

## Microcement coating for surface finishing on floors and walls

### Description

DUROCRET-DECO is a pre-mixed, polymer-modified, fiber-reinforced 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.

It is classified as a PCC R2 mortar for concrete repairs, according to EN 1504-3.

### 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:	white, grey, light grey, light
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 <sup>2</sup>
Flexural strength:	≥ 6.0 N/mm <sup>2</sup>
Chloride ion content:	0.00 %
Adhesion:	≥ 1.3 N/mm <sup>2</sup>
Thermal compatibility Part 1 (50 freeze-thaw cycles):	≥ 1.2 N/mm <sup>2</sup>
Application thickness:	2-10 mm per layer

Capillary water absorption: 0.34 kg·m<sup>-2</sup>·h<sup>-0.5</sup>

Reaction to fire: Euroclass A1

### 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 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 absorptivity 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 mosaic, should be primed with the primer ISOMAT SUPERGRUND. 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 10 mm notched trowel. A 160 g/m<sup>2</sup> 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 (1-2 mm) in any desired color, in order to form the desired style of the microcement coating.

## On floors:

The application is the same as the one on walls - the only difference is that ADIFLEX-B building resin should be added in the mixture, in a quantity of 1-2 kg per 25 kg of DUROCRET-DECO. In that case, the mixing water should be reduced, as much as is necessary in order for the mixture to acquire the desirable workability.

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

On walls made of gypsum board or cement board, DUROCRET-DECO will have to be reinforced with ADIFLEX-B.

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 3 ready-mixed colors (white, grey, light grey). 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 avoid uneven coloring of the mortar.

## 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 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 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 150-200 ml/m<sup>2</sup>.

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

# DUROCRET-DECO



## Remarks

- Instead of UNI-PRIMER, FLEX-PRIMER or ADIFLEX-B resin diluted with water (1:2) 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 directions for safe use and precautions written on the package.



### ISOMAT S.A.

17<sup>th</sup> km Thessaloniki – Ag. Athanasios  
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece

12

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:  $\geq 0.8$  MPa

Thermal compatibility part 1:  $\geq 0.8$  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

### ISOMAT S.A.

BUILDING CHEMICALS AND MORTARS

**Thessaloniki:** 17th km Thessaloniki - Ag. Athanasios

P.O. BOX 1043, 570 03 Ag. Athanasios

Tel.: 2310 576 000 Fax: 2310 722 475

**Athens:** 57th km Athens-Lamia National Road, 32011 Inofita

Tel.: 22620 56 406 Fax: 22620 31 644

[www.isomat.eu](http://www.isomat.eu) e-mail: [info@isomat.eu](mailto:info@isomat.eu)

