

TECHNICAL DATA: Politura Microcement

Product Description:

- Politura is a Polymer Modified Microcement that was created after years of research, development and decades of experience having introduced our first Microcement in 1992. The technology behind Politura is the **most advanced** in the market place in terms of **durability** and **ease of application**. The triple quartz matrix ensures that **Politura has industry leading wear ability**.
- Our Microcement is **not** manufactured with Calcium Carbonate (chalk) with a Mohs scale reading of 3 or even silica sand with a Mohs hardness of 5 – 6. Politura is manufactured from Quartz sand with a Mohs hardness of 7.
- Because of its exceptional hardness Politura can be polished without the use of waxes to give a **true polished concrete look** removing all the associated maintenance issues and bacteria harbouring waxes.
- Politura is a just add water product. No need to keep or stock liquid polymer. By incorporating the polymer into the powder product, we have been able to improve adhesion, **shorten working time** and increase surface hardness. **Consistency of product** and finish has been greatly enhanced.
- Politura is supplied pre-coloured to eliminate contractor time and potential errors on site. What's more Politura Medium, Politura Fine and Politura Stone have a very subtle colour difference so as the product is sanded a natural marbling effect will appear without all the trial and error associated with other products. This is very easily controlled by the contractor.
- Politura offers the applicator a consistent, high quality product that can be applied over and over again while achieving the same results. What's more Politura is a **2 – 3 day system** saving the contractor time and money.
- By combining the three grades of Politura the applicator has a choice of six different finishes, **Textured, Salt and Pepper** (industrial Look), **Smooth Polished, Smooth Linen, Soft Cloudy and Stone** effect with a very smooth and even with little texture or marbling, however in the hands of an experienced craftsman it's possible to achieve a multitude of finishes and designs.

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- With its modern seamless tactile feel Politura creates the simple elegant look that will satisfy even the most demanding of clients. Available in a wide range of neutral shades Politura is just as at home in an elegant loft as a country farm house.
- Once sealed with one of our wide range of products, Politura will continue to give the client an **elegant seamless easily maintained** floor for many years to come.

Product features

- Solvent free
- Environmentally friendly
- Easy application, pre-coloured and just add water
- Safe, reliable and repeatable finish
- Excellent adhesion to mineral surfaces, timber, MDF and even steel.
- Long working life, rapid drying.
- Low to zero odour
- UV Stable
- Water and Chemical Resistant
- Same product but different finishes achievable
- Rapid return to work.

Areas of Use:

Domestic

- Kitchens
- Bathrooms
- Living areas

Commercial - any commercial area requiring a high quality floor with an added wow!

- Shops
- Offices
- Show rooms

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Mix Ratio

10Kg Politura Medium: 3.2 – 3.8 litres clean water at 20° C

10Kg Politura Fine: 3.2 – 3.8 litres clean water at 20° C

To applicators desired consistency, the chosen amount of water must be maintained throughout the mixing of multiple kits.

Application Conditions and Temperature:

Minimum 5° C air and substrate temperature.

Optimum 20° C air and substrate temperature.

Working Time:

Temperature	10 °C	20 °C	30 °C
Time	60 minutes	45 minutes	30 minutes

Cure Schedule:

Temperature	10 °C	20 °C	30 °C
Light Foot Traffic	14 - 16 hrs	8 – 10 hrs	6 - 8 hrs
Tack free:	3 - 4 hours @ 20 °C		
Mechanical Load:	2 – 3 days @ 20 °C		
Full Chemical Resistance:	28 days @ 20 °C		
Pot Life :	45 minutes @ 20 °C		

Additional Coats: Once previous coat is dry usually 3 - 4 hours @ 20° C and 45% RH

Yield at prescribed coverage rate of 0.6 – 1.2 kg/m² is 1.6 m² to 0.8 m²

Package Size: Medium / Fine - Available in 2kg and 10kg units. **Stone** - Available in 10 Kg units

Shelf Life: 6 - 12 months in unopened containers depending on storage conditions

Storage: Store product at normal room temperature in dry damp free conditions. Storage should be between 10 °C and 20 °C. Any part used kits should be completely re sealed with tape and used as soon as possible.

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Surface Preparation:

- Prior to application we recommend that the substrate is mechanically prepared to ensure that all dirt, oil, dust, foreign contaminants, laitance and any previous poorly adhered coatings are removed to ensure a trouble free bond to the substrate. The substrate to be coated has to be levelled, dry, free of dust and must have adequate tensile and compressive strength minimum 35N.
- New Cement based screeds should be allowed to cure for a minimum of 28 days.
- The area should then be primed with Politura Primer at a rate of 150 g/m² depending on substrate absorbency (please refer to the technical data sheet). On highly absorbent surfaces it may be necessary to add a first coat of primer diluted 1:1 with clean water. Tests should be carried out prior to application.
- Ensure the primer is completely dry before the application of the first coat of Politura, (please refer to the technical data sheet).

Mixing Politura Medium / Fine / Stone

- Politura is a single dry component, (supplied in 10Kg tubs) large enough to accommodate the product and mixing water.
- Carefully open the container. Add about 2.5 litres of the required 3.2 – 3.8 litres of water (depending on Politura Grade and consistency required) into the product. **Please note water must be added to Politura not the other way around to ensure a lump free mix.**
- Add the water gradually to the powder while continually mixing with a suitable mixing paddle (Achtis vortex toothed paddle).
- Once all the water is in the mixing bucket continue to mix at a slow speed, 200-400rpm, for a minimum of 3 minutes adding the remaining 30% of water to consistency required by the applicator. When mixing multiple kits, the same volume of water should be used to ensure uniform colour and texture.
- Replace the lid and leave to stand for a minimum 3 minutes pre-reaction time.
- After 3 minutes thoroughly mix the product to a homogenous lump free consistency.
- Always ensure thorough mixing as improper mixing may result in product failure.
- Full kits should be mixed to maintain the ratios of cement, quartz sand and polymer resin. If part of a kit is to be used, the whole dry kit should be thoroughly premixed before carefully measuring out the required weight of product.

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Application - Textured Finish

Method

- Immediately after mixing the product apply a first coat of Politura Medium with a pool trowel or rounded spatula at a rate of 0.8 – 1.2Kg / m². The creation of a textured finish is actually the hardest to achieve as the amount of texture can be difficult for the customer to visualise. We therefore recommend that samples are provided and approved before application.
- Create a texture as per approved sample by creating movement in the surface with the trowel.
- **Optional**, sanding with 50 grit diamond pad on this finish is only necessary to remove any excessive ripples or ridges.
- Apply a second coat of Politura Medium at a rate of 0.8Kg – 1.0Kg / m².
- **Optional**, sanding again with 50 grit diamond pad on the second coat is only necessary to remove any excessive ripples or ridges.
- Thoroughly vacuum the area once dry to remove **ALL DUST** and sand grains.
- Once dry, apply the chosen sealer in accordance with relevant technical data sheets. For the application of Micro Sol Polyurethane sealer on Politura this is usually 72 hours, or 24 – 48 hours for DIA Sol and water based acrylics.
- Remember to always maintain a wet edge when applying Politura and sealers.
- **The recoat windows and preparation guidelines must be strictly adhered to.**

Sealer Options

- DIA Sol Impregnating sealer, 1 or 2 coats to achieve 0.2 – 0.25Kg / m²
- Micro Sol Satin Matt Sealer @ 0.14Kg / m²
- Micro Sol PT R10 Matt Slip Resistant Sealer @ 0.14Kg / m²
- APU 47 High Gloss SL Sealer @ 0.30Kg / m² (**primer required**)

Please refer to relevant technical data sheets prior to application.

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Application - Salt and Pepper

Method

- Immediately after mixing the product apply a first coat of Politura Medium with a pool trowel or rounded spatula at a rate of 0.8 – 1.2Kg / m². A pool trowel or rounded spatula should be used to reduce ridges in the application and save time on sanding. Try to achieve as smooth and uniform finish as possible.
- **Optional**, sand with 50 grit diamond pad on this finish to remove any ripples or ridges and give a smooth finish then thoroughly vacuum.
- Apply a second coat of Politura Medium at a rate of 0.8Kg – 1.2Kg / m² taking care to achieve the desired effect. If chatter marks, trowel marks or burnishing etc are required in the final finish they should be applied in this coat.
- Sand with 50 - 100 grit diamond pad on the second coat to remove all ripples or ridges. If required sand further.
- Thoroughly vacuum the area once dry to remove **ALL DUST** and sand grains.
- Once dry apply the chosen sealer in accordance with relevant technical data sheets. For the application of Micro Sol Polyurethane sealer on Politura this is usually 72 hours, or 24 – 48 hours for DIA Sol and water based acrylics.
- Remember to always maintain a wet edge when applying Politura and sealers.
- **The recoat windows and preparation guidelines must be strictly adhered to.**

Sealer Options

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- Micro Sol Satin Matt Sealer @ 0.14Kg / m²
- Micro Sol PT R10 Matt Slip Resistant Sealer @ 0.14Kg / m²
- APU 47 High Gloss SL Sealer @ 0.30Kg / m² (**primer required**)

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Application - Smooth Polished

Method

- Immediately after mixing the product apply a first coat of Politura Medium with a pool trowel or rounded spatula at a rate of 0.8 – 1.2Kg / m². A pool trowel or rounded spatula should be used to reduce ridges in the application and save time on sanding. Try to achieve as smooth and uniform finish as possible.
- Sand with 50 grit diamond pad on this finish to remove any ripples or ridges and give a completely smooth finish then thoroughly vacuum.
- Apply a second coat of Politura Medium at a rate of 0.8Kg – 1.0Kg / m² taking care to achieve the desired effect. If chatter marks, trowel marks or burnishing etc are required in the final finish they should be applied in this coat. Increased burnishing and ultra-smooth finishes can be achieved by allowing your work to dry slightly and then using a stainless-steel pool trowel and minimal water to polish the surface as you work your way over the floor or by a second applicator following behind.
- Sand with 50 - 100 grit diamond pad on the second coat to remove all ripples or ridges.
- Thoroughly vacuum the area once dry to remove **ALL DUST** and sand grains.
- **Optional**, to achieve the desired effect without micro pores, apply a tight coat of Politura Smooth to “fill” any blemishes at a rate of approximately 100g / m².
- A final sanding of the surface can then be carried out with 400 – 2000 grit, as required, to give a smooth polished effect.
- Once dry this surface can be sealed with DIA Sol or BI SOL, or water based acrylics, apply sealer in accordance with relevant technical data sheets.
- After sealing with an impregnation solution, the surface can be re-polished with 800 – 2000 grit sanding screen or a polishing pad.
- Remember to always maintain a wet edge when applying Politura and sealers.
- **The recoat windows and preparation guidelines must be strictly adhered to.**

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Application - Smooth Linen

Method

- Immediately after mixing the product apply a first coat of Politura Medium with a pool trowel or rounded spatula at a rate of 0.8 – 1.2Kg / m². A pool trowel or rounded spatula should be used to reduce ridges in the application and save time on sanding. Try to achieve as smooth and uniform finish as possible.
- **Optional depending on substrate condition** apply a second coat of Politura Medium as above.
- Sand with 50 grit diamond pad on this finish to remove any ripples or ridges and give a completely smooth finish then thoroughly vacuum.
- Apply a coat with Politura Fine at a rate of 0.8Kg – 1.0Kg / m² taking care to achieve the desired effect. If trowel marks or burnishing etc are required in the final finish they should be applied in this coat.
- **Optional** second coat with Politura Fine at a rate of 0.6Kg – 0.8Kg / m² taking care to achieve the desired effect. If trowel marks or burnishing etc are required in the final finish they should be applied in this coat.
- Sand with 180 – 400grit to desired finish. For a polished finish apply DIA sol and polish with a buffing pad.
- Thoroughly vacuum the area once dry to remove **ALL DUST** and sand grains.
- Once dry this surface can be sealed with Micro Sol, DIA Sol, BI SOL or water based acrylics, apply sealer in accordance with relevant technical data sheets.
- Remember to always maintain a wet edge when applying Politura and sealers.
- **The recoat windows and preparation guidelines must be strictly adhered to.**

Sealer Options

- DIA Sol Impregnating sealer, 1 or 2 coats to achieve 0.2 – 0.25Kg / m²
- Micro Sol Satin Matt Sealer @ 0.14Kg / m² (**may require primer depending on sanding, seek technical support**)
- Micro Sol PT R10 Matt Slip Resistant Sealer @ 0.14Kg / m² (may require primer)
- APU 47 High Gloss SL Sealer @ 0.30Kg / m² (**primer required**)

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Application – Cloudy (Subtle Movement)

Method

- Immediately after mixing the product apply a first coat of Politura Medium with a pool trowel or rounded spatula at a rate of 0.8 – 1.2Kg / m². A pool trowel or rounded spatula should be used to reduce ridges in the application and save time on sanding. Try to achieve as smooth and uniform finish as possible.
- Sand with 50 grit diamond pad on this finish to remove any ripples or ridges and give a completely smooth finish then thoroughly vacuum.
- Apply a second tight coat of Medium at a rate of 0.6 – 0.8Kg / m² Leaving no trowel marks and lightly sand this surface with a 50 grit diamond pad.
- Apply a coat of Politura Fine at a rate of 0.8Kg – 1.0Kg / m² taking care to leave as few trowel marks as possible. Sand with a 180 – 400 grit.
- **Optional** second coat with Politura Fine at a rate of 0.5Kg – 0.6Kg / m² leaving no trowel marks.
- Sand with 180 – 400grit to desired finish. For a polished finish apply DIA sol and polish with a buffing pad.
- Thoroughly vacuum the area once dry to remove **ALL DUST** and sand grains.
- Once dry this surface can be sealed with Micro Sol, DIA Sol, BI SOL or water based acrylics, apply sealer in accordance with relevant technical data sheets.
- Remember to always maintain a wet edge when applying Politura and sealers.
- **The recoat windows and preparation guidelines must be strictly adhered to.**

Sealer Options

- DIA Sol Impregnating sealer, 1 or 2 coats to achieve 0.2 – 0.25Kg / m²
- Micro Sol Satin Matt Sealer @ 0.14Kg /m² (**may require primer depending on sanding, seek technical support**)
- Micro Sol PT R10 Matt Slip Resistant Sealer @ 0.14Kg /m² (may require primer)
- APU 47 High Gloss SL Sealer @ 0.30Kg / m² (**primer required**)

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Application – Stone

Method

- Immediately after mixing the product apply a first coat of Politura Medium with a pool trowel or rounded spatula at a rate of 0.8 – 1.2Kg / m². A pool trowel or rounded spatula should be used to reduce ridges in the application and save time on sanding. Try to achieve as smooth and uniform finish as possible.
- Sand with 50 grit diamond pad on this finish to remove any ripples or ridges and give a completely smooth finish then thoroughly vacuum.
- Apply a second tight coat of Medium at a rate of 0.6 – 0.8Kg / m². Leaving no trowel marks and lightly sand this surface with a 50 grit diamond pad.
- Apply a coat of Politura Stone at a rate of 0.8Kg – 1.0Kg / m² taking care to leave as few trowel marks as possible. Sand with a 180 – 400 grit.
- **Optional** second coat with Politura Stone at a rate of 0.5Kg – 0.6Kg / m² leaving no trowel marks.
- Sand with 180 – 400grit to desired finish. For a polished finish apply DIA sol and polish with a buffing pad.
- Thoroughly vacuum the area once dry to remove **ALL DUST** and sand grains.
- Once dry this surface can be sealed with Micro Sol, DIA Sol, BI SOL or water based acrylics, apply sealer in accordance with relevant technical data sheets.
- Remember to always maintain a wet edge when applying Politura and sealers.
- **The recoat windows and preparation guidelines must be strictly adhered to.**

Sealer Options

- DIA Sol Impregnating sealer, 1 or 2 coats to achieve 0.2 – 0.25Kg / m²
- Micro Sol Satin Matt Sealer @ 0.14Kg / m² (**may require primer depending on sanding, seek technical support**)
- Micro Sol PT R10 Matt Slip Resistant Sealer @ 0.14Kg / m² (may require primer)
- APU 47 High Gloss SL Sealer @ 0.30Kg / m² (**primer required**)

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Maintain temperatures and humidity within the recommended ranges during the application and during the curing process. **Before application the product must be at the same temperature as the room in which it will be applied. The floor temperature must not be any more than 3 °C lower than the room temperature unless this will be at dew point.** If a dew point situation occurs the product may spot and lead to possible failure or compromised product characteristics.

New under floor heating must have been turned on for at least 28 days then turned off prior to application.

Damp surface and or Vapour pressure present.

1. Prime the prepared substrate with EP 72 Vapour Barrier at recommended coverage rate (refer to EP 72 TDS).
2. Prime again with EP 72 Vapour Barrier and sand to rejection. Both coats together must achieve a minimum of 900 g/m² (refer to EP 72 TDS).

These two stages should be considered as a separate process to address the moisture in the slab.

PRODUCT PERFORMANCE DATA

Shore D Hardness	83
Viscosity	Mixed Parts 2200 -3700 mpas
Solids Content	>99%
Density	1.3 – 1.5 kg per/ litre
Taber Abrasion Test	@3300 ≤ 1 g
Compressive Strength	46 N/mm ²
Bending Tensile Strength	10 N/mm ²

Safety Information

- Before application of any resin the appropriate SDS must be read and strictly adhered to. Resins contain sensitising agents which can lead to severe allergic reactions.
- The Politura range is formulated without MXDA and several other of the most severe agents for sensitisation, however all safety precautions as outlined in the SDS must be carried out.

Maintenance

Please read the information sheet. Correct maintenance is vital to ensure optimum performance from your floor for years to come.

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