEX is primed with the acrylic primer UNI-PRIMER or FLEX-PRIMER, and while the primer is still fresh (fresh on fresh), DUROCRET-DECO FLEX or DUROCRET-DECO FINISH is applied in a thin layer (1.5 mm) in any desired color, in order to form the desired style of the microcement coating.

Two-three days after the application is complete, the protective varnishes may be applied, provided that the substrate is dry.

## Coloring DUROCRET-DECO FLEX

DUROCRET-DECO FLEX is available in 6 ready-mixed colors (white, grey, light grey, light ocher, mocha, crocus). It may also be colored with DECO COLOR high-quality inorganic pigments.

DECO COLOR pigments are available in 10 colors and may be combined to achieve an unlimited number of colors. There are 96 combinations indicatively recommended and presented in DECO COLOR SYSTEM, with a lot more potential tones available to the end user.

In order to achieve better mixing, the pigment should be dissolved in 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 suggested 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 50 g are required, you are advised to contact ISOMAT's Technical Support Department.

## Application of varnishes:

The microcement coating is protected with the application of VARNISH-PU 2K polyurethane, solvent-based varnish (gloss or mat) or VARNISH-PU 2KW water-based, polyurethane varnish (satin). The water-based varnish is ideal for interior, poorly ventilated spaces, as it is almost odorless.

The varnishes VARNISH-PU 2K and VARNISH-PU 2KW are applied by brush in two layers. The second layer is applied 4-24 hours after the first one, as long as it has sufficiently dried. Consumption: 70-120 g/m<sup>2</sup> 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 mat) generally darkens the surface. In case that is not desirable, it is suggested to combine two varnishes in the following way:

First, the acrylic, water-based varnish VS-W is applied in one layer at a consumption of 150-200 ml/m<sup>2</sup>.

After 24 hours, the two-component, polyurethane varnish VARNISH PU-2K (gloss or mat) is applied in 2 layers. The second

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layer is applied 4-24 hours 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.

## Consumption

Approx. 1.5 kg/m<sup>2</sup>/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.

## Remarks

- Temperature during 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 FLEX 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 package.

# DUROCRET-DECO FLEX


<b>2032</b>
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<b>15</b>
<b>2032-CPR-10.11</b>
EN 1504-3
Concrete repair product for non structural repair PCC mortar (based on hydraulic cement, polymer modified)
DoP No.: DUROCRET-DECO FLEX /1266.1504-01
Compressive strength: class R2
Chloride ion content: $\leq 0.05\%$
Adhesion: $\geq 1.5$ MPa
Carbonation resistance: Pass
Elastic modulus: $\geq 15$ GPa
Thermal compatibility part 1: $\geq 1.5$ MPa
Capillary absorption: $\leq 0.5 \text{ kg}\cdot\text{m}^{-2}\cdot\text{h}^{-0.5}$
Dangerous substances: comply with 5.4
Reaction to fire: Euroclass F


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<b>15</b>
<b>EN 13813 CT-C30-F7-AR2</b>
DoP No.: DUROCRET-DECO FLEX/1266.13813-01
Cementitious screed material for use internally in buildings
Reaction to fire: F
Release of corrosive substances: CT
Water permeability : NPD
Water vapor permeability: NPD
Compressive strength: C30
Flexural strength: F7
Wear resistance: AR 2
Sound insulation: NPD
Sound absorption: NPD
Thermal resistance: NPD
Chemical resistance: NPD

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