Microcement
Polished Concrete
Application Instructions

CONCRETE LAB
polished concrete materials

1 Product Description

Microcement is sometimes known as microconcrete, microtop, and beton ciré amongst other names. It is a trowel-applied finish for walls, floors, worktops and furniture.

Concrete Lab Microcement Polished Concrete is a two coat microcement system. So in essence the polished concrete surface is created by applying two coats of microcement.

When you purchase Concrete Lab Microcement Polished Concrete, you will receive the following;

1. A bottle of **Concentrated Primer** for the substrate
2. 2 packs of **Microcement Powder**
3. 2 bottles of **Ready-To-Use Microcement Resin**
4. 2 packs of **Powdered Colourant**

Each Microcement pack comes in 3 size options for covering 1m^2, 5m^2 or 10m^2.
Each coat of microcement will cover the pack size, so for example a 5m^2 pack will contain two coats which will both cover 5m^2

Concrete Lab Microcement can be applied to variety of different substrates as long as they are sound and free from movement and are not subject to standing water, for example sinks and baths.

Finally it is:

✓ Easy to apply
✓ Easy to repair if damaged
✓ Compatible with Ecobeton GiGi Concrete Sealer

PLEASE READ THE FULL INFORMATION SHEET BEFORE COMMENCING YOUR MICROCEMENT PROJECT.

2 Equipment Required

Equipment For Mixing

- Electric paddle mixer (optional and preferable)
- Containers for mixing
- Bucket trowel (optional) for scraping the mix in the bucket

Equipment For Application of Microcement

- Roller & frame
- Paint tray
- 240mm spatula or Plastering Trowels
- Orbital Sander (Mirka Deros or similar)
- Dust Extraction
- 50, 100, 200 dry diamond pads (ATS or similar)
- 80, 120, 180 or 240 grit (Mirka Abranet or similar)
- Good quality joint tape
- Fibreglass mesh

Personal Protective Equipment

a. P3 Dust Mask
b. protective gloves
c. Type 5/6 disposable coveralls
d. Eye protection
e. Suitable footwear

NOTE - Concrete Dust - sanding concrete can expose crystalline silica which is hazardous to health.
To mitigate this, the PPE described above should be used and suitable and efficient dust extraction should be attached to your sander.
This is extremely important. Whilst sanding microcement creates very little airborne dust, without implementing the above, there is a risk of concrete dust exposure.

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3 Whats Included In Each Microcement Pack

1 Square Metre Pack (sample)

A. 2 Packs of Microcement Powder
B. 1 Bottle of Concentrated Primer to be diluted with 3 parts water
C. 2 Bottles of Ready To Use Microcement Liquid (one for each microcement coat)

5 Square Metre Pack

A. 2 Packs of Microcement Powder
B. 1 Bottle of Concentrated Primer to be diluted with 3 parts water
C. 2 Bottles of Ready To Use Microcement Liquid (one for each microcement coat)

10 Square Metre Pack

A. 2 Packs of Microcement Powder
B. 1 Bottle of Concentrated Primer to be diluted with 3 parts water
C. 2 Bottles of Ready To Use Microcement Liquid (one for each microcement coat)

PLEASE NOTE - THE SEALER IS SOLD SEPARATELY UNLESS YOU ARE ORDERING A BUNDLE KIT.

4 Surface Preparation

Good preparation is very important to ensure a high quality finish and reduce the chance of any problems in the future. Our products are durable but any project is only as good as the surface / sub-base it goes over.

Concrete Floors - See Diagram in Appendix A

e. Ensure the surface is clean, free from grease/wax or any other contaminants.
f. Ensure the surface is sound/solid with any joints between materials fully secured to prevent cracking.
g. Any cracks should be raked out to a width of approx 5mm and repaired with epoxy crack repair filler (not supplied).
h. Apply Self-Adhesive Lay Flat Mesh Tape over repaired joints (http://c-lab.uk/taauj)
i. Lay Fibreglass Mesh over entire floor area overlapping each 1 metre wide section by 100mm (http://c-lab.uk/8on6d)
j. Apply Universal Primer to floor and allow to go tacky which will take approx 30 minutes (http://c-lab.uk/7stnn).
k. Apply a good quality self-levelling compound over the primed and meshed floor.
l. Apply a second coat of Primer (supplied in the kit) and leave to go tacky for 30 minutes prior to microcement application.

Timber Floors - See Diagram in Appendix A

a. Ensure the surface is clean, free from grease/wax or any other contaminants.
b. Affix 6mm thick cement board to the existing timber floor. Use 300mm centres for screws.
c. Apply Self-Adhesive Lay Flat Mesh Tape over joints (http://c-lab.uk/taauj)
d. Lay Fibreglass Mesh over entire floor area overlapping each 1 metre wide section by 100mm (http://c-lab.uk/8on6d)
e. Apply Universal Primer to floor and allow to go tacky which will take approx 30 minutes (http://c-lab.uk/7stnn).
f. Apply a good quality self-levelling compound over the primed and meshed floor.
g. Apply a second coat of Primer (supplied in the kit) and leave to go tacky for 30 minutes prior to microcement application.

Plastered Walls - See Diagram in Appendix A

a. Ensure the surface is clean, free from grease/wax or any other contaminants.
b. Ensure the plaster has had time to dry. In the case of new builds or extensions we recommend a period of 6 months prior to microcement application.
c. Apply a coat of Primer (supplied in the kit) and leave to go tacky for 30 minutes prior to microcement application.

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Wetrooms

Surface preparation for wetrooms can be found in a separate document located in the support section of our website. Below is a link to the document;

Wetroom Preparation PDF

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Furniture & Kitchen Worktops

Microcement is an extremely robust product if applied correctly. If the substrate onto which it is applied is not suitable however (e.g. flexes too much, loose joints between sections etc.) then the microcement will crack or worse fail.

a. Ensure the surface is clean, free from grease/wax or any other contaminants.
b. If possible ensure all joints between substrate materials are screwed together and also glued with polyurethane glue.
c. Apply a coat of Primer (supplied in the kit) and leave to go tacky for 30 minutes.
d. Apply Self-Adhesive Lay Flat Mesh Tape over joints in materials and edges (http://c-lab.uk/taauj).
e. Apply Lay flat fibreglass mesh on the work surfaces.

NOTE - Where there are changes in surfaces from horizontal to vertical, for example with a splash back ensure the mesh/mesh roll is folded into the corners and runs up the adjacent surface by 50mm.

f. Apply the “standard” microcement according to the instructions below. i.e. apply coat 1 onto the mesh, sand, primer, apply coat 2, sand, apply sealer.

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NOTES for Application of Primer

a. Mix 3 parts clean water to 1 part neat resin.
   TIP - Mark a line on the bottle where the neat resin sits. Use this line to mark out where to fill the bottle to, when adding the extra water.
b. Apply one layer or the primer with a paint roller to areas to be microcemented. Let dry for at least 30 minutes.
c. If applying mesh we recommend going over it with self levelling compound.
d. Self levelling compound must be primed before application of microcement.
e. We recommend sanding any undulations/bumps in the self-levelling compound to ensure a smooth substrate.
f. Install self-adhesive mesh tape after priming once the primer is dry.

6 Mixing

IMPORTANT

For either the 5 or 10 square metre kits, do not mix all of the powder up in one go. Mix up the microcement and liquid in batches.

POT LIFE - Approx 20-30 minutes depending on ambient conditions

d. In a clean bucket add a pack of the microcement powder.
e. Pour in the Microcement Resin gradually whilst mixing with the electric paddle mixer. Continue to add the liquid and mix until the microcement reaches a smooth creamy consistency, similar to yoghurt.
   Make sure the corners of the bucket are scraped so that any dry material is mixed and there are no lumps.
f. Mix the product for approximately 10 minutes.
g. Let it rest for 10 minutes. During this time all of the components will absorb the liquid. The mix may stiffen and this is normal.
h. After 10 minutes remix the microcement to reach the smooth yoghurt-like consistency once more.

“BATCHING”

If you are “batching” your mix (i.e. only mixing part of a pack) then it is important to ensure that the quantity of liquid added to the powder is of the correct quantity by ratio. We recommend doing this by weight and not volume.

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7 Application

a. Spread the microcement with a spatula or trowel on the surface with pressure. the coat should be approx 1mm in thickness. Any thicker and there will be a risk of cracking and debonding.
   IMPORTANT - the coverage of the microcement has been rigorously tested and is accurate for each pack. If the microcement does not cover the specified area it has been applied TOO THICKLY Once completed the first coat should be left to dry for 24 hours.
b. After 24 hours the microcement should be lightly sanded with a 80 to 120 grit orbital sanding pad to achieve an even smooth surface.
c. Apply a second coat of primer and left to dry for a minimum of 30 minutes.
d. Once the primer has been applied the second coat can be applied at a thickness of 1mm.
e. After at least 8 hours, sand with the orbital sander using the 120,180 & 240 grit pads (or similar) to achieve a smooth or desired finish.

8 Apply Sealer (we recommend Ecobeton GiGi Sealer supplied separately on our website)

Weblink - http://c-lab.uk/gigi

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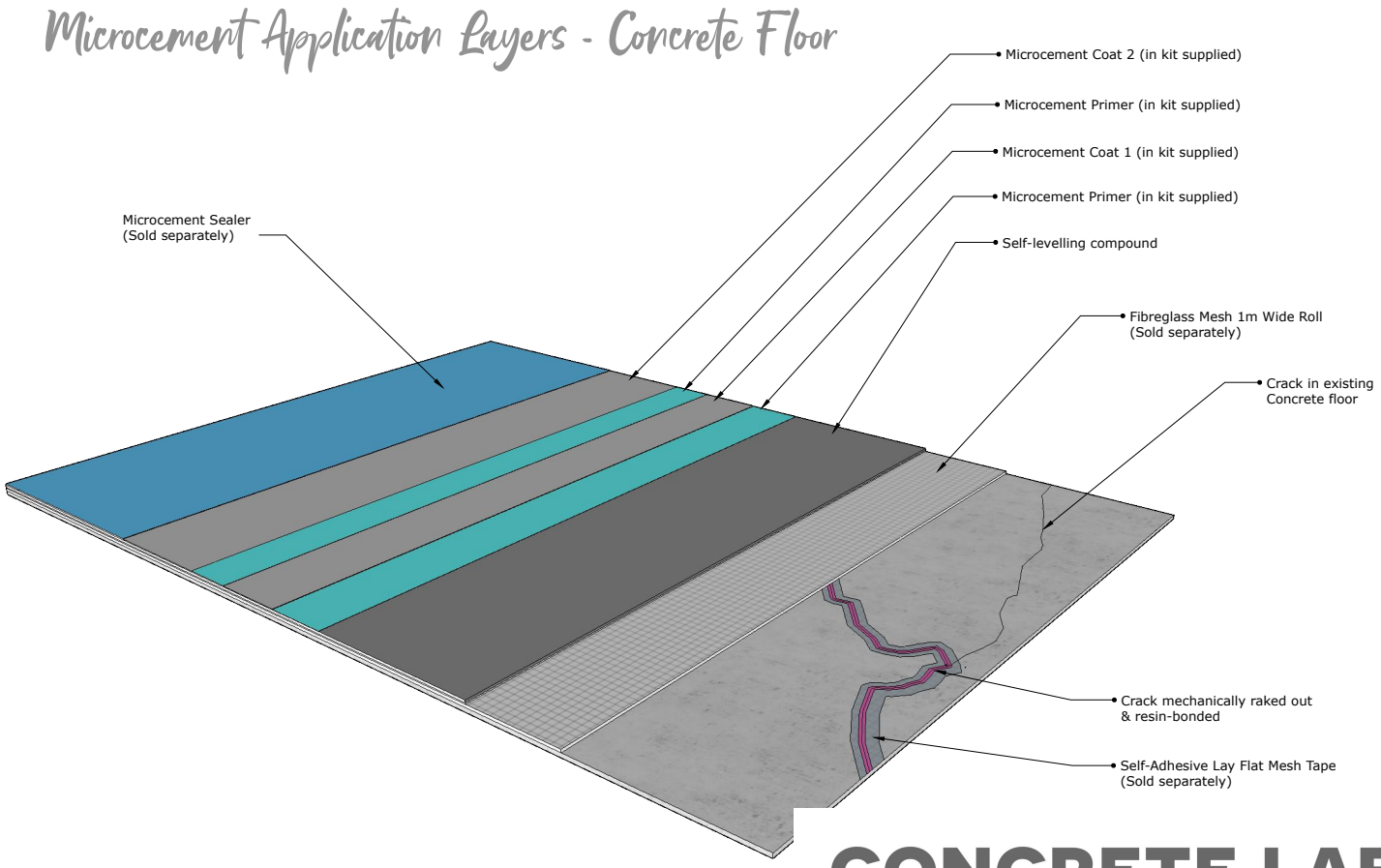
Appendix A - Flooring Diagrams



Weblink - http://c-lab.uk/mccf

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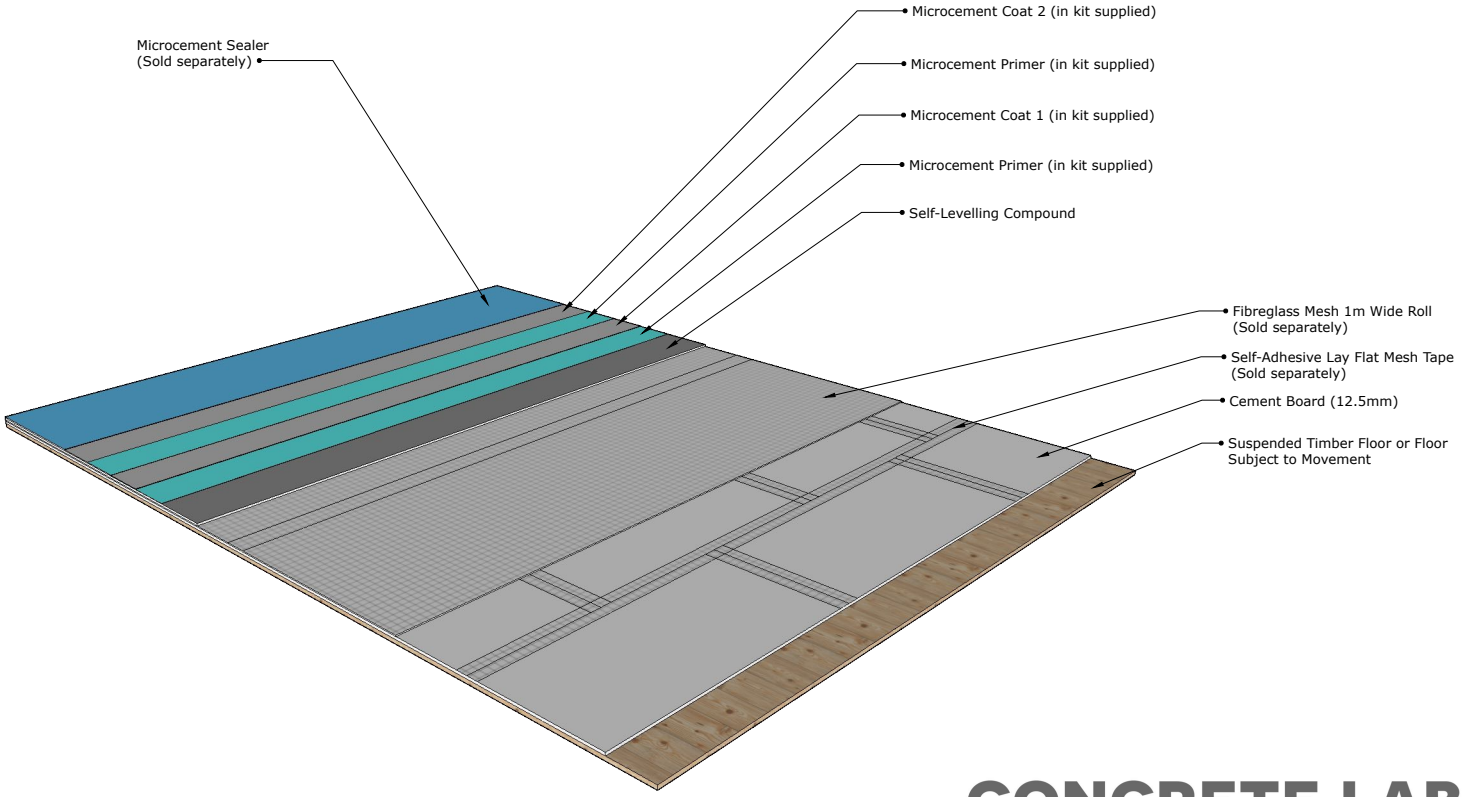
Microcement Application Layers - Timber Floor



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Web link - http://c-lab.uk/mctf

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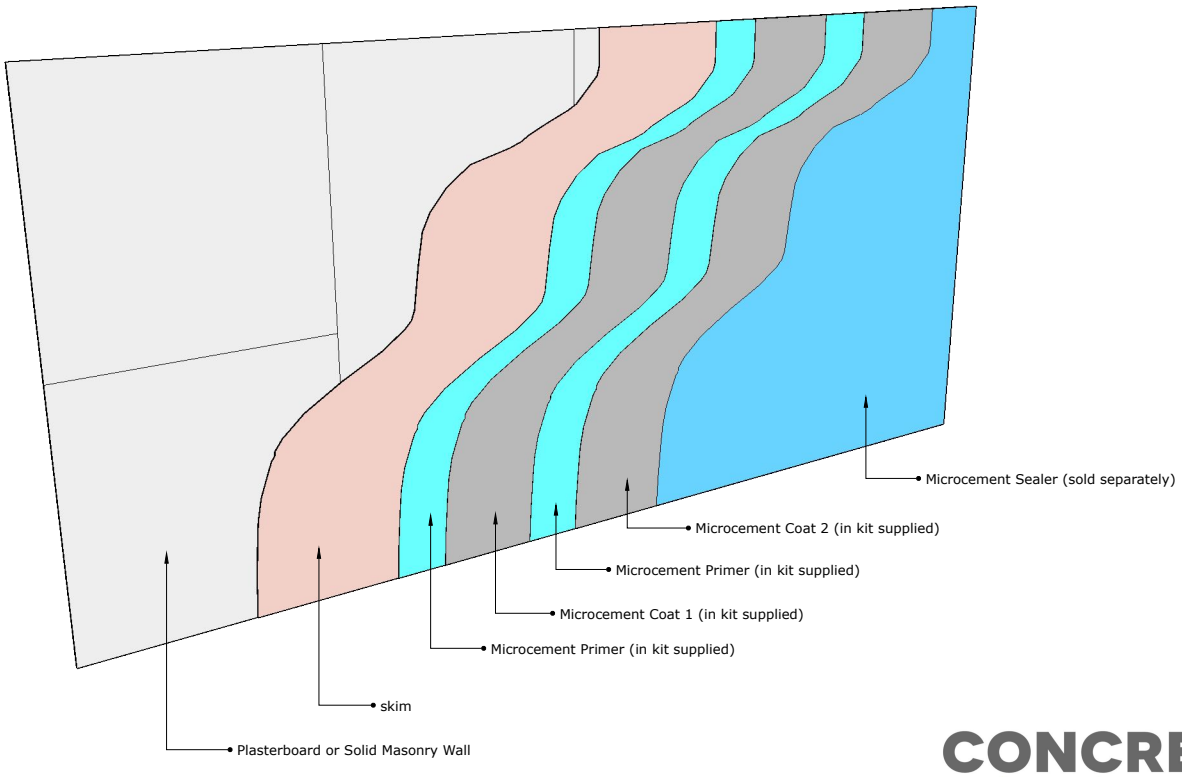
Microcement Application Layers - Plastered Wall



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Weblink - http://c-lab.uk/mcsw