Cementitious Micro

Description

Cementitious Micro is hard, but flexible cement-bonded, aesthetic plaster mortar for walls and floors. Extremely suitable for bathrooms, furniture, kitchen counters, patios, living rooms etc.

Cementitious Micro is uniquely recognisable for
- Being available in Ral, NCS and Sikkens colour schemes.
- Containing the highest possible impermeability of Micro BASE and Micro TOP.

The unique advantage of such high impermeability is that even when damaged, Cementitious Micro will not allow water or other cleaning fluids to seep through the top layer.

Hardening takes place by both the hydration of the mineral binding agents and the coalescing of polymers.
The extreme whiteness of this product forms the ideal basis to create coloured floor and wall finishes in conjunction with the Quartzline colour mixing system.

Also very suitable for renovation projects.

Properties

Mineral bonded – solvent free	
Extremely good mechanical strength properties	
UV stable	
Suitable for colour tinting systems	
Water resistant	
Fast hardening	
Flexible and crack resistant	
Density BASE [1] (g/cm^3)	1,90
Powder weight BASE [2] (g/cm^3)	1,50
Viscosity BASE [3] (Pa.s)	19 – 21
Density TOP [1] (g/cm^3)	1,75
Powder weight TOP [2] (g/cm^3)	1,50
Viscosity TOP [3] (Pa.s)	15-17
Application time (min.)	45
Minimum. Application temperature (ºC)	10

[1] = ISO 2811-1/+ 23ºC / 50% R.H
[2] = powder weight in the ready-mixed mortar
[3] = Brookfield, HBDV-I Prime, Spindle 72, 30 RPM @ 23°C

Form

Powder, off-white

Packaging

The Cementitious Micro BASE:

Powder packaged in 12,5 kg bags, waterborne resin in an 4,25 kg jerrycan and pigment paste in a 250 gram pot. Total weight of 17 kg.

Powder packaged in 5 kg bucket, waterborne resin in a 1,70 kg bottle and pigment paste in a 100-gram pot. Total weight of 6,80 kg.

De Cementitious Micro TOP:

Powder packaged in 5 kg bucket, waterborne resin in a 2,5 kg bottle and pigment paste in a 100 gram pot. Total weight of 7,60 kg.

Powder packaged in 2 kg bucket, waterborne resin in a 1 kg bottle and pigment paste in a 40 gram pot. Total weight of 3,04 kg

Shelf life/storage

Up to 6 months after the production date if kept in the original, sealed, unopened and undamaged packaging and stored dry between +5 ºC and +30 ºC.

Application

Adhere to the prescribed mixing ratios and refrain from adding water. Additional water will reduce the impermeability which must be avoided, especially for floors and walls in wet areas. When used for aesthetic purposes where water-proofing is not necessary, water may be added at a ratio of 70% resin to 30% water. This mixture may be added at your own discretion to the Cementitious Micro powder which will increase the process ability of the product but may also result in colour deviation, porosity, reduced adhesion and a general weakening of the product.

Shake the jerrycan well before use and then pour roughly 80% into the mixing bucket.
Add the pigment paste to the B-component and mix this briefly
This will give a thicker consistency and reduce the formation of lumps.
Mix the mortar at high speed using a mixer until you have a lump-free, homogeneous substance and then add and mix the remaining 20% of B-component.

Construction procedure

Primer: Primer GP should be used on both porous and non-porous substrates, this filled primer is known to dry very rapidly and the light structure creates sufficient resistance for the Cementitious Micro BASE to avoid “rolling”.

Lesser adhesive substrates can be treated firstly with Primer GW and later overlaid with Primer GP.

If in doubt perform a preliminary adhesion test.

Warning for Anhydrite:
Due to varying qualities of anhydrite or calcium screeds, Quartzline BV advises first sanding and vacuuming the floor before applying a layer of “Quartzline Primer BHH”. Then apply a layer of Primer GP
Anhydrite or calcium sulphate screeds must have a residual moisture content of < 0,5 CM-%. (Heating screeds < 0,3 CM-%)

Wearing Course: ***Cementitious Micro BASE***

Once the Primer GP is sufficiently dry, the Micro BASE can be applied.
If desired the Micro BASE may be overlaid once it starts to show signs of setting, this could be as soon as one hour after application depending on climatological circumstances.

Cementitious Micro TOP

It’s often possible to apply Cementitious Micro TOP within an hour onto the Micro BASE, correcting any imperfections in the Micro BASE and forming a smooth but defined pattern.
If Micro TOP is applied a day later, first sand the Micro BASE with an electric sander then remove all dust and apply the Micro TOP.

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When used purely as a decorative covering for walls, two layers of Micro TOP may also be used.

Photo on the left above shows that water is unable to get underneath the lacquer whereas on the right water has clearly been absorbed.

A floor that has not yet been sanded is vulnerable to dirt, remove outdoor shoes and wear only socks or other suitable footwear when sanding and coating the floor.
Make sure that wheels on sanding machines are clean so that no marks are made while sanding, we advise the use of masking tape on the wheels to prevent this.
When sanding with **new** sandpaper, start with less visible areas such as where a kitchen unit will be installed to remove the newness of the sandpaper. Alternatively reduce the newness of sandpaper by first using it on a wooden board that has an epoxy layer with sand mixed into it.

Topcoat: The Cementitious Micro should be finished with 100 to 150 gr/m^2 of Coating CSL.
The next day the Coating CSL must then be finished with Coating PU MG which is available in matt or satin gloss finish.

For more information please see the relevant technical data sheet.

The Quartzline Cementitious Micro is part of the following system:

Cem-Line Micro

Consumption

Consumption of Cementitious Micro BASE lies between 1,2 and 2,0 kg/m^2 .
Consumption of Cementitious Micro TOP lies between 0,4 and 0,8 kg /m^2 .

The figures above are theoretical and do not allow for the possibility of additional material being required due to surface porosity, surface profile, variations in level or wastage etc.

Substrate preparation

Floors:
The substrate must be sound and of sufficient compressive strength (minimum 25 N / mm²), , with a minimum pull-off strength of 1,5 N/mm².

The substrate must be clean and dry and free of dirt, oil, grease and other soiling.

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.

Uneven substrates must be levelled in order to achieve an even substrate. Use Quartzline Cementitious SL Underlayment or Cementitious SL Constructive. Please see respective Technical Data Sheets for more information.
Cementitious SL Underlayment or Constructive should be left to dry and then sanded and re-primed with Quartzline Primer GP.

All dust, loose and friable material must be fully removed from all surfaces before applying the product, preferably using a brush and/or industrial vacuum cleaner.

Weak concrete and loose cementitious levelling must be removed and surface damage such as blowholes and voids must be repaired with Quartzline Epoxygel and then primed again. Cracks and seams must be repaired using Quartzline Fibreglass tape and Epoxy Gel which must then be treated with Micro TOP to smoothen the surface and hide the fibreglass tape. Be sure to treat all repairs with Quartzline Primer GP.

Walls:
The substrate must be flat, level, dry, sturdy, shockproof, stable, grease and dust-free.
Due to differences in material properties we advise the use of a good quality silicone sanitary kit in places where Quartzline Micro is in contact with other materials such as bathroom furniture and floor tiles.

Use reinforcement mesh for seams to stabilize and strengthen constructions and a thin layer of Quartzline Micro TOP to level uneven surfaces, do not use gypsum-based products.

Wet rooms:
Never use gypsum-based substrates (underlays) in wet rooms as they are not water resistant.
Before applying Quartzline Cementitious Micro, a waterproof seal must be made where floor meets wall using Quartzline fiberglass tape.
To do this apply a generous layer of Quartzline Epoxy Gel with a brush and put the tape on top making sure to overlap the tape in the corners.
Now apply more Quartzline Epoxy Gel onto the tape and flatten the tape with the brush, extra Epoxy Gel is used around drains and pipes to create waterproof seals.
Next apply a layer of quick drying Quartzline Primer GP which should be levelled off with a small amount of Quartzline Micro TOP.
Once this is done the whole project cab be primed with Quartzline Primer GP and the Quartzline Cementitious Micro may be applied.

Application conditions

Substrate temperature:	Minimum 10ºC, maximum +25 ºC
Ambient temperature:	Minimum 10ºC, maximum +25 ºC
Relative Humidity :	Maximum 75% R.H.
Dew point:	Beware of condensation!

The temperature of the substrate and non-hardened materials must be at least 3ºC higher than the dew point to prevent the formation of condensation, efflorescence or cement skin on the mortar surface.

Don't work in sunny or windy conditions. Don't apply outside if rain or frost has been forcasted.

Application

Once mixed the processing time at 20 degrees centigrade is roughly 45 minutes.
Two days after applying the last topcoat layer the system can be used for light traffic.
Fully cured 7 days after last topcoat.

Check the R.H. and dew point before application.

To avoid unwanted imprints and colour deviation remove all doors beforehand.

To avoid draught, make sure all doors and windows are closed.

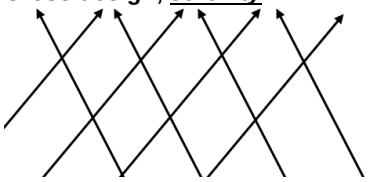
Layers that are too thick can cause hairline cracks in plaster work. It's possible to apply multiple layers of Micro on a 'wet-on-wet' basis.

The Quartzline Micro BASE and the Micro TOP can be applied onto the substrate in the necessary thickness using a Quartzline RVS Pourfloor trowel.

Use Quartzline Fibreglass tape before the first layer and level with a small amount of Quartzline Micro TOP to strengthen and level seams and cracks. After doing this always apply a layer of Primer GP which will ensure adhesion of the Quartzline Cementitious Micro BASE with the substrate.
The Micro BASE then acts as a underlayer for the Cementitious Micro TOP.
Once the setting process is sufficiently under way, (roughly an hour after applying the Micro BASE) the Micro TOP may be applied. This layer reveals the unique pattern and structure of the Cementitious Micro, different effects can be achieved using a metal trowel.

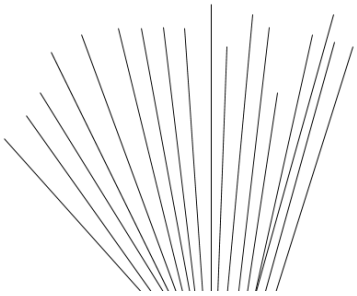
By laying insulation boards on TOP of the freshly setting Micro BASE you can work 'wet-on-wet' while distributing your body weight evenly over the Micro BASE and avoiding too much weight in one place.

Cross design, *serenity*:



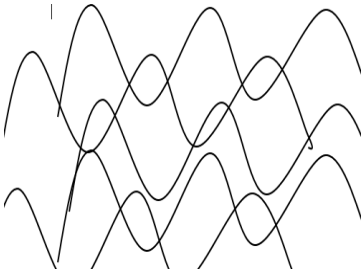
Distribute the Micro BASE and the Micro TOP evenly.
Apply the pattern by making crosses.
The effect is uniform and serene.

Fringe design, *shutter*:



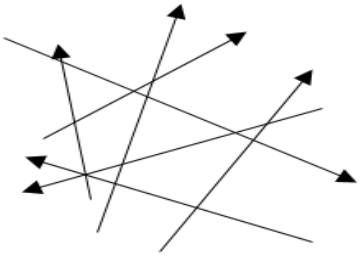
Distribute a thin scraped layer applied in short swirls.
Apply 1,2kg of Micro BASE per m2 in a short swirling motion. The thickness of the layer will make the trowel jump and the fringe will appear. (shuttering)
Scrape the Micro BASE with the Micro TOP.

Curved design, *waves*:



Distribute the Quartzline Cementitious Micro BASE with a curved wave motion.
Using the same motion apply the Cementitious Micro TOP.

Jagged design, *wild*:



Clean tools with water immediately after use.
Hardened material can only be removed mechanically.

The day after application open all doors and windows to release moisture.

Depending on climatological circumstances, Micro TOP can be sanded 12 to 24 hours after application using P120 grit sand paper, either by hand or a mechanical rotary sander. Sanding will smoothen the surface and enhance the pattern, any protruding bumps or lumps can first be sanded using P40 or P60 grit paper taking care not to leave visible sanding damage to the floor.
Floors should preferably be sanded using a three-disc rotary sanding machine.

Be careful when using new sand paper, reduce the newness of sand paper on a test area or suitable wooden board as mentioned above.

While sanding the surface colour will become lighter with dust, remove dust with a vacuum cleaner before applying the coating.

Do not walk on floors wearing shoes until a top layer has been applied.

NEVER apply the Coating PU MG onto the Coating CSL the same day, even if the Coating CSL feels dry.

Wait 48 hours after application before turning on any floor or central heating. The temperature of floor heating should be gradually increased daily to avoid sudden temperature differences.

Remarks

Do not mix with other cement or cementitious floor products.

Freshly applied Cementitious Micro must be protected from damp, condensation and water loads for at least 24 hours.
Do not load the floor for 24 hours and don’t exceed the prescribed layer thickness.

Natural differences in raw materials can cause colour deviation in the end result.

Protect from direct sunlight, heat or strong winds and extreme temperatures to avoid accelerated drying and hairline cracks. These superficial hairline cracks or crackle normally occur under these circumstances and are not admissible as the subject of a complaint.

Cleaning/maintenance

To prolong durability, all spillages must be removed as soon as possible and the floor should be cleaned regularly.
Avoid excessive use of water, and after mopping allow the floor to dry as quickly as possible.

DO NOT leave puddles on the floor.
Clean the floor with tepid water. Never use hot water (warmer than 40 °C)

Value base

All technical data stated in this technical data sheet is based on laboratory tests.
Actual measured data may vary due to circumstances beyond our control.

Health and safety information

For information and advice on the safety handling, storage and disposal of chemical products, users should refer to the most recent material safety data sheet containing physical, ecological, toxicological and other safety related data.

Legal notes

The information, and in particular the recommendations related to the application and end use of Quartzline products, is provided in good faith based on our current knowledge and experience of the products. It is valid for products that are correctly stored, treated and applied under normal conditions in accordance with Quartzline's recommendations.

In practice, differences in materials, substrates and actual on-site conditions are such that no warranty in respect of merchantability or of suitability for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.
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