CEMHER

SUBSTRATE GUIDE

CEMHER MICRODUR MICROCEMENT

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CEMHER Microcement is a thin surface coating that requires a smooth, well-prepared substrate to ensure optimal durability and aesthetic quality. This guide is intended for applicators, contractors, builders, architects, clients, and trades and those responsible for confirming that the substrate meets the necessary compatibility and preparation standards for CEMHER®.

Proper substrate preparation is essential for achieving a lasting, visually appealing Microcement finish. The substrate must be smooth, strong, and free from any risk of interfering materials. It is crucial to thoroughly review the substrate preparation instructions provided before Microcement application.

Suitable Substrates	Interior Applications: Gyprock/Plasterboard, Villaboard, FC, Render, Painted Surfaces, MDF, Pine, Hebel, Porcelain/Tiles, Concrete, Cement and Waterproofing
Substrate Requirements	Substrates must have a compressive strength of minimum 25N/mm2 and a tensile strength of 1.5N/mm. Substrates must be well consolidated and have a moisture content reading below 5%. Ensure surfaces are fully cured and dry Please work to the manufacturer's recommended lead times for freshly laid surfaces Microcement should not be laid on substrates less than 3 on the MOHs hardness scale
General Substrate Guidance	Ensure the surface is dry, clean, and free from dust, grease, or dirt. For painted surfaces, remove any flaking areas. Fill any joins, cracks to ensure the substrate is smooth flat & level Level and prepare the surface to enhance performance and reduce material Prepare surfaces to be flat, smooth, and stable, with no expected movement or settlement. Allow 3-4mm height allowance for the final finish. Ensure render, concrete, or new screeds are fully dry (28 days) before applying. Prepare surfaces to be flat, smooth, and stable, with no expected movement or settlement. Do not apply over fresh or new substrates that have not completely cured Prevent water ingress or exposure during & after installation. CEMHER Microcement is not buildable and is not suitable for filling large gaps, holes, cracks or joins in the substrate. The area will need to be completely cleared for the Microcement installation Remove or leave off skirting boards & kick-boards prior to work commencing Ensure there are no underlying waterproofing issues or repairs that need to be address prior to the application of microcement Follow architect and engineer-specified expansion joints; do not fill these completely

Level Surfaces	Surfaces must be flat or at the desired level before microcement application. For uneven floors, use an acrylic primer and self-leveller to achieve a level surface, as microcement is not buildable. Allow only 3-4mm for the microcement to reach the final for full systems height. (refer to technical drawings) Ensure the surface is fully cured prior to microcement application. When applying over tiles, fill the joins with Primer 100 + Microdur® Base and allow 24 hours to cure before proceeding with the system.
Surface Hardness	Microcement should not be laid on substrates less than 3 on the MOHs hardness scale Surfaces should be free from dust and excessive laitance
Expansion Joints	Where two separate subfloors meet, especially if laid at different times or with intentional expansion joints, movement is likely along the join. Movement in subfloors can cause microcement to crack along joints, as microcement is an overlay system and does not hold during significant substrate movement despite its superior flexibility. To minimise cracking from cold joints, concrete and screed subfloors should ideally be poured in a single pour, incorporating expansion/control joints as needed. For floors with existing joints, we recommend installers insert a threshold to separate the two surfaces, applying microcement up to the threshold on either side. Installers should respect and work with expansion joints, following appropriate application methods to ensure durability
Moisture	All surfaces will need to have less than 5% moisture content prior to install Ensure surfaces are fully cured and dry Please work to the manufacturer's recommended lead times for freshly laid surfaces Apply a consolidator if moisture levels are high to prevent bleed-through.
Water Tight	Ensure there is no risk of water exposure to the microcement during installation, including from open windows, doors, or rising damp. Apply a waterproofing membrane if there is any risk of substrate moisture or rising damp before beginning the installation.

Substrate Preparation	
New Gyprock & Plasterboard	For newly plastered walls, prepare the surface to a smooth finish as per standard paint-ready specifications. Apply a sealer undercoat to mitigate banding effects and ensure strong primer adhesion.
Pre-painted Surfaces	For pre-painted surfaces, remove any flaking areas Ensure the surface is in good condition and any holes or patches are repaired. Apply a sealer undercoat over any patches
Waterproofing	Waterproofing should be applied as flat and smooth as possIble to avoid any clumps or dags as this may impact the final finish. Waterproofing membrane must meet Aus standard
Cement & Render	All cementitious substrates must be prepared to a flat, smooth, and stable condition, free from structural imperfections. Substrate moisture content must be verified at less than 5% prior to application. Over coating too soon could cause reaction. Newly constructed surfaces require a minimum curing period of 28 days to ensure moisture levels drop (structural integrity) Substrates must exhibit no signs of crumbling, de-lamination If you are experiencing suction or discolouration on rendered walls. A green render sealer can be applied to counter this. Microne is not designed to fill cracks as it is a thin product. Address substrate holes with an appropriate filler product to ensure substrate stability. Cracks exceeding 3mm in width must be fully opened and structurally reinforced using helix stitching bars. For cracks under 3mm, stitching may not be necessary and can be addressed with an appropriate filler product to ensure substrate stability. Render, concrete, and screeds are porous substrates that can increase primer absorption, potentially reducing the expected spread rate. Additional primer may be required to achieve uniform coverage and optimal adhesion on these surfaces.
MDF & Pine	For MDF surfaces, ensure the substrate is smooth and level. All joints should be properly filled, and screws must be fully secured and countersunk to prevent surface imperfections.

Substrate Preparation	
Exisiting Tiles	Existing tiles are required to be sound Any loose or drummy tiles will need to be removed and relayed or filled with a commercial grade floor leveller Any suspected waterproofing issues should be addressed prior to commencing microcement (speak with the homeowner) Fill all grout lines with Primer100 & MICRODUR® BASE so that the surface is completely level 24hours prior to starting the full system. Additional product may be required when filling gaps or uneven substrates Grind the tile face properly to create a adhesion key
Hebel	Ensure the surface is well consolidated, with all cracks and joins thoroughly filled with hebel glue or equivalent. Note that Hebel, being a porous substrate and may reduce the primer's spread rate, you may require more primer than standard surfaces.
Other on Advice	For guidance on applying CEMHER Microdur Microcement over unlisted substrates and to obtain specification approval, please contact CEMHER for substrate compatibility assessment and preparation requirements
Disclaimer	This substrate Guide is the property of CEMHER and may not be modified, altered, or reproduced without written consent from CEMHER. This document provides guidance based on rigorous testing by KILNHER and accredited laboratories. CEMHER products perform as specified when applied in strict accordance with the latest TDS, supplier product application procedures, and substrate preparation guidelines. This document does not guarantee that a product or product system is suitable for all projects or site conditions. Product performance is dependent on factors including: • Substrate condition and compatibility • Proper application by a qualified and experienced applicator • Compliance with Australian Building Codes and relevant standards • Environmental and climatic conditions at the time of application CEMHER is not liable for substrates that fail to meet specified compatibility, suitability, or compliance requirements. Last Updated: 19/01/2025