TECHNICAL DATA SHEET

MICROLITE 100

A fine-grain decorative coating for the MICROLITE system

CHARACTERISTICS

MICROLITE is a decorative and protective system for continuous surfaces.
Microlite 100 is a single-component decorative coating for indoor use, suitable for creating coloured finishes on seamless floors, with a matt spatula effect; it can also be applied vertically, making it ideal for creating continuous floor-to-wall finishes.
Microlite 100, with its high adhesion and resistance to impact and wear, is particularly recommended for achieving the finishes of the MICROLITE system.

COMPOSITION

It is formulated on an aqueous dispersion base of acrylic polymers with selected aggregates and special additives.
It does not contain hydraulic or epoxy binders.

PRODUCT PROPERTIES

	VALUE	CONDITIONS
GRANULOMETRY	Max 0.1 mm	
NATURAL APPEARANCE	Light grey paste	
SPECIFIC WEIGHT	1550 – 1750 kg/L	
HARDENING TIME	3 hours	20°C and 50% RH
COMPLETE DRYING	24 hours	20°C and 50% RH
CURING	48 hours	

STORAGE

The product has a shelf life of up to 24 months when stored in the original unopened packaging at a temperature between +5°C and +35°C, in a cool and dry place, protected from frost and direct sunlight.

COLOURS

AC16 Grey. The range of colours available may be extended to include the Microlite colour chart using the AC 16 tinting system. **AC16 Grey is not a finished product, it requires the addition of colour using the *AC16 Tinting System*.**
Please note that the colour may vary slightly from batch to batch. If you are using this product as a finishing coating, it is important to finish the same application with the same batch.

USE

Microlite 100 is used to create high-quality surfaces, both in new buildings and when renovating older structures. It can be applied either horizontally or vertically on surfaces treated with *Microlite 300* (a medium-grain decorative coating).
To increase its wear resistance, apply a double layer of the *Techcoat Pro* protective finish, a transparent water-based acrylic paint, available in the Glossy, Semi-glossy and Matt options.

TOOLS

Plastic trowel

THINNING

Ready to use

CONSUMPTION

300-400 g/m^2

APPLICATION TEMPERATURE

Do not apply to frozen surfaces or surfaces that are thawing. Do not add water during application.
Environmental and surface application conditions:
- Room temperature: Min. +10 °C / Max. +35°C.
- Surface conditions: Min. +10 °C / Max. +30°C.

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THE PAINTING SYSTEM

Surface preparation for concrete floors, screeds and typical cement-based surfaces:

Prepare the surface by removing any loose material, oils, release agents, dust, efflorescence, salt deposits, and any paint or coating that is not perfectly adherent and stable. In case of cracks or fissures, repair and seal the surface using the seaming technique (according to the UNI 10966-5 standard).

Check that the surface is sufficiently level, dry and free from rising damp (<4%). Do not apply to frozen surfaces or surfaces that are thawing. If the surface is extensive and there are expansion joints, these joints have to be made visible and sealed with a specific sealant to ensure that any structural movement is absorbed.

Make sure that newly made surfaces have completely cured according to the instructions provided by the manufacturer. If there are radiant floor screeds, before laying the Microlite system, make sure that the required tests have been performed by progressively switching on the heating system, thus stabilising the surface in order to prevent the formation of condensation or cracks (according to the UNI 1264-4 standard).

Surfaces have to be prepared by sanding with 40-grit paper or by polishing with diamond grinding discs (in this case, assess the consistency of the support), followed by dust extraction and the application of 1 coat of *Hydro Cement Block*, a transparent water-based epoxy primer (2 coats in the case of shower enclosures without tray).

If there are traces of previous installations on the wall, in order to avoid cracks in the final coating, we recommend applying a fibreglass mesh (90 g/m²) using *Hydro Cement Block* (Note: the mesh must NEVER overlap but be laid edge to edge).

Surface preparation of wall surfaces such as cement-based or lime-based plaster

Make sure that newly made surfaces have completely cured according to the instructions provided by the manufacturer. Ensure that the surface is free from cracks and any areas that are likely to flake or crumble.

Any cracks, gaps or brittle areas must be preventively treated by grouting and levelling the surface with the same type of material.

If there are traces of previous installations on the wall, in order to avoid cracks in the final coating, we recommend applying a fibreglass mesh (90 g/m²) using *Hydro Cement Block* (Note: the mesh must NEVER overlap but be laid edge to edge).

Wall/floor surface preparation with tiles, mosaic, stoneware or other similar materials:

If the product is to be applied on tiles, after a preliminary test of the adhesion to the surface, we recommend grinding the surface with diamond discs (on walls, use silicon carbide discs) and then vacuuming the dust.

On floor surfaces with very wide joints (>3mm), a layer of Hydro Cement Block, a transparent water-based epoxy primer, may be applied to the surface to ensure that the joints are covered. A 90 g/m² fibreglass mesh may also be embedded in the surface, followed by quartz sand (0.1-0.6 mm) when still fresh (Note: the mesh must NEVER overlap but be laid edge to edge). A surface prepared in this way supports the application of the Microlite system by creating a uniform and even surface.

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If there are traces of previous installations on the wall, in order to avoid cracks in the final coating, we recommend applying a fibreglass mesh (90 g/m²) using *Hydro Cement Block*.

Plasterboard surface preparation
Ensure that the joints between the panels are properly finished, reinforced with mesh and perfectly flat. Next, apply *Primer Top*, a wall filler primer designed to even out and balance the absorption properties of the surface and create an adhesive bridge for the Microlite system.

Preparation of the compound:
Microlite 100 is ready to use. Mix with a whisk drill at low speed until a uniform compound is obtained.

Application procedures:

COATING OF HORIZONTAL AND VERTICAL CONCRETE SURFACES
(texture cycle 2 - "fine-grain trowel coating")

- If the substrate is ideal as specified, apply a skim coat of *Microlite 500* with a steel trowel, ensuring that the skim coat is linear and free of defects, imperfections and bumps.

- If the cement substrates are in a very irregular condition, a second coat of *Microlite 500* is recommended to improve and level the surface.
  After complete hardening, sand the final layer of *Microlite 500* with an orbital sander and 40-60 grit paper, taking care to remove any excess material deposited.

- On a clean, dust-free surface, apply a layer of *Microlite 300* with a steel trowel, taking care to achieve the desired texture (avoid applying the material with an "S" shape movement).

- When completely hardened, proceed with sanding with 60-80 grit paper, taking care to remove any excess material deposited. Proceed with the application of a layer of *Microlite 100* using a plastic trowel, taking care not to apply too thick a layer.

  Note: The use of a steel trowel to apply *Microlite 100* may produce black streaks which are more visible on light colours; if this "effect" is not satisfactory use a plastic trowel.

- When completely hardened, proceed with sanding with 80-120 grit paper, taking care to remove any excess material deposited. Thoroughly clean the surface by vacuuming the dust and proceed with the application in two cross coats of *Techcoat Pro* protective finish, a transparent bi-component acrylic paint, leaving 6-8 hours between each application.

Please refer to the "Microlite" brochure under the "application cycles" section for additional textures that can be achieved.

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COATING OF HORIZONTAL AND VERTICAL PLASTERBOARD SURFACES

- If the substrate is ideal as specified, apply a roller application of Primer Top to stabilise, insulate and ensure adhesion to the surface.

- After 5-8 hours, depending on the chosen texture, apply a smooth coat of *Microlite 300* with a steel trowel, taking care to achieve the desired texture.
  Note: taking into account that the surface is smooth and flat, proceed with the application of the Microlite cycle, starting directly with the application of *Microlite 300*.

- When completely hardened, proceed with sanding with 60-80 grit paper, taking care to remove any excess material deposited. Proceed with the application of a layer of *Microlite 100* using a plastic trowel, taking care not to apply too thick a layer.

  Note: The use of a steel trowel to apply *Microlite 100* may produce black streaks which are more visible on light colours; if this "effect" is not satisfactory use a plastic trowel.

- When completely hardened, proceed with sanding with 80-120 grit paper, taking care to remove any excess material deposited. Thoroughly clean the surface by vacuuming the dust and proceed with the application in two cross coats of *Techcoat Pro* protective finish, a transparent bi-component acrylic paint, leaving 6-8 hours between each application.

Please refer to the "Microlite" brochure under the "application cycles" section for additional textures that can be achieved.

COATING OF HORIZONTAL AND VERTICAL TILE SURFACES
(texture cycle 2 - "fine-grain trowel coating")

- If the substrate is ideal as specified, and once the surfaces have been ground and cleaned, a layer of Hydro Cement Block is applied in the case of wide joints, followed by the application of a layer of glass fibre mesh with a specific weight of 90 g/m² and subsequent application of quartz (Note: the mesh must NEVER overlap but be laid edge to edge); in the case of standard joints, only the grinding is necessary.

- Apply a skim coat of *Microlite 500* with a steel trowel, ensuring that the skim coat is linear and free of defects, imperfections and bumps.

- After complete hardening, sand the surface with an orbital sander and 40-60 grit paper, taking care to remove any excess material deposited.

- On a clean, dust-free surface, apply a layer of *Microlite 300* with a steel trowel, taking care to achieve the desired texture.

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- When completely hardened, proceed with sanding with 60-80 grit paper, taking care to remove any excess material deposited. Proceed with the application of a layer of *Microlite 100* using a plastic trowel, taking care not to apply too thick a layer.

  Note: The use of a steel trowel to apply *Microlite 100* may produce black streaks which are more visible on light colours; if this "effect" is not satisfactory use a plastic trowel.

- When completely hardened, proceed with sanding with 80-120 grit paper, taking care to remove any excess material deposited. Thoroughly clean the surface by vacuuming the dust and proceed with the application in two cross coats of *Techcoat Pro* protective finish, a transparent bi-component acrylic paint, leaving 6-8 hours between each application.

Please refer to the "Microlite" brochure under the "application cycles" section for additional textures that can be achieved.

Note: In all the application phases of the Microlite system, the paper tapes used for masking doors, windows, skirting boards, etc., must be removed from every layer when the product is fresh and before the applied layer has completely hardened because it is easier to remove them; also note that all glass, wood and marble surfaces must be completely covered.

SPECIFICATION ITEM

A one-component acrylic coating for interiors to be applied with an average application rate of 0.450 kg/m^2 for each layer.

WARNINGS

The specification data were determined at +23°C with 65% relative humidity in the environment. Under different conditions, the data and the time intervals between one step and another can vary. The technical information contained herein is intended as an indicative guideline. Due to the great variety of substrates and application conditions, it is advisable to check the suitability for use of the product and its effectiveness by employing tests performed on the specific application.

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