

Microcement Application Instructions



1 Product Description

Our Microcement Polished Concrete Kit contains liquids required to prime the substrate and the powders required for the microcement allowing you to produce your own polished concrete floor, walls, worktops and furniture.

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.

The kit comes in 3 size options for covering 1sqm, 5sqm or 10sqm, and comes in a choice of either a white or grey base. Light, mid and dark grey use a grey cementitious base. White/off white uses a white cementitious base.

It 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.

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

It is:

- ✓ Easy to apply
- ✓ Easy to repair if damaged
- ✓ Compatible with Ecobeton GiGi Concrete Sealer (supplied separately)

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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

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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 The Kit

1 Square Metre Kit (sample)

- A. 2 Packs of Microcement Powder
- B. 1 Bottle of Concentrated Primer to be diluted with 3 parts water
- C. 2 Bottles of Concentrated Microcement Liquid to be diluted with 2 parts water.

5 Square Metre Kit

- A. 2 Packs of Microcement Powder (6.43kg each)
- B. 1 Bottle of Concentrated Primer (250ml) to be diluted with 3 parts water
- C. 2 Bottles of Concentrated Microcement Liquid (600ml each) to be diluted with 2 parts water.
- D. 1 Small Bottle of Plasticizer (straw-coloured liquid)

10 Square Metre Kit

- A. 2 Packs of Microcement Powder (11.58kg each)
- B. 1 Bottle of Concentrated Primer (500ml) to be diluted with 3 parts water
- C. 2 Bottles of Concentrated Microcement Liquid (1100ml each) to be diluted with 2 parts water.
- D. 1 Small Bottle of Plasticizer (straw-coloured liquid)

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

- a. Ensure the surface is clean, free from grease/wax or any other contaminants.
- b. Ensure the surface is sound/solid with any joints between materials fully secured to prevent cracking.
- c. Any cracks should be raked out to a width of approx 5mm and repaired with epoxy crack repair filler.
- d. Apply Self-Adhesive Lay Flat Mesh Tape over repaired joints (<http://c-lab.uk/taauj>)
- e. Lay Fibreglass Mesh over entire floor area overlapping each 1 metre wide section by 100mm (<http://c-lab.uk/8on6d>)
- f. Apply Universal Primer to floor and allow to go tacky which will take approx 30 minutes (<http://c-lab.uk/7stnn>).
- g. Apply a good quality self-levelling compound over the primed and meshed floor.
- h. Apply a second coat of Primer (supplied in the kit) and leave to go tacky for 30 minutes prior to microcement application.

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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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Furniture & Kitchen Worktops

- a. Ensure the surface is clean, free from grease/wax or any other contaminants.
- b. If possible ensure all joints between materials are screwed to gather and also glued with polyurethane glue.
- c. Apply Self-Adhesive Lay Flat Mesh Tape over joints in materials (<http://c-lab.uk/taauj>).
- d. 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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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 of 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.

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6 *Mixing*

IMPORTANT

POT LIFE - Approx 20 minutes depending on ambient conditions

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.

- a. Mix neat resin with 2 part clean water.
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. In a clean bucket add a batch of the microcement powder. **DO NOT** add the powder to the liquid.
- c. Pour in the diluted 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.
- d. Let it rest for 10 minutes as there will be a false set.
- e. After 10 minutes remix the microcement adding a small amount of extra liquid if required to reach the smooth yoghurt-like consistency once more.
- f. If the mix is still stiff add **a few drops** of the Plasticizer and mix thoroughly.

TIPS

- the consistency of the microcement should be like yoghurt
- on hot days the mix will set more quickly and this is when the plasticiser may be required)

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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 1 to 2mm in thickness. Any thicker and there will be a risk of cracking and debonding.
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 1-2mm.
- 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.

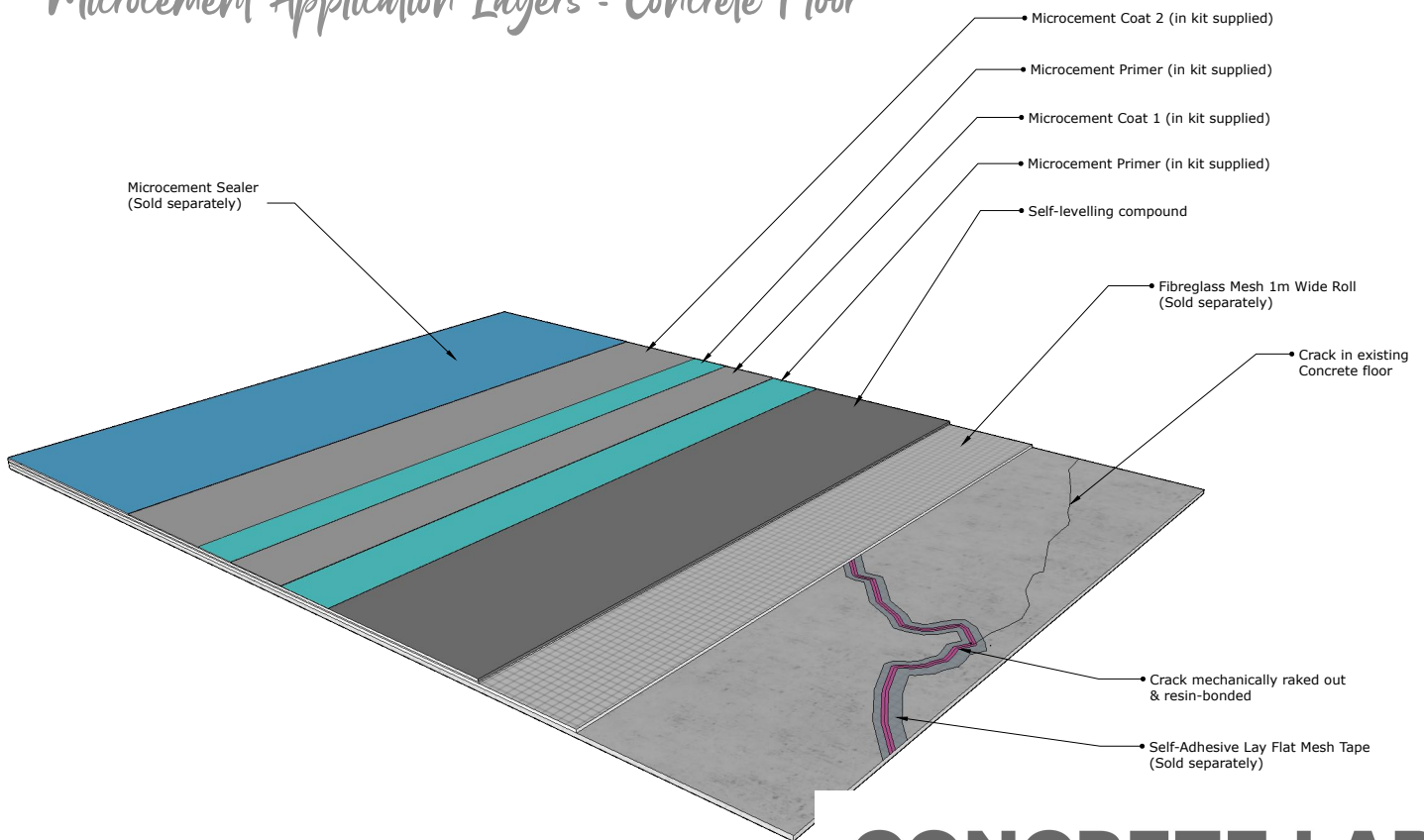
8 Apply Sealer (we recommend Ecobeton GiGi Sealer supplied separately on our website)

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

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Appendix A - Flooring Diagrams

Microcement Application Layers - Concrete Floor

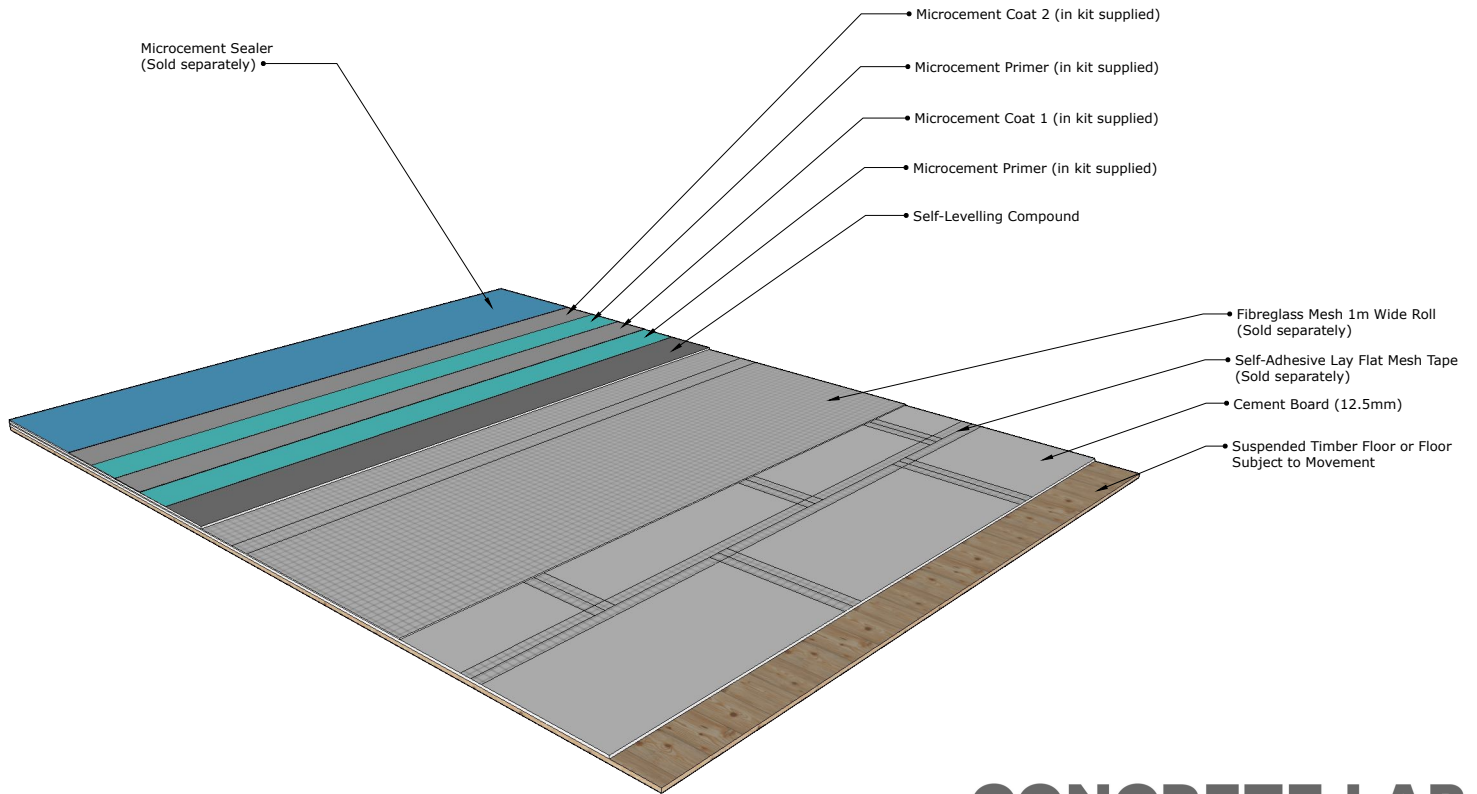


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Microcement Application Layers - Timber Floor



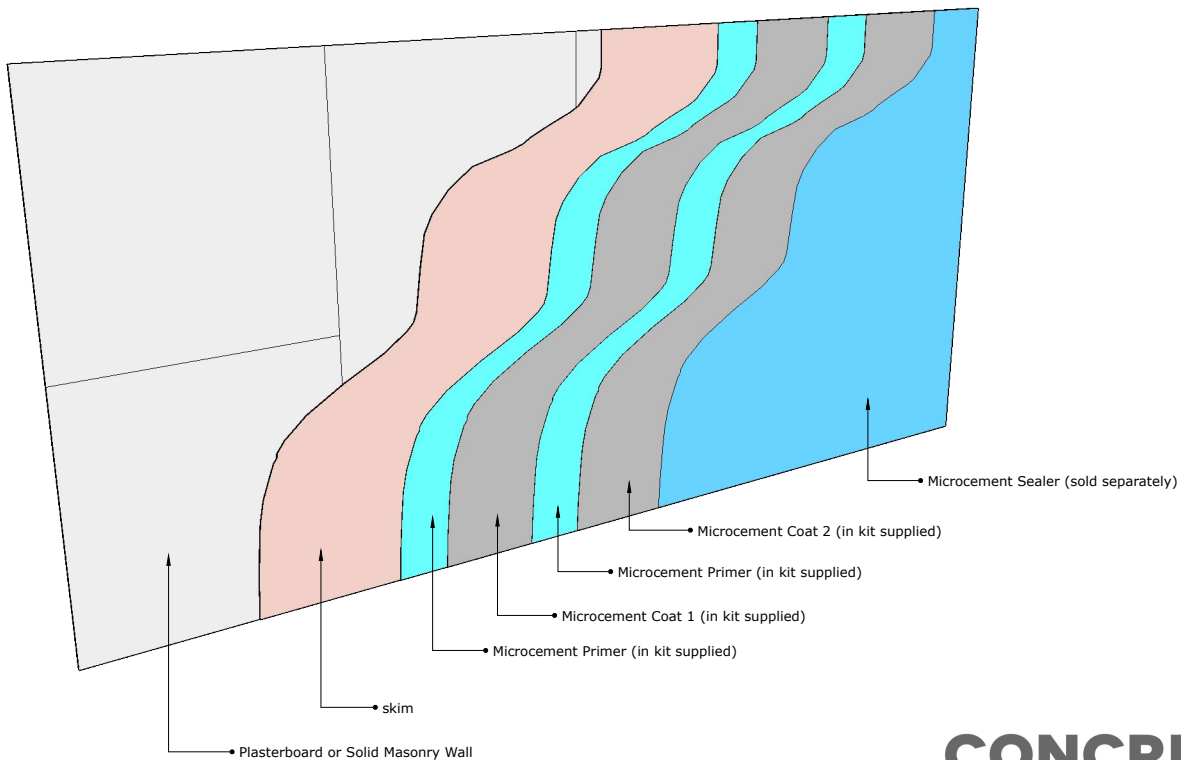
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Microcement Application Layers - Plastered Wall



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