

## Specification & Technical Data Sheet

# MicroCrete®

## Cementitious Microcement Surfacing System

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### Product Description

MicroCrete a multi layer polymer modified cement-based coating system suitable for both domestic and commercial environments. MicroCrete is a decorative layer of blended layers of fine aggregates, marbles and polymers which can be applied to most surfaces (floors and walls) that have suitable stability.

MicroCrete systems offer an aesthetic concrete surface similar to that of a traditional concrete material that due to the application process' is both individual and unique.

Through pigmentation of the base products a variation of colours and finishes can be achieved.

Finishes Available: Matt, Satin & Gloss

### Appearance

Similar to that of traditional concrete, MicroCrete installations may exhibit variations in appearance, texture, shade, colour due to the nature of the project area, shape, size, site conditions, temperature and humidity at the time of application.

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## Substrate Requirements

### Concrete / Screed Substrates

Concrete or Screeds must include a mechanical damp proof membrane (DPM), be fully cured, good quality (not dusty and chalky), free from holes, voids, contamination, flat, level installed to BS EN 8204-1.

Provision for expansion should be allowed for with the addition of a 5mm tape installed at the perimeters.

Substrates must adhere to a minimum strength of 25-30 N/mm and a flexural/tensile strength 1.2 N/mm and surface regularity should be no greater than SR1 tolerance (3mm over a 2m straight edge). At the point of installation, moisture levels should not exceed 4% (tramex) or 0.5% for gypsum screeds.

All pipeworks, services (inc UFH) must be a min of 35mm below the surface.

Any in screed water underfloor heating should be commissioned before our installations to British Standards BS EN 1264 Part 4 and BS8204 Part 1 to allow the substrates be put under the necessary pressure and identify any points of weakness or stress.

### Timber Substrates

Timber substrates and those build ups over joists would normally include one layer of 18mm ply, 6-12mm dry screed boards which are cross laid, screwed and glued. The screed boards joins should receive an application of fibreglass mesh and a coverage of fibre reinforced smoothing screed at a nominal depth of 6mm that has a minimum strength of 25 N/mm, flexural/tensile strength 8.0 N/mm, flat and level to SR1 tolerances (3mm over a 2m straight edge).

At the point of the MicroCrete installation, moisture levels should not exceed 4% (tramex).

The above specifications may differ if used in conjunction with an underfloor heating (UFH) system as build ups may change depending on the system used.

## **Other Substrates**

Other substrates such as existing tiles, walls etc would be in accordance with further specifications.

## **Under Floor Heating (UFH)**

In all cases where under floor heating is present, a thermistor (temperature probe) should be installed into the screed/substrate to limit the maximum surface/floor temperature to no more than 26°C.

Floors with multiple UFH zones should have an expansion provision between to allow for free movement of the substrates.

## **External Use**

The MicroCrete systems are not suitable for external use.

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## **Product Application**

The MicroCrete products are manually applied by trowel with a total of 5-8 layers and process' to result in a finished system thickness of 2-3mm (nominal). Once applied the final body layers are sanded and finished with protected with a breathable PU (polyurethane) protective coating.

Once the final process' have been completed, the floor can be receive light traffic after 24 hours at 20°C and be protected if necessary (please request specifications).

The MicroCrete system can receive mechanical loading after 72 hours and full cure after 28 days. The protective sealants will have reached a full chemical cure after 7 days at 20°C.

## **Technical Specifications**

- Mechanical Strength (EN 1015-11)
- Compressive Strength: >25N/mm (28 Days)
- Flexural/Tensile strength: >8N/mm (28 Days)
- Adhesion to Concrete: 1.75N/mm (28 Days)
- Application Thickness: 2-3mm (Nominal) / 1mm Min - 5mm Max
- Flatness / Surface Regularity: SR2 Maximum permissible deviation
- In-Situ Crushing Resistance: 3mm (Mass of test weight: 4kg)
- Surface sealant: Two Part Water Based Polyurethane (PU)
- Floor Application Suitability: Light to medium foot traffic
- Maximum surface UFH surface temperature: 26°C