Technical Datasheet

DUROCRET-DECO FLEX

Flexible decorative microcement coating for floors, walls and built-in furniture

Description

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

- Great abrasion and mechanical resistance.
- Excellent adhesion to the substrate.
- Flexibility and resistance to expansion/ contraction and vibration.
- A special aesthetic result.
- No need to be enhanced with resins.

Certified according to EN 1504-3 and EN 13813, classified as a PCC R3 mortar for concrete repair and as a CT-C30-F7-AR2 cementitious screed material, respectively. CE marked.
DUROCRET-DECO FLEX has received an Environmental Product Declaration (EPD) following an assessment of its life-cycle environmental impacts. Registration No: EPD-IES-0006172, The International EPD® System.

Fields of application

DUROCRET-DECO FLEX is used in numerous indoor and outdoor applications on floors, walls, stairwells, and special constructions such as built-in sanitary ware (washbasins, showers, etc.) and built-in furniture (beds, counters, tables, etc.). For use in houses, stores, hotels or wherever a special aesthetic result is desired, e.g. Cycladic architecture.
Suitable for applications requiring resistance to vibration, such as substrates made of gypsum boards, cement boards, heated floors, heavy-traffic floors, old tile layers, balconies, flat roofs, etc.

Technical data

Form:	cementitious powder
Color:	ready-mixed colors: white, grey, light grey & more with ISOMAT DECO-COLOR pigments
Pot life:	2 h at +20ºC
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^2
Flexural strength:	≥ 7.0 N/mm^2
Chloride ion content:	0.00 %
Adhesion:	≥ 1.9 N/mm^2
Thermal compatibility Part 1 (50 freeze-thaw cycles):	≥ 1.9 N/mm^2
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^{-2}·h$^{-0.5}$
Reaction to fire:	A2-s1, d0

Directions for use

1. Substrate preparation
The substrate should be clean, free of dust, oily or loose material, etc. Any cavities such as cracks or holes in the substrate should be properly filled.
Before applying DUROCRET-DECO FLEX to 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 absorbency 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 terrazzo should be primed with SUPERGRUND. DUROCRET-DECO FLEX may be applied 24 h later 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^2 reinforcing fiberglass mesh is placed on the “combed” surface of DUROCRET-DECO FLEX, which is then embedded with the smooth side of the trowel, forming a relatively even surface.

DUROCRET-DECO FLEX

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, to form the desired style of the microcement coating.
Two-three days after the application is complete, the protective varnish may be applied, provided that the substrate is dry.

Coloring of DUROCRET-DECO FLEX
DUROCRET-DECO FLEX 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 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 FLEX, you are advised to contact ISOMAT Technical Support Department.

Application of varnishes
The microcement coating is protected with the application of VARNISH-PU 2K polyurethane solvent-based varnish (gloss or satin) or VARNISH-PU 2KW water-based polyurethane varnish (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 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^2 per layer.

For better distribution of the varnish, it is recommended to dunk the roller in the varnish until 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 apply two varnishes in the following way:
First, the acrylic water-based varnish VS-W is applied in one layer, with a consumption of 150-200 ml/m^2. After 24 hours, the two-component, 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 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 VARNISH PU-2KW application.

Consumption

Approx. 1.5 kg/m^2/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 +5ºC and +30ºC.
- During the summer months, DUROCRET-DECO FINISH must be protected from water loss caused 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.

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Research and Development Department of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 30.01.2026

DUROCRET-DECO FLEX

CE

2032

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2032-CPR-10.11

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 R3

Chloride ion content: ≤ 0.05%

Adhesive bond: ≥ 1.5 MPa

Carbonation resistance: Pass

Elastic modulus: ≥15 GPa

Thermal compatibility part 1: ≥ 1.5 MPa

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

Dangerous substances: comply with 5.4

Reaction to fire: Euroclass A2-s1, d0

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EN 13813 CT-C30-F7-AR2

DoP No.: DUROCRET-DECO FLEX/ 1266.13813-01

Cementitious screed material for use internally in buildings

Reaction to fire: Euroclass A2-s1, d0

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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