



FORCRETE.

EVERY SURFACE MATTERS

System Data Sheet

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Industry Leading Microcement System

Highly innovative Microcement - 100% waterproof before sealers

Overview

Forcrete offers New Zealand's most advanced range of decorative Microcement and seamless surface coating systems. Developed through extensive on-site experience and tested across thousands of square metres , Forcrete systems deliver high-performance, seamless finishes for floors, walls, and joinery applications.

Technology

Forcrete's epoxy-resin hybrid formulation sets a new standard for strength and durability. Solvent-free and low in VOCs, the system provides maximum performance with minimal environmental impact—designed for reliability across residential, commercial, and hospitality projects.

Recommended Applications

- Interior floors and walls
- Wet areas (bathrooms, showers, splashbacks)
- Joinery and furniture
- Feature walls and architectural details
- Hospitality and retail spaces
- Commercial applications

Performance Characteristics

- High bond strength and flexibility
- Fully waterproof prior to sealing
- UV stable (topcoat dependent)
- Resistant to abrasion and impact
- Seamless, joint-free finish
- Compatible with underfloor heating
- Low VOC / solvent-free system

Features & Benefits

Waterproof by Design

- Every layer of the Forcrete system is inherently waterproof—even prior to sealing.
- Eliminates reliance on solvent-based lacquers for water resistance.
- Suitable for wet rooms, bathrooms, showers, and submerged environments such as bathtubs.

Advanced Resin Technology

- Hybrid resin formulations deliver exceptional strength, flexibility, and adhesion.
- Solvent-free and low VOC (below 80 g/L), supporting sustainable construction.
- Non-toxic and safe for indoor use.

Seamless Application

- Fully seamless finish with no welds or grout lines.
- Control joints can be integrated into the subfloor as required.
- Suitable for floors, walls, and joinery for a continuous design flow.

Ultra-Thin Profile

- Applied at just 3 mm thick.
- Can be installed over existing materials such as tile, stone, or marble, minimising demolition and waste.

High Aesthetic Flexibility

- Available in a wide range of application styles, colours, and textures.
- Finish options include natural matt or high-polish sheens.
- Customisable to suit residential, commercial, and hospitality design briefs.

Durability & Performance

- Abrasion Resistance: $\leq 200 \text{ mm}^3$ (EN 13892)
- Compressive Strength (28 days): $\geq 50 \text{ N/mm}^2$
- Adhesion to Concrete (28 days): $> 2 \text{ N/mm}^2$
- Static Modulus of Elasticity: $\leq 1230 \text{ MPa}$

Hygienic & Food-Safe

- Sealer technology certified safe for residential and commercial kitchen surfaces.
- Non-porous, easy to clean, and resistant to staining.



Full Bathroom Application – Mount Maunganui – NZ

MICRO- QUARTZ SYSTEM

MICRO-QUARTZ

MICRO-QUARTZ is an ultra-durable, fully seamless surface coating designed for a wide range of environments and applications.

Inherently waterproof at every layer, it does not rely on solvent-based lacquers or varnishes for water resistance—making it the ideal solution for modern bathrooms, wet rooms, and high-humidity spaces.

Engineered for both performance and visual continuity, MICRO-QUARTZ delivers a robust, minimal finish that supports sophisticated, uninterrupted design.

Common Applications

MICRO-QUARTZ is suitable for a broad range of residential, commercial, and institutional environments, including:

- Lobbies & Reception Areas
- Kitchens & Splashbacks
- Bathrooms & Wet Rooms
- Living & Bedroom Spaces
- Offices & Meeting Rooms
- Hotels & Hospitality Suites
- Healthcare & Cleanrooms
- Showrooms & Retail Interiors
- Education Facilities
- Restrooms & Changing Areas



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MICRO-QUARTZ

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PRODUCT DESCRIPTION

Two component epoxy resin hybrid cement topcoat. Large grain, extremely strong with a more rustic finish. Applied using a trowel and float technique to distribute the grains. Always pore-filled using FORSHIELD-FX.

MATERIAL FEATURES

- Two component epoxy resin
- Easy application
- Waterproof
- High Compression strength
- Internal / External

KEY INFORMATION



MIX TIME
3 MINUTES



WORKING
TEMP



TROWEL
APPLICATION



FROST FREE



SHELF LIFE
12 MONTHS



WEAR
GOGGLES



WEAR
GLOVES

TECHNICAL DATA

Product type: Epoxy Cement

User time: 60 minutes

Appearance:

Part A – Coloured Paste

Part B – Liquid

Chemical Nature: Epoxy Resin

Mix Ratio: A : B
9.2 : 0.8

Shelf Life: 12 Months

Static modulus of elasticity @ 28 days = ≤ 1230 MPa (ISO178)

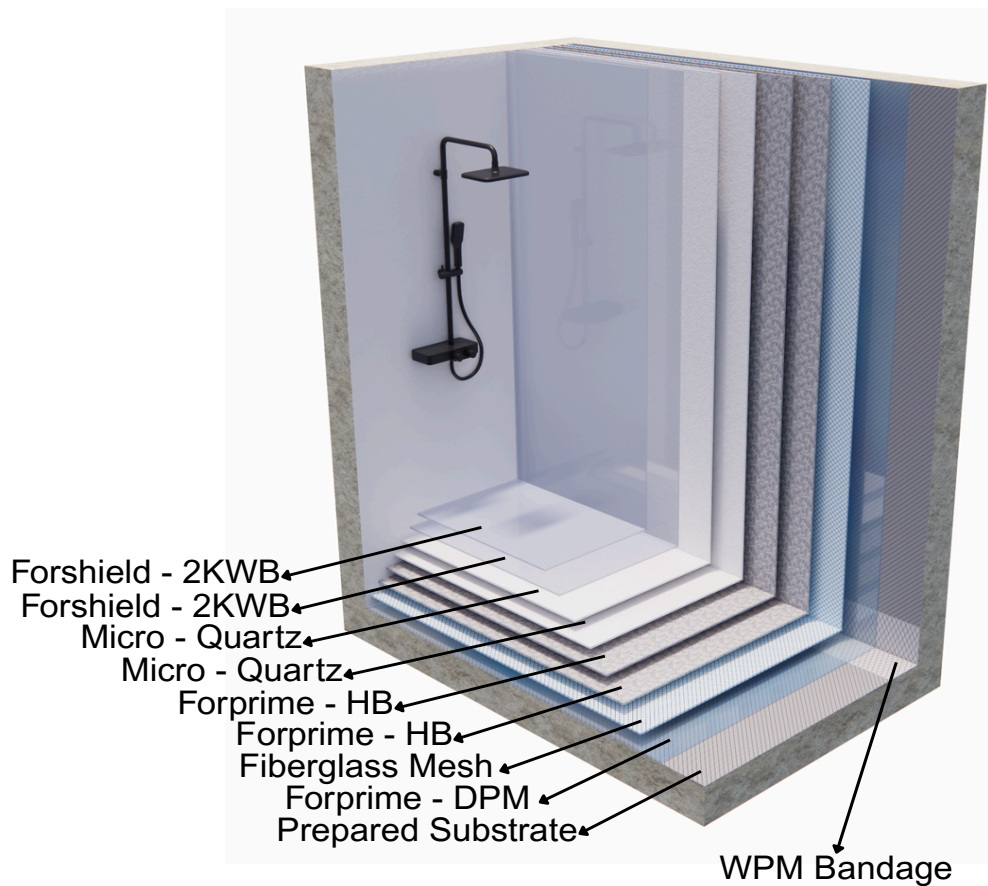
Resistance to Abrasion = ≤ 200 mm³ (EN 13892)

Compressive Strength (28 days) = ≤ 50 N/mm²

Adhesion to concrete (28 days) = > 2 N/mm²

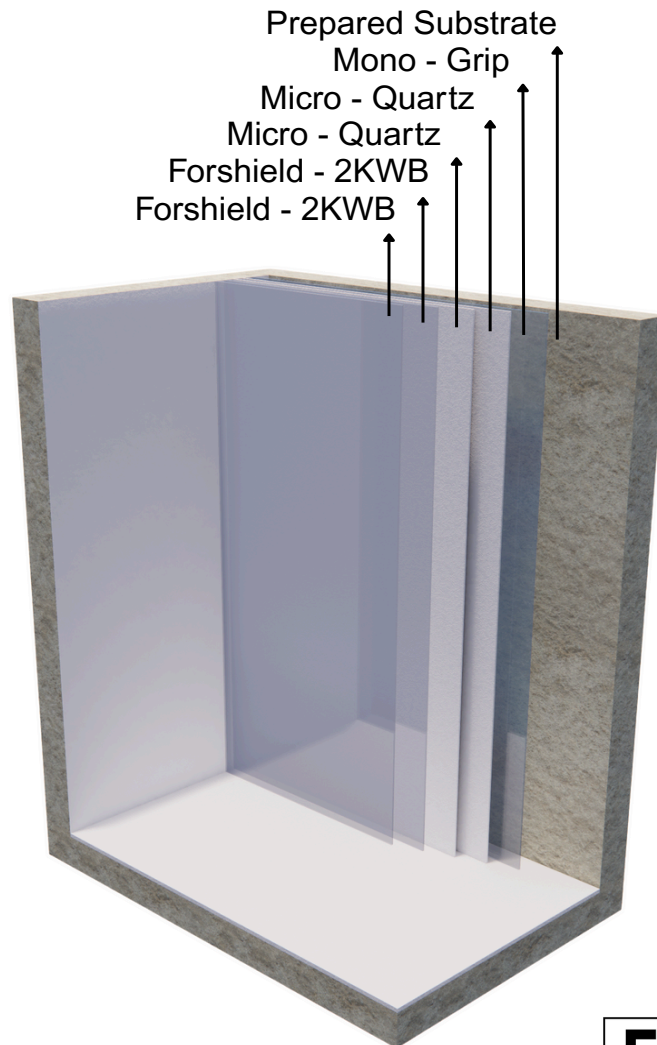
Consumption: 400g - 500g/m²
Thickness: 0.4 - 0.5mm per layer

Belts and Braces Floor



1. Suitable substrate – Sand and cement screed, liquid screed, concrete, some timber
2. Days required to install – 6 to 7 days
3. Crack protection – 160g Fibreglass mesh
4. Environment – Residential, Commercial, Heavy Commercial
5. Underfloor heating compatible –

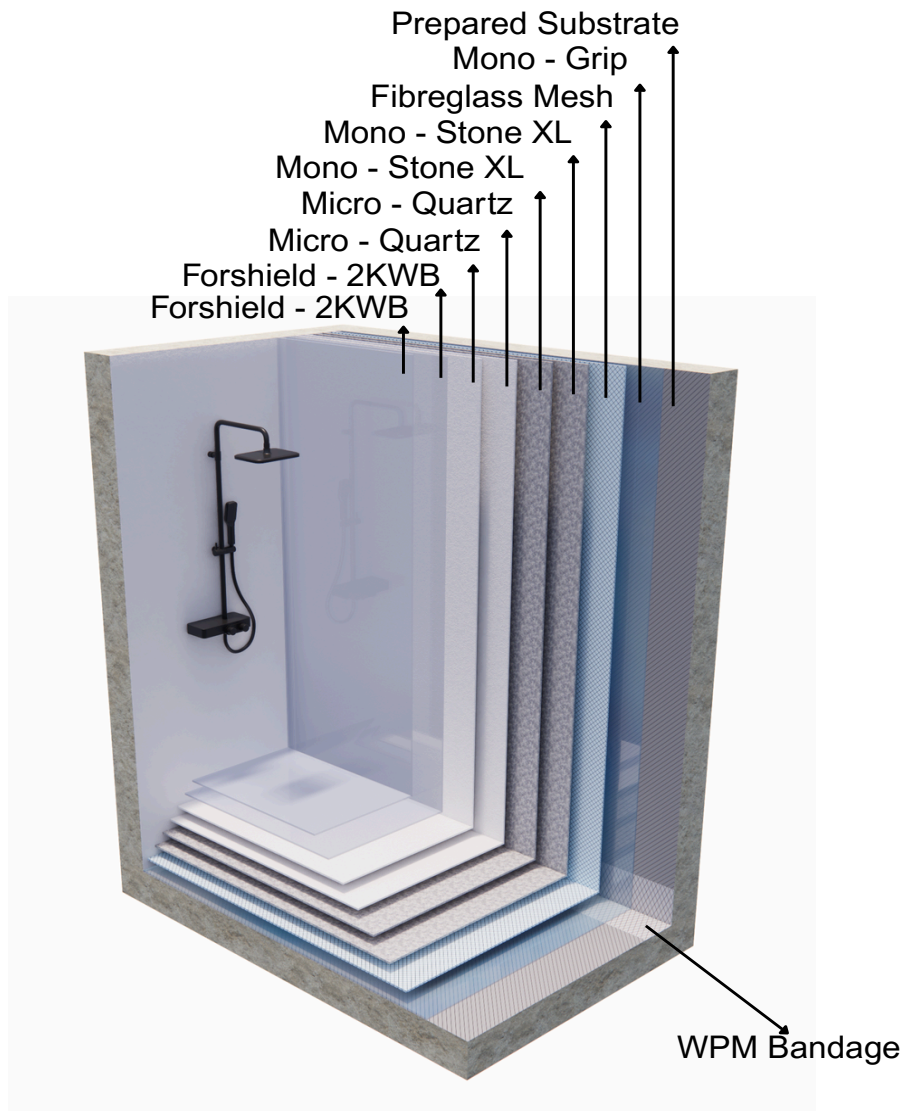
Fast Wall



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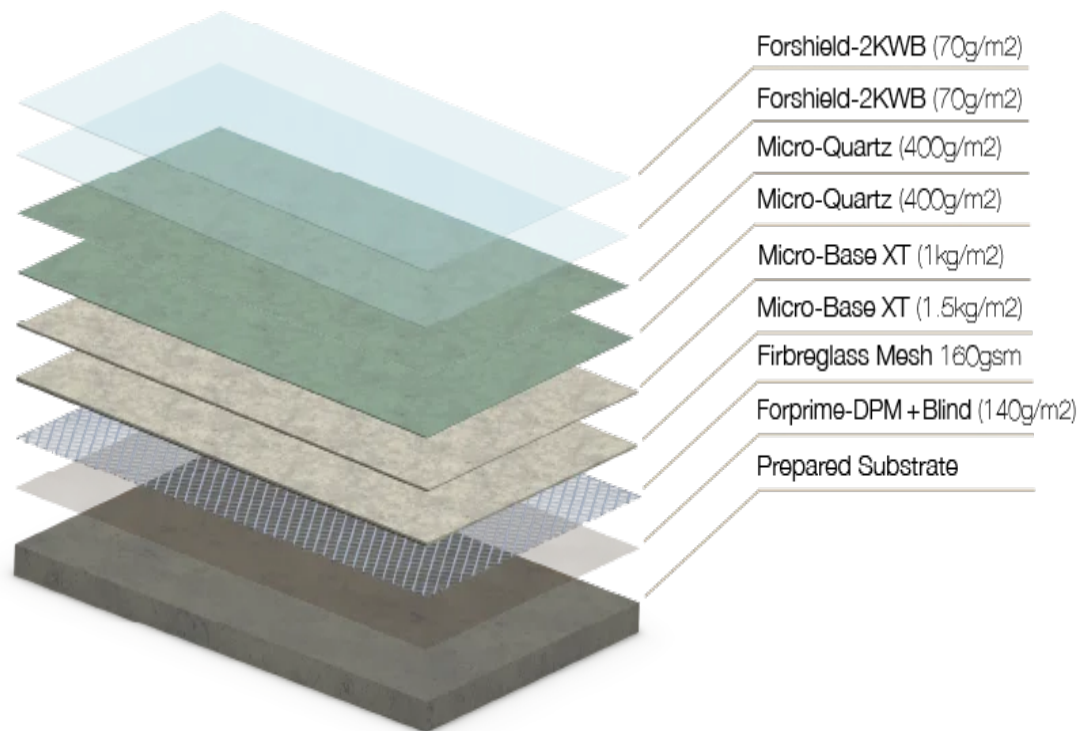
1. Suitable substrate – Plaster board and skim
2. Days required to install – 4 to 5 days
3. Crack protection – None
4. Environment – Residential, Commercial

Belts and Braces Wall



FORCRETE.
EVERY SURFACE MATTERS

1. Suitable substrate – Plaster board and skim, Dryline, Cement board
2. Days required to install – 6 to 7 days
3. Crack protection – 160g Fibreglass mesh
4. Environment – Residential, Commercial, Heavy Commercial



System Build Up

Worktop/Vanity/Sink/Bath

1. Suitable substrate – Tiles, MDF, Plywood
2. Days required to install – 6 to 7 days
3. Crack protection – 160g Fibreglass mesh
4. Environment – Residential, Commercial, Heavy Commercial

DATA – EN13813:2002 DECLARATION OF CONFORMITY

Abrasion Resistance	weight loss < 3000 mg
Permeability to CO ₂	s > 50 m
Water vapour permeability	class II
Capillary absorption and permeability to water	w < 0.1 kg/(m h)
Thermal compatibility	≥ 2.0 (1.5) N/mm ²
Resistance to severe chemical attack	reduction in hardness < 50 %
Impact resistance	class I
Adhesion strength by pull-off test	≥ 2.0 (1.5) N/mm ²
Reaction to fire	Class B- s1
Skid resistance	class III
Wear resistance	≤ AR 1
Bond strength	≥ B 1.5
Impact resistance	≥ IR 4

*Please note that the data and information given above has been calculated as guidelines in the laboratory and from real life experience, and are therefore not binding.

It must be considered that the nature of site mixed and applied products means that not every individual case or circumstance can be considered.

Waterproofing

Waterproof by design. Forcrete's MICRO-QUARTZ system is a fully integrated waterproof tanking plaster suitable for high-moisture and submerged environments.

Forcrete as a Tanking System

Unlike traditional cement-based products, MICRO-QUARTZ is a water-based epoxy resin system that cures to form a completely waterproof barrier. The absence of cement eliminates capillary action, preventing water absorption and long-term degradation. Proven across thousands of installations, Forcrete offers durable, seamless protection in even the most demanding conditions.

Key Features

- **Waterproof Performance**
Forms a complete waterproof barrier across all layers—no additional membranes or lacquers required.
- **No Capillary Action**
Cement-free composition prevents water migration through surface layers.
- **Long-Term Durability**
Guaranteed waterproof protection for a minimum of 15 years with correct installation and care.
- **Seamless & Low Maintenance**
Creates a joint-free, easy-to-clean surface resistant to mould, mildew, and water damage.
- **Internal & External Suitability**
Ideal for wet rooms, bathrooms, showers, bathtubs, and other submerged or high-humidity applications.

Waterproof Membrane – WPM

To meet New Zealand and Australian waterproofing standards, MICRO-QUARTZ must be applied over a certified waterproofing membrane (WPM).

Forcrete NZ Ltd specifies and recommends **ARDEX WPM155** or **ARDEX WPM002**, which are BRANZ-appraised systems compliant with AS/NZS standards.

ARDEX has independently tested and approved the compatibility of their systems with Forcrete's MICRO-QUARTZ, confirming adhesion and long-term performance. All Ardex products must be installed in accordance with their datasheets and BRANZ appraisal requirements.

Refer to the attached **pull-off test report (0.92 MPa average adhesion)** and **ARDEX certification letter** for further technical assurance

Code Compliance Statement – E3/AS1 (Internal Moisture)

When installed over a BRANZ-appraised waterproofing membrane such as **ARDEX WPM155** or **WPM002**, the Forcrete Micro-Quartz system can be used in accordance with the **Acceptable Solution E3/AS1** of the **New Zealand Building Code – Clause E3 Internal Moisture**.

Under E3/AS1, finishes in wet areas must be **impervious and easily cleanable**. The Forcrete system meets these requirements by:

- Providing a fully **impervious, seamless surface**, as defined in E3/AS1 (“that which does not allow the passage of moisture”)
- Being **non-cementitious**, eliminating capillary absorption
- Forming a chemically cured, resin-based waterproof barrier
- Ensuring additional waterproof protection across all layers when used in conjunction with an approved membrane

Easily Cleanable Surface:

The cured Forcrete finish is smooth, non-porous, and free from grout lines or joints, making it resistant to mould and mildew build-up. Routine cleaning can be performed with pH-neutral cleaners, supporting hygiene requirements in both residential and commercial wet areas.

This system must be installed by certified Forcrete applicators. A **Producer Statement** can be provided upon request to support compliance.

Warranty

Forcrete Warranty

At Forcrete, we are committed to delivering premium-quality surface coating systems that offer long-term durability, performance, and design flexibility. Our warranty reflects this commitment and provides assurance that, when installed and maintained in accordance with Forcrete's official guidelines, the system will perform to the highest standard.

This warranty confirms the reliability of our product's waterproofing capabilities, material integrity, and surface performance in both residential and commercial environments.

15-Year Waterproof Guarantee

Forcrete offers a **15-year waterproof warranty**, covering the integrity of the system's moisture barrier. This guarantee applies when:

- The full system (including approved membrane and components) is installed by a **certified Forcrete applicator**
- Maintenance is performed as outlined in the Forcrete care guide
- The system is used under standard residential or commercial conditions

This guarantee reinforces Forcrete's status as a long-term solution for seamless wet area and interior surface applications.

Unlike traditional cement-based products, Micro-Quartz is formulated from water-based epoxy resin, and once chemically cured does not allow water to pass through its layers. Micro-Quartz does not contain any cement and therefore has no capillary action. Micro-Quartz is installed within thousands of bathrooms around the globe per year and categorially cannot become damaged from contact with water.

We guarantee the waterproof properties of Forcrete for a minimum of **15 years**, subject to the correct maintenance and aftercare.

If you require further clarification, please feel free to contact me on +44 7472483348.

Kind Regards,



George Hunt

Director

Forcrete Ltd, 5 Philip Ford Way, Silfield Road, Wymondham, NR18 9AQ
Company number: 12939026

Slip Resistance Overview

Forcrete microcement surfaces are tested for slip resistance in accordance with **NZS 4586:2004**, ensuring suitability for residential and commercial applications, including wet areas. Tests are performed using the **Wessex Pendulum Test** (Slider 96), which evaluates the dynamic friction of the surface under wet conditions.

Verified Test Results – NZ Certified

An independent slip resistance test was conducted by **SlipSafe New Zealand** (Report ID: AKL-22584-1, April 2025).

Forcrete Slip Resistance Summary

Tested to NZS 4586:2004 – Wet Pendulum Test (Slider 96, 4S Rubber)

Finish	Surface Description	Mean PTV	Slip Risk Category (HSE)
Smooth	Fossil tone, fine trowel texture	43	Low
Medium	Sand yellow tone, light texture	52	Low
Coarse	Beige grey tone, pronounced texture	52	Low

Key Features

- Suitable for both **wet and dry conditions**
- Tested using **Slider 96 (soft rubber)** – the standard for barefoot and soft-soled traffic areas
- Surface remains **seamless and elegant** while exceeding safety standards
- Meets requirements for **NZBC Clause D1 (Access Routes)** in relation to slip resistance in public and private spaces

APPLICATION STYLES

MICRO-QUARTZ is available in 4 different styles, all of which are 100% waterproof BEFORE the application of sealers:

COARSE – Highly durable, large grain, natural stone finish. Suitable for high traffic walls, floors and bathrooms. Please Note – Coarse refers to the size of grain within the product and not the surface texture, Micro-Quartz (Coarse) can be diamond sanded so that it is smooth to the touch.

MEDIUM – Understated, simplistic finish with subtle tones and minimal movement. Micro-Quartz (Medium) is suitable for walls, bathrooms, and medium traffic floors.

SMOOTH – Plaster effect finish with a large range of application styles (stucco effect, smooth over coarse, two tone, natural). No visible grains, suitable for walls, bathrooms and medium traffic floors.

TROWEL- X – Highly authentic polished concrete effect. Applied by method of mechanical power trowel to give a realistic, free flowing, cream effect polished concrete finish.

All of the above styles are available in a Matt or Diamond Polished surface finish.

Colour Chart

MICRO-QUARTZ

Micro-Quartz is a highly versatile, fully waterproof coating, which is suitable for a wide range of horizontal and vertical applications. Commonly specified for bathrooms, wet rooms, walls, floors, and worktops in both residential and commercial environments.

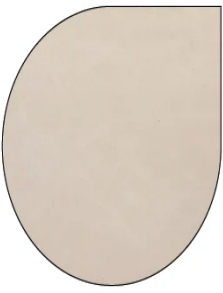
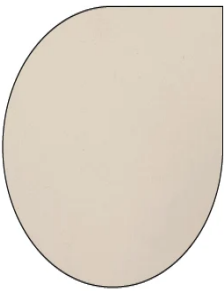

Micro-Quartz is available in three separate grain sizes, Smooth, Medium, and Coarse. Each range can be applied in several styles and techniques, each with its own unique aesthetic. Once applied, all styles can be finished in either 'Matt' or 'Diamond Polished' sheen levels.

SHEEN LEVELS EXPLAINED

Matt – High level of stain resistance, but more susceptible to scratching under point loads. Matt is commonly specified in bathroom environments for its low sheen aesthetic. Renewal of a matt surface requires sanding and re-coating of the sealer surface.

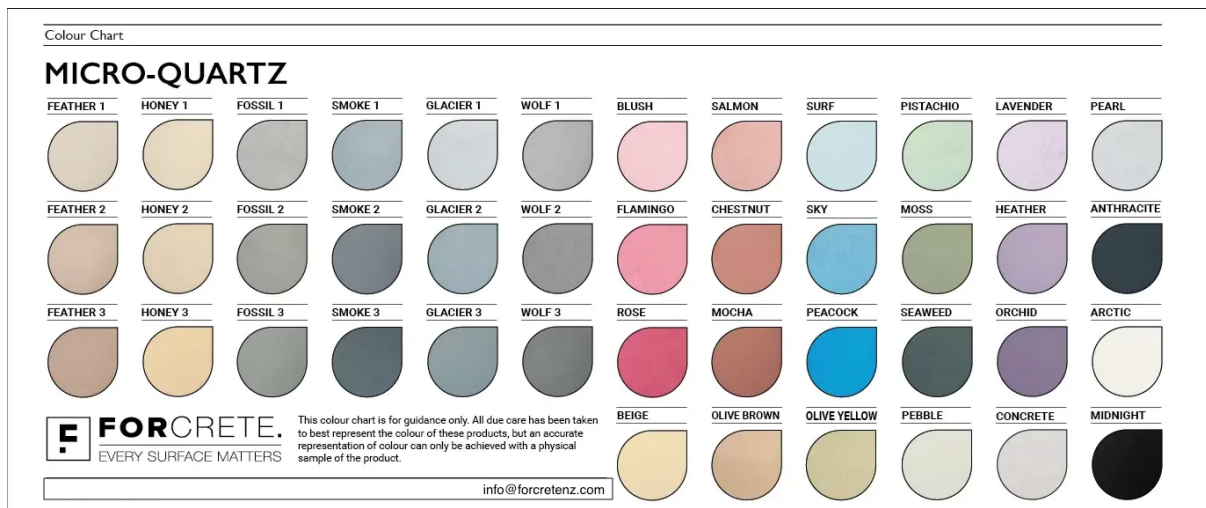
Diamond Polished – The dense, highly refined surface is extremely resistant to abrasion and scratching (MOH 7.5). However, a polished finish will stain easier if chemicals or strong colours are left on the surface for prolonged periods. Renewal of a diamond polished surface is much easier and only requires re-buffing.

Need a bespoke colour? we can also colour match to RAL, Pantone, NCS and many high-end paint manufacturers colours.

Smooth	Medium	Coarse
		
Micro-Quartz (Smooth) – Plaster Effect finish with an extensive variety of application styles such as; Stucco Effect, Smooth Over Coarse, Duo Colour, Light texture and Plain / Natural. No visible grains, suitable for walls, bathrooms, and low traffic floors. Perfect for creating a minimalist design.	Micro-Quartz (Medium) – Understated, simplistic finish with subtle tones and minimal movement. Available in a wide range of application styles, such as Plain / Natural, Light texture, Stucco Effect and Duo Colour. Micro-Quartz (Medium) is suitable for walls, bathrooms, and medium traffic floors.	Micro-Quartz (Coarse) – Highly durable, large grain, natural stone finish. Suitable for high traffic walls, floors, and bathrooms. Micro-Quartz (Coarse) can be heavily sanded so that it is smooth to the touch or lightly sanded to aid non-slip properties. Most commonly applied in 'Hand Floated' or 'Duo Colour' technique.

FORCRETE COLOURS

Forcrete offers a range of stunning bespoke colours that go beyond the typical greys and beiges.



Customizable Options

Forcrete colours are available in a range of pre-designed finishes. Additionally, custom colour options can be developed to meet specific design requirements, including bespoke shades or subtle variations for compatibility with existing decor.

Seamless Integration with Textures

All Forcrete colours are designed to work seamlessly with our textured finishes, ensuring that the interplay of light and texture enhances the vibrancy and depth of each shade.

Durability and Long-Lasting Colour

Our advanced pigment technology ensures that Forcrete finishes retain their vibrancy overtime. The coatings are UV-resistant and designed to withstand the wear and tear of daily use, making them ideal for high-traffic areas.

FORCRETE MICROCEMENT AFTERCARE

Below is a list of guidelines, which when followed will ensure Forcrete surfaces perform as intended.

Curing

- The full chemical cure / crosslink of the FORSHIELD-2KWB can take up to 30 days to complete depending on atmospheric temperatures. During this time extra care should be taken to protect the surface from heavy traffic and abrasion.
- No water should contact the surface for the first 14 days after application.
- Strictly no chemicals or cleaning agents should contact the Microcement during these 30 days.

Cleaning

- To avoid soiling of the polyurethane sealers, a periodic cleaning schedule should be undertaken.
- Washing up liquid must not be used to clean Forcrete floors as it leaves a soap residue on the surface of the Microcement. Overtime the residue builds up and discolours the floor, which often cannot be removed.
- Strictly no harsh abrasive cleaners to be used on finished surfaces. Forcrete-ECO Cleaner (natural cleaner based on plant oils) or Forcrete Multi-Purpose Cleaner should be used for everyday cleaning when required. Other PH neutral cleaners can also be used. Bleach is not recommended.
- Forcrete-Stain Remover should be used on particularly stubborn stains such as makeup or dye.
- The 'Pink Stuff' cleaner is also very efficient at removing stubborn stains. Available at Bunnings.

Underfloor Heating

- When commissioning a new underfloor heating system, the temperature should be brought up slowly over a period of days. A maximum of 3°C increase per day.
- To help prevent cracking, rapid changes in temperature and thermal shock should always be avoided.

General Care

- If Forcrete-Renovator (sacrificial surface dressing) has been applied on top of the FORSHIELD-2KWB (strongly advised) this should be maintained periodically to aid the protection and abrasion resistance of the Microcement.
- No Steam cleaners should be used on Forcrete Microcement
- Strong dyes and pigments (hair dye and fake tanning products) should not contact Microcement surfaces.
- Sharp items or point loading should always be avoided. Felt pads or sliders should be added to all furniture feet.

**For further guidance or queries regarding stain removal please
contact info@forcretenz.com**

Project References

Forcrete has been specified and installed in a wide range of residential, commercial, and hospitality projects across New Zealand, Australia, and internationally. Case studies demonstrating long-term durability, waterproof performance, and aesthetic versatility are available upon request.

Floor Application



Microcement on Floors : World of Volvo- Designcement.se, Sweden



Microcement on Floors: Beach Break Interiors, Mount Maunganui, NZ

Retail & Hospitality



Floor, Walls & Benchtop- Surf Road Cafe – Beach Break Interiors
Mount Maunganui, NZ



Walls, Floors and Furniture- Gymshark – Venetian Interiors, UK

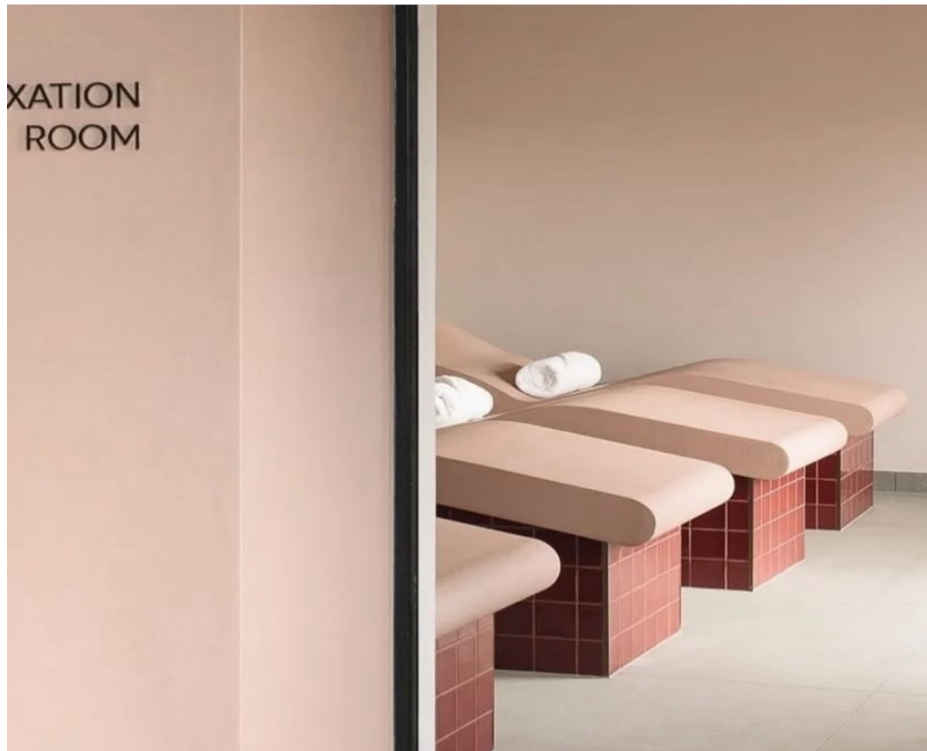
Bathroom Application



Full Bathroom: Beach Break Interiors, New Zealand



Bathroom Walls: Beach Break Interiors, New Zealand
(Winner of the HOME Bathroom of the year 2024)



Microcement in Spas: Marmo Surfaces Finishes, UK



Pool Surround- VDE Stucdesign- Ibiza

Kitchen Application



Private Residence- UK



Private Residence- Profile Plastering – UK

Furniture



Microcement Furniture: Lime & Co., New Zealand



Microcement Furniture: Lime & Co., New Zealand



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