# INSTALLATION INSTRUCTIONS - MicroCement



# MicroCement

MicroCement is a polymer-cement based system for creating beautiful surfaces on existing substrates such as concrete floors, plasterboard, ceramic tiles, OSB etc. The products functionality and unique appearance make it ideal for homes, shops, exhibitions, hotels and restaurants. MicroCement can be used for floors, walls, ceilings, furniture and countertops. The system is waterproof and is also suitable as a surface treatment for bathroom floors, walls and showers.

MicroCement has a myriad of applications for both indoor and outdoor use:

- Floors, walls and ceilings in homes, restaurants, offices, etc.
- As exclusive furniture and kitchen table coverings
- Door coverings
- The product is waterproof and is suitable as a surface treatment for bathroom floors, walls and showers

# The system

Our system contains the following products:

MicroPrimer: Primer for absorbent substrates MicroSandprimer: Primer for non-absorbent substrates, filler primer for minor unevenness MicroCement: Decorative compound

MicroCoat: Durable polyurethane-based coat for both indoor and outdoor use

MicroCoat Outdoor: Extremely durable polyurethane-based coat for outdoor use



# Features

- Good adhesion on most substrates
- Overall layer thickness of approx. 1.5 4 mm
- 100 % water resistant
- UV resistant
- High abrasion resistance
- Easy to maintain
- Can be tinted in over 3000 colors
- Fast application

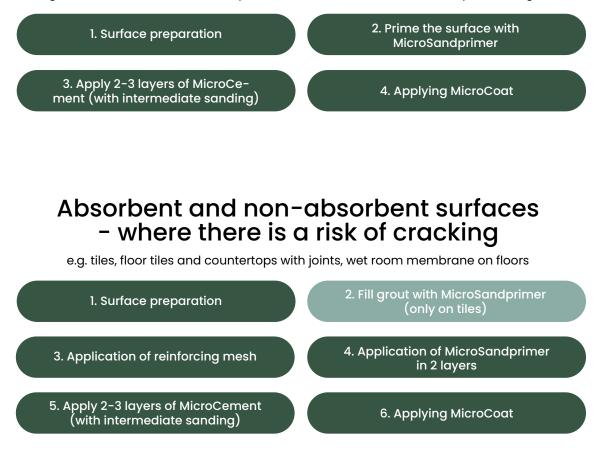
# Step by step guide

Before you start, it's important to know which substrate/surface you will be working with. This is because the substrate/surface determines which approach to take. An absorbent surface is porous or rough, which allows liquids to soak into the substrate; a nonabsorbent surface is smooth or non-porous, which prevents liquids from soaking into the substrate.



## Non-absorbent surfaces - where there is no risk of cracking

e.g. seamless laminate countertops, wet room membrane on walls, vinyl, terazzo, glass



## Absorbent surfaces - where there is no risk of cracking

e.g. untreated wood panels and fiberglass without joints, reinforced concrete floors

#### **Step 1: Surface preparation**

The surface must be firm and stable. Clean the surface thoroughly with MicroPreclean and allow to dry.

Step 2: Prime the surface with MicroPrimer MicroPrimer is applied with a brush or roller. Drying time: 4 - 6 hours.

### Step 3: Apply 2-3 layers of MicroCement (with intermediate sanding)

MicroCement is stirred with a stirrer before use. MicroCement should always be applied in 2-3 thin layers, with intermediate sanding between each layer. For intermediate sanding, use 80, 120 and 180 grit. Each layer of MicroCement must dry for at least 2-4 hours before sanding. The last layer of MicroCement must dry for at least 12 hours before coating.

#### Step 4: Applying MicroCoat

Make sure the substrate/surface is hardened and free of dust. Wash with clean water to remove dust. The substrate/surface must have at least 2 layers of coat. See section on MicroCoat.

Drying time: First layer must dry 4-8 hours before the next layer can be applied. Light traffic is allowed after 24 hours. Fully cured/watertight after 7 days.

## Non-absorbent surfaces where there is no risk of cracking

e.g. seamless laminate countertops, wet room membrane, vinyl, terazzo, glass

### Step 1: Surface preparation

The surface must be firm and stable. Clean the surface thoroughly with MicroPreclean and allow to dry.

#### Step 2: Prime the surface with MicroSandprimer

Apply MicroSandprimer in at least 2 layers. Wait 2-4 hours between each application. MicroSandprimer can be applied with a spatula, roller or brush.

Drying time: 4-6 hours.

### Step 3: Apply 2-3 layers of MicroCement (with intermediate sanding)

MicroCement is stirred with a stirrer before use. MicroCement should always be applied in 2-3 thin layers, with intermediate sanding between each layer. For intermediate sanding, use 80, 120 and 180 grit: Each layer of MicroCement must dry for at least 2-4 hours before sanding. The last layer of MicroCement must dry for at least 12 hours before coating.

### Step 4: Applying MicroCoat

Make sure the substrate/surface is hardened and free of dust. Wash with clean water to remove dust. The substrate/surface must have at least 2 layers of coat. See section on MicroCoat. Drying time: First layer must dry 4-8 hours before the next layer can be applied. Light traffic is allowed after 24 hours. Fully cured/ watertight after 7 days.

## Absorbent and non-absorbent surfaces - where there is a risk of cracking

e.g. tiles, untreated wood and fiberglass with joints, laminate countertops with joints

Step 1: Surface preparation

The surface must be firm and stable. Clean the surface thoroughly with MicroPreclean and allow to dry.

#### Step 2: Fill grout with MicroSandprimer (on tiles only)

If you are working with existing tiles, the grout must be filled with MicroSandprimer. Drying time: 2-4 hours.

Step 3. Application of reinforcing mesh Cut the reinforcement mesh and lay it on top of the MicroSandprimer.

**Step 4. Application of MicroSandprimer** Apply MicroSandprimer in 2 layers on top of the reinforcement mesh. Drying time: 4 - 6 hours.

#### Step 5. Apply 2-3 layers of MicroCement (with intermediate sanding)

MicroCement is stirred with a stirrer before use. MicroCement should always be applied in 2-3 thin layers, with intermediate sanding between each layer. For intermediate sanding, use 80, 120 and 180 grit. Each layer of MicroCement must dry for at least 2-4 hours before sanding. The last layer of MicroCement must dry for at least 12 hours before coating.

#### Step 6: Applying MicroCoat

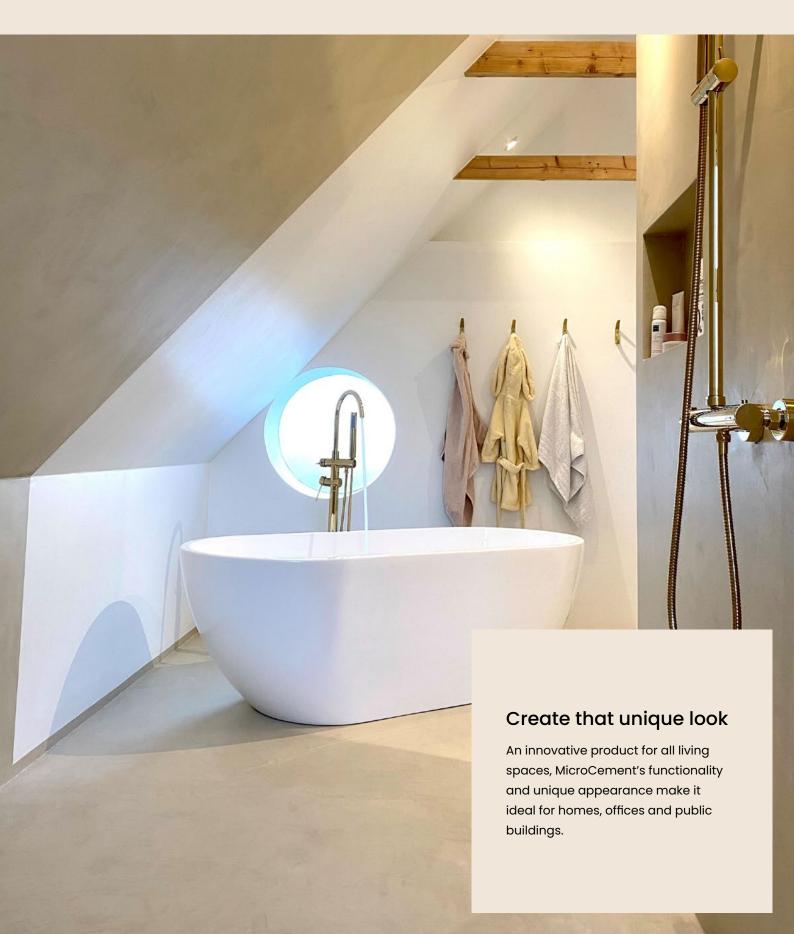
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### MicroCement - 5 tips

- 1. For larger areas and when using multiple buckets with the same surface, we recommend mixing the buckets to avoid color differences.
- 2. MicroCement can be added a maximum of 10% water to facilitate the application of the first layers on the floor.
- 3, MicroCement should always be applied in thin layers.
- 4. Clean the tool thoroughly between each application to avoid scratches and marks from dried MicroCement in the subsequent layer.
- 5. When using MicroCement on floors, the underfloor heating must be turned off at least 72 hours prior to treatment. The underfloor heating may only be started after a minimum of 24 hours drying time from the last layer of MicroCoat.



On the following pages, we go through all our products technical data, preparation and application.





MicroSandprimer consumption: 0.3 -0.8 kg / m2 1 - 2 kg / m2 with reinforcing mesh Drying time: 4-6 hours

#### **MicroPrimer consumption:**

Approx. 0.1 - 0.3 I. / m2 (depending on the absorbency of the surface) **Drying time:** 2-4 hours Drying time dependents on layer thickness, type of substrate, temperature, humidity, ventilation etc.

# MicroPrimer

Primer for use before applying MicroCement. This primer reduces and equalizes absorbency and ensures MicroCement adhesion. MicroPrimer for concrete and self-levelling floor is ideal for priming absorbent substrates before applying MicroCement. MicroPrimer is ready to use and contains enough primer to prime 3-10 m2 depending on the absorbency of the surface.

MicroPrimer can be applied to the surface by roller or brush. Do not apply more MicroPrimer than it can absorb into the substrate. It is always important that the preparation is done correctly to achieve a beautiful result.

# MicroSandprimer

MicroSandprimer is ready to use after stirring. It is suitable for priming non-absorbent substrates and as an adhesion primer. Can be used on almost all substrates, from fiberglass and OSB boards to smooth concrete, ceramic tiles, glass, linoleum, hard vinyl, etc.

Quartz sand is added to provide a rough surface after application, which greatly increases the adhesion of subsequent layers.

In addition to increasing adhesion, MicroSandprimer covers unevenness in the substrate of up to 2-3 mm.



# MicroTimer

MicroTimer is an additive that extends the "opening time" and working time of MicroCement. It allows for easy cleaning of the tool after finishing work. It is odorless and does not affect the hardness of the MicroCement.

### Mixing ratio:

The product can be added to all our MicroCement variants in a proportion of 1 to 3% of the MicroCement weight. Mix thoroughly.



Microcement, ready-mixed and ready to use.

MicroCement is available in 3 coarsenesses: Fine: Grain size 0.05 mm (smooth surface with more changing)

**Soft:** Grain size 0.08 mm (smooth surface with less changing)

**Standard:** Grain size 0.1 mm (minimum changing) All variants may be diluted with max. 10% water for easier application on floors etc.

#### Consumption:

0.7 - 0.9 kg / m2 - the first layer 0.3 - 0.4 kg / m2 - the second and subsequent layers

# MicroCement

MicroCement is delivered ready-mixed and after opening, stir the product with a suitable tool, e.g. a stirrer attached to a drill.

Application temperature 10 °C - 26 °C. Use at higher temperatures will significantly reduce processing time. Use at lower temperatures may result in incorrect and lack of curing. The product should be stored in a cool, frost-free place and out of direct sunlight.

### Application and preparation

Spread MicroCement over the entire surface in small portions and thin layers, with a maximum thickness of 1 mm. Apply the compound using a stainless spatula, trowel, rubber trowel or other tool. The application should be done with quick, vigorous movements in different directions, depending on the desired effect. Apply the material wet-on-wet, starting in the inner corner and working backwards towards the exit. The application should be done in a single operation without interruption.

If you have chosen MicroCement Fine in light colors, it can be applied with a rubber trowel to avoid dark lines (burn marks).

After approx. 2 - 4 hours the material is dry. Lightly sand the floor using an eccentric sander with 80 - 120 grit sandpaper, depending on the desired effect. Difficult areas such as corners and the like are sanded by hand or with a triangle sander. Vacuum the entire surface thoroughly and then apply the next layer in the same way as the previous one.

After another 2-4 hours of drying, sand the final layer thoroughly with an eccentric sander. Use 120 - 180 grit sandpaper, depending on the desired surface. The finer the sandpaper, the smoother the surface.

After the last coat of MicroCement, let the floor stand for at least 12 hours, then wash with clean water and coat with at least 2 layers of MicroCoat (see MicroCoat section).



#### MicroCoat:

1000 ml of component A + 200 ml of component B = 1200 ml

### Mixing ratio:

5 parts of component A 1 part of component B

- Colorless
- Application temperature: +10 °C +25 °C
- Touch dry after 4-8 hours
- Light traffic in socks is possible after 24 hours
- Full load/curing/watertight after 7 days
- Consumption: 100-120 ml/m² at 2 layers
- Gloss: Matt (Gloss 5), Satin (Gloss 10) or Gloss (Gloss 80)
- Shelf life after mixing: 2 hours (pot life)
- Shelf life unmixed: 12 months (pot life)

# MicroCoat

MicroCoat is a 2-component polyurethane coating with high abrasion resistance and excellent flexibility. MicroCoat is also highly resistant to UV rays. Provides a durable and resistant surface.

### Can be used for:

- Concrete and stone for indoor and outdoor use

- Protection of surfaces with older epoxy resin coatings, polyurethane resin, cement coatings on floors and walls

- Protection of microcement and cement coatings with high and low porosity

### Application and preparation

The surface must be hardened, sustainable, dry, clean and free from dust, waxes and oils. Shake the containers of polyurethane MicroCoat thoroughly. Add the hardener, component B, as indicated on the package in a 5:1 ratio (5 parts by weight of component A to 1 part by weight of component B). Stir the fully mixed MicroCoat thoroughly and allow it to rest for 2-3 minutes before stirring thoroughly again. Strain the stirred MicroCoat through a sieve.

IMPORTANT: Prepare only the amount of MICROCOAT needed for each application, as the mixed MICROCOAT has a maximum potlife of 2 hours.

Apply MicroCoat in at least 2 layers with a high-quality paint roller. The second layer of MicroCoat can be applied after 8 hours. If the second layer is applied within 24 hours, this can be done without intermediate sanding. Application after 24 hours requires a light sanding of the surface with 180 grit sandpaper.



### MicroCoat Outdoor:

Mixing ratio: 2 parts by weight of component A + 1 part by weight of component B E.g. 800 g. of component A + 400 g. of component B = 1200 g.

- Colorless
- Application temperature: +10 °C +25 °C
- Touch dry after 4-8 hours
- Light traffic in socks is possible after 24 hours
- Full load/curing/watertight after 7 days
- Consumption: 0.1 kg. 0.15 kg. / m² at 2 layers
- Gloss: Satin (Gloss 10)
- Shelf life after mixing: 45 minutes
- Shelf life unmixed: 6 months

# MicroCoat Outdoor

2-component polyurethane coating with very high abrasion resistance and excellent flexibility for the best durability. MicroCoat Outdoor is weatherproof and resistant to UV rays and will therefore not yellow over time.

- Protection of MicroCement for indoor and outdoor use
- Protection of industrial floors with heavy traffic and exposure to high mechanical stress
- Protection of surfaces with older epoxy resin coatings, polyurethane resin and cement coatings
- Concrete and stone sealers and cement coatings with high and low porosity.

### Application and preparation

The surface must be hardened, sustainable, dry, clean and free from dust, waxes and oils. Shake the containers of polyurethane MicroCoat Outdoor thoroughly. Add 2 parts component A and 1 part component B (ratio 2A:IB) and stir the mixture thoroughly, allowing it to rest for approximately 10 minutes before stirring again.

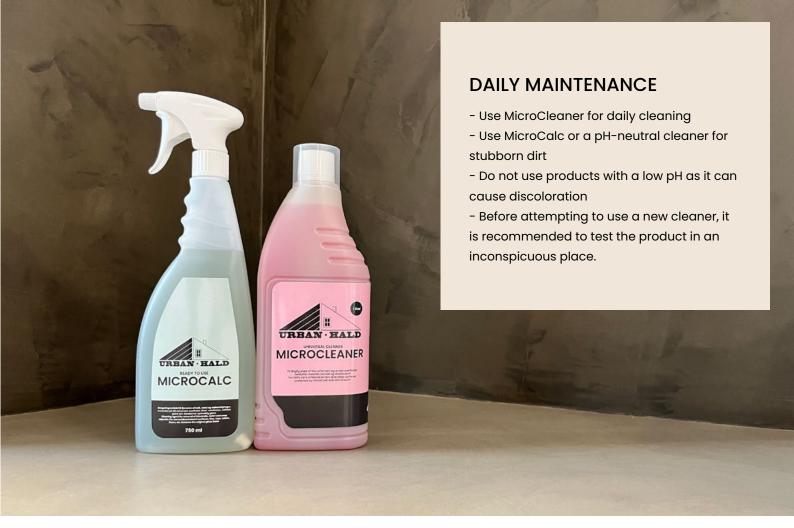
NOTE: Do not use MicroCoat Outdoor in direct sunlight, in draughts and on damp surfaces.

IMPORTANT: Prepare only the amount of MicroCoat Outdoor needed for each application, as the finished mixture has a maximum pot life of 45 minutes.

Apply MicroCoat Outdoor with a high-quality paint roller. The second layer of MicroCoat Outdoor can be applied after 4-8 hours. If the second layer is applied within 24 hours, this can be done without intermediate sanding. Application after 24 hours requires a light sanding of the surface with 180 grit sandpaper.

# Overview

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Coat dipprox. 100-120 ml./m² at 2 layers



# Safety during work

Before starting work, read the instructions carefully. If you have any questions, please contact Urban-Hald ApS.

General recommendations:

- Use of mask and gloves is recommended
- Avoid contact with skin, eyes, etc.
- In case of inappropriate contact, rinse with plenty of water and seek medical advice if necessary
- Keep out of reach of children
- Ensure good ventilation in enclosed areas
- The products are flammable

### MicroCoat

Component A:

- Local irritant
- Avoid contact with skin, eyes, etc.
- In case of inappropriate contact, rinse with plenty of water and seek medical advice if necessary
- Wear a mask and gloves

Continued on the next page.

Component B:

- Harmful by inhalation
- May cause an allergic skin reaction
- Contains isocyanates which can cause an allergic reaction, seek medical advice if necessary
- Avoid breathing dust / fumes / gas / vapors / spray
- Keep container tightly closed in a well-ventilated area
- Always wear protective gloves / protective clothing / eye protection / face protection

### MicroCoat Outdoor

Component A:

- Irritant
- Highly flammable
- May cause fatigue and dizziness
- Avoid contact with skin, eyes, etc.
- In case of inappropriate contact, rinse with plenty of water and seek medical advice if necessary
- Wear a mask and gloves
- For outdoor use only or in a well-ventilated area

### Component B:

- Harmful by inhalation
- Highly flammable
- May cause an allergic skin reaction
- Contains isocyanates and hexamethylene diisocyanate, which can cause an allergic reaction seek medical advice if necessary
- Avoid breathing dust / fumes / gas / vapors / spray- Keep container tightly closed in a well ventilated area
- Always wear protective gloves / protective clothing / eye protection / face protection



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