DECOR SUPERIOR
MICROCEMENT COATING
3-component – EPOXY MODIFIED

CT-C50-F10 ACCORDING TO **EN 13813**

DESCRIPTION

DECOR microcement coating is a 3-component resin-modified, high strength mortar, enhanced with synthetic additives and aggregates that, when mixed with epoxy resins (components A and B) and **THRAKON** liquid pigments, can be used in existing and new floors and walls, thus providing a multitude of different shades. It is suitable for indoor and outdoor surfaces.

It creates the traditional Cycladic style with water formations. The product is highly resistant to abrasion and chemicals and offers a very smooth final surface and exceptional adhesion on the substrate. It is also highly resistant to hydrostatic pressure and ideal for applications in big swimming pools. It is applied on solid and properly primed substrate. It can be combined with 160gr/m^2 **CLIMAPLUS** fibreglass mesh.

APPLICATION FIELDS

Suitable for indoor and outdoor applications, horizontal or vertical surfaces of concrete, plaster, gypsum boards, cement boards and other substrates after the appropriate preparation. It is ideal for special structures, such as benches, beds, washbasins, swimming pools, showers, window-boxes, stairs, underfloor heating, fireplaces (outdoors), etc. In preserved buildings, hotels, houses, restaurants, cafes and night clubs.

ADVANTAGES-CHARACTERISTICS

- Suitable for indoor and outdoor applications, on horizontal and vertical surfaces.
- Excellent particle size distribution and exceptionally smooth surface.
- Wide range of shades.
- Strong adhesion on the substrate.
- Used in underfloor heating.
- Excellent workability
- High durability – Quick application
- High resistance to swimming pool chemicals
- CE certified according to the European Standard EN 13813.
- Suitable for permanent presence of water in tanks and swimming pools.

SURFACE PREPARATION

The substrate should be levelled, free from loose particles and foreign bodies, free of grease and oils. Any detached parts of plaster should be repaired with **WRM 550**. Any existing cracks on the substrate of the cement mortar should be repaired with injections of epoxy resins with two components:

- **EPOSHILED INJECT W** for cracks >3mm wide or
- **EPOSHILED INJECT S** for cracks 0.1-3mm wide.

in combination, while for as long as the epoxy resin is still fresh, with dusting of quartz sand of a mixture of **QZS 700 No 1** & **No2** with a ratio: QZS 700 No 1: QZS 700 No 1 = 1.5:1. Before the application of DÉCOR SUPERIOR and depending on the application and the form of the substrate, the below preparation is followed:

- Absorbent substrates, such as plaster, cement mortar, seamless and industrial cement flooring should be primed with **GLX 292 FLEX PRIM**.
- In case the above absorbent substrates are outdoors, apply exclusively 2 crosswise layers of the brushable waterproofing mortar **DSF 353 SUPERELASTIC**, 2-3mm thick with fiberglass mesh.
- On substrates situated in damp areas and are continuously affected by moisture and/or hydrostatic pressure, apply the brushable waterproofing **DSF 363 FIBERELASTIC**, 3-4mm thick (3-4 crosswise layers).
- Non-absorbent surfaces or on surfaces of low absorbability, such as cement boards, gypsum boards, ceramic tales, marble or mosaic floors should be primed with **GLX 190** or apply the brushable waterproofing **DSF 363 FIBERELASTIC** (2 criss-cross layers).
- In case the above non-absorbent surfaces are outdoors, apply exclusively 2 crosswise layers of brushable waterproofing **DSF 363 FIBERELASTIC.**
- In special wooden or metal structures (e.g. furniture, benches, etc.) the application of a layer of **DSF 363 FIBERELASTIC** with a minimum thickness of 2mm together with the use of fiberglass mesh (2 crosswise layers) is recommended.
- Loose absorbent substrates, which should be deeply hardened, should be primed with the highly infusing solvent-based primer **STATUS DUR**.

METHOD OF PREPARATION-APPLICATION

In a clean container add the components A (1kg) + B (1kg) and stir well. Then add the pigment, after you have previously added some water to the container. Stir the liquid mixture to homogenize and then, while stirring, add the mortar of 17kg and fill with the necessary quantity of water (2.5-3 kg) until uniform slurry without lumps is formed. Let the mixture rest for 3 minutes, stir again and use. Apply the product by combing the substrate with a notched trowel in 1-3mm thickness. Once the material starts to dry apply a second layer using a flat trowel and if required by the application apply a third one or more (provided that there hasn't been preceded varnish application) until you achieve the desired effect or shade. Once the material hardens it can be sanded, if desired, by using suitable sandpaper in order to achieve a smoother final surface.

48 hours after the application the product should be covered with a suitable protective varnish from **THRAKON** range (depending on application) for sealing the surface. For application in thickness greater than 3mm, on substrates that will be imposed to high loads, are subject to shocks and vibrations or on cracked substrates it is recommended to apply fiberglass mesh (CLIMAPLUS - 160g/m^2) embedded in the first layer of the application of the microcement coating. Avoid mixing different batches in the same area (possibility of a different shade) and avoid mixing with sand, gypsum, cement, resins or other binders. When the mixture has started to set and it is no workable anymore, it must be rejected.

EXPANSION JOINTS

The application of expansion joints depends on the use of the application surface, its location and the quality of the substrate. If expansion joints exist in the substrate they should not be covered by the microcement system, as it may lead to crack formation. This applies to both indoor and outdoor expansion joints.
The use of perimeter expansion joints is recommended for indoor applications and for every 25m^2 for outdoor.

As an overall rule for indoor applications, the maximum application surface without expansion joints should not exceed 8-10 m, while outdoors the length should not exceed 6-7 meters. The sealing of the expansion joints of the **DECOR** system can be carried out with covering profiles or with suitable **THRAKON** sealants **(BACKER ROD, ELASTO PU / ELASTO PU FLEX).**

PACKAGING – STORAGE

The microcement coating **DECOR SUPERIOR 3K** is packed in 17kg containers (component A: 1kg, component B: 1kg and component C: 15kg). All components are included in the same package. They are stored on wooden pallets in dry places, at temperatures higher than 0°C for up to 12 months after the date of production.

CLEANING OF TOOLS

Immediately after the use, allow the varnish to trickle inside the can and clean all the tools with hot water and soap. Do not pour the washing liquids on the ground.

FINAL SURFACE PROTECTION

Priming: After at least 48 hours from the application of **DECOR** proceed with the preparation of the microcement coating so that it can receive the protective varnish. However, increased attention is required, especially during the winter months to make sure that the material has dried thoroughly and all moisture has completely been removed from its mass. The rule is to wait 1 day/mm layer thickness. In this step, we apply the **DECOR PRIM** primer, in order to achieve the stabilization of the microcement surface.

Varnish application: The last stage of the system includes the selection of the final surface protection varnish.

The choice should be made depending on the requirements and exposure conditions of microcement coating:

- **DECOR PROTECT:** water-based varnish for interior or exterior walls, walls and floors, where there is no standing water. Applied in 1-2 layers.
- **DECOR PU VARNISH:** 2-component polyurethane varnish for floors and for the most demanding applications. It provides high abrasion resistance to floors, protects from UV radiation and is suitable for permanent immersion into water (swimming pools, showers, terraces, balconies, etc.). It is applied in 1-2 layers.

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PRECAUTIONS

The product **DECOR SUPERIOR** contains cement and epoxy resins, and reacts with water. Therefore, protect the eyes, the skin and avoid inhalation. In case of contact, rinse thoroughly. In case of eye contact, seek medical advice immediately. Read the information on the label and in the Technical Sheet of the product before use. Wear suitable protective clothing and gloves. The MSDS of the product is available upon request to the professionals.

HELPFUL TIPS

- Do not apply the product:
  a) When the moisture of the substrate is > 4% and the environmental moisture is < 80%.
  b) When substrate resistance is not at least 1.0 N/mm^2.
  c) On improperly prepared surfaces (see SUBSTRATE PREPARATION).
  d) When there is frost forecast for the next 24 hours after the application of the microcement coating.
  e) On humid conditions (such as rain).
  f) On walls exposed to direct sunlight or on hot substrates.
- The application of the system should be carried out by professional teams.
- The application of the polyurethane varnish **DECOR PU VARNISH** to protect the microcement coating in areas with permanent presence of water and/or hydrostatic pressure is made in 2 layers.
- The surface on which the system will be applied must be properly prepared (repaired and primed).
- The application of **THRAKON** microcement system doesn't differ in case of underfloor heating
- In swimming pool applications, the pool should be filled with water 7 days after the application of **DECOR PU VARNISH.**

TYPE ACCORDING TO EUROPEAN STANDARD EN 13813 – CATEGORY CT – C50 – F10

TECHNICAL CHARACTERISTICS	UNITS	STANDARD	VALUE
Form			Dry powder
Color			White
Application temperature	(^{o}C)		+8 to +35
Temperature resistance	(^{o}C)		-30 to +90
Maximum grain size	(mm)		0.2
Workability time	(h)	EN 1015-9	≥2
Minimum thickness for wall application , gypsum board, cement board	(mm)		2
Minimum thickness for smooth floors	(mm)		2-3
Minimum thickness for rough floors	(mm)		4-5
Minimum thickness for old paving	(mm)		2-3
Minimum thickness for damp areas (bathrooms, swimming pools, external floors, etc.)	(mm)		3
Compressive strength	(N/mm^2)	EN 1015-11	≥50.0
Flexural strength	(N/mm^2)	EN 1015-11	≥10.0
Capillary water absorption coefficient	(kg/m^2*min$^{0.5}$)	EN 1015-18	≤ 0.20
Consumption	(Kg/m^2 for 1cm)		1.5

Note: *The measurements were taken in laboratory environment under a temperature of +23^{0}C, Relative Humidity 50 % and without ventilation. They may vary depending on the conditions prevailing at the worksite, such as temperature, humidity, ventilation and absorbability of the substrate.*