



## Product Definition:

High performance single component hydraulic micromortar made with special cement and sand with varying granulometry as well as other additives that, in combination with the above, provide it with great physio-chemical and aesthetic properties.

It is used for making highly decorative continuous coatings with cement-mineral appearance; in floors and walls.

It is used as a regularisation coat before the application of Finish Microconcrete or Super-thin Finish Microconcrete, although it can be used alone by smoothing it, without these other finer finish products.

## Suggested Applications:

Wall and floor decoration in hotels, offices, malls and venues, schools/nurseries, hospitals and museums with great properties such as:

- Be a continuous coating.
- Flame retardant (due to its mineral nature).
- Breathable (permeable to water vapour molecules).
- Due to its crystalline structure, it reflects the radiations of light and heat.
- Aseptic (high alkalinity 12,5)
- Antistatic.
- Low allergenic levels.
- Magnificent ageing, the action of environmental CO2 hardens it progressively.
- High resistance to rubbing/wear.
- High adhesion.
- High deformability for a mineral finish.
- Low thermal spread.
- In its simpler finish technique, the burnished smooth, the stylistic contrasts are well resolved, and decorations are not conditioned.
- The possibility of creating unified environments, since the same decoration can be applied to floors and walls.
- Clean and uncomplicated commissioning work with respect to other systems/materials.

**Physical location:** Indoors.

## Technical Data:

PH: 12.5± 0.5

**PRESENTATION:** Single-component powder product to which water must be added and mechanically removed until it is completely homogenised.



**BULK DENSITY of the POWDER:**  $1 \pm 0.05 \text{ g/cm}^3$

**DENSITY of the mix with water (previously mixed):**  $1.75 \pm 0.05 \text{ g/cm}^3$

**Standard PACKAGING:** 15kg containers.

**MIX (mixing powder + water):** 15kg of Base Microconcrete are prepared with 5.1-5.2 l of water.

Pour the necessary water first, then the Microconcrete Reinforcement Hardener, the Toner Dye and finally the powder, homogenise-knead the mix using an electric mixer.

The thickness per coat that can be applied will depend on the amount of water used during the mixing stage. The more water, the thicker the coat.

**LIFE SPAN OF THE MIX:** 8½-9 hours under 20°C and 55% relative humidity conditions. **The working-setting times will vary accordingly depending on higher temperature and lower humidity conditions.**

**LIFE SPAN IN CONTAINER:** Approximately 14 months in stable environmental conditions +5°C (min.) and + 32°C (max.) without opening the tin or the bag containing the Microconcrete. Avoid frost and high temperatures.

### Application Technical Data:

**INDOORS COLOURS:** 27 obtained from Dye Toners of the *Microcement & Microconcrete Colour Chart*, added to the neutral Base Microconcrete (i.e., as it appears after mixing), in the same proportion as it appears in the chart. They can be mixed among them to obtain new colours.

**OUTDOORS COLOURS:** Only use the Dyes/Toners referenced in the Colour Charts as Outdoors. For a more extensive range of colours in this location, contact our commercial department.

**MAXIMUM THICKNESS PER COAT:** 2-3 mm.

**TOTAL NECESSARY THICKNESS before the application of the Microconcrete finish:** 2.2 mm, which are approximately 2 coats, for the system to provide the mechanical strength and good cohesion ideal qualities. This condition is necessarily given in floors or façades. If applied alone, it has to reach 2.5 mm.

**INTERVAL BETWEEN COATS:** 16 to 18 hours under 20°C and 55% relative humidity conditions.

**DRYING prior to the application of Micro Concrete Finish:** 12 to 14 hours under 20°C and 55% relative humidity.

**DRYING before application of sealing varnishes if left as a finish:** 48 hours under 20°C and 55% relative humidity.

**APPLICATION TOOLS:** Stainless steel trowels and spatulas.

**CLEANING OF TOOLS:** Clean with soap and water immediately after use. Keep in mind that the product is highly adherent. If it dries, it must be cleaned by abrasion/sanding.

### Application conditions:

**PREVIOUS PREPARATIONS:** Surfaces must be dry, firm/set up, well adhered, free of salts, free of any biological contamination such as mould, algae, lichens, free of environmental contamination (grease stains, soot, substances of unknown nature, etc.); i.e., free of any visible or invisible substance or contaminant that prevents the perfect attachment and finish of the Base Microconcrete or its previous primers.

### ACTUATION SYSTEM

Types of Surfaces	Application Method
Cement, lime or mixed wall plasters.	Clean the dust and make sure that they are not uneven or gritty. Apply the <b>ULTRAFINE BINDING PRIMER</b> if necessary, before proceeding with the <b>BASE MICROCONCRETE</b> .
Spacklings and plasters of high performance for repairs/levelling of floor/wall.	Clean the powder (if any as a result of sanding or pollution) and proceed with the <b>BASE MICROCONCRETE</b> .



Screed mortar surfaces for floors	Clean the dust and be sure that the surface is not gritty and is set up, carefully checking that no other problems are present. Apply Ultrafine Binding Primer, if necessary, before the <i>BASE MICROCONCRETE</i> .
Screed self-levelling mortars or levelling for floors	The same observations as for the previous case.
Special mortars for floors with underfloor heating.	The same observations as for the previous case.
Concrete.	If necessary, fix holes or imperfections with Reparation/Levelling Spackle and then proceed with the <i>BASE MICROCONCRETE</i> .
Emulsion paints (plastic matte paints) on walls.	Verify that they are well adhered and do not have any problems. Apply 2 undiluted coats of <i>INSULATING BASE COAT</i> , leave to dry and apply the <i>BASE MICROCONCRETE</i> .
Satin emulsion paints, water-based acrylic enamels, on walls.	Verify that they are well adhered and do not have any problems. Apply 2 undiluted coats of <i>INSULATING BASE COAT</i> , leave to dry and apply the <i>BASE MICROCONCRETE</i> .
Synthetic enamels, polyurethanes, on walls.	Verify that they are well adhered, no problems are present, and that at least 1 month has passed. Apply the <i>BASE MICROCONCRETE</i> directly.
Epoxy and polyurethane coats on floors.	Verify that they do not have any contamination or other problems and that at least 1 month has passed before applying the <i>BASE MICROCONCRETE</i> , which is done directly.
Cardboard/Water-resistant plaster, normal and flame retardant.	Apply 2 coats of <i>QUARTZ PRIMER</i> (undiluted if possible), leave to dry and apply the <i>BASE MICROCONCRETE</i> .
Ceramics	Apply the <i>ENDUIT REPAIR/LEVELLING</i> or the <i>BASE MICROCONCRETE</i> itself, then 1 or 2 coats of <i>IMPRITEX 4X4</i> , let dry, and then the <i>BASE MICROCONCRETE</i> .
Terrace	Apply the <i>ENDUIT REPAIR/LEVELLING</i> or the <i>BASE MICROCONCRETE</i> itself, then 2 or coats of <i>IMPRITEX 4X4</i> , let dry, and then the <i>BASE MICROCONCRETE</i> reinforced with a fibreglass mesh.
Granites-marbles	Same as in the previous case.
Ceramic vitreous tile (glass tiles with joints)	Same as in the previous case.
Mixed Surfaces: Ceramic, terrazzo or stones that are scored with dints, or repairs with various mortars.	Leave time for the filler mortars to acquire their volume and show any retractions or breakage. In all other cases, follow the same steps as above, except for prior dints binding. If the sand is loose, this operation may be carried out using <i>ULTRAFINE BINDING PRIMER</i> .
Sprayed plaster and perlite plaster.	Clean the dust and be sure that the surface is not gritty and is set up, carefully checking that no other problems are present. Apply <i>ULTRAFINE BINDING PRIMER</i> , if necessary, before <i>QUARTZ PRIMER</i> . Let dry and proceed with the <i>BASE MICROCONCRETE</i> .



Plasters with fine plaster finish	Clean the dust and make sure that they are not uneven or gritty; ensure that they do not present any other problems. Apply the <i>ULTRAFINE BINDING PRIMER</i> before the <i>QUARTZ PRIMER</i> ; let dry, proceed with the <i>BASE MICROCONCRETE</i> .
Wood shavings boards (waterproof MDF)	Apply 2 coats of undiluted Insulating Base coat, leave to dry and apply the <i>BASE MICROCONCRETE</i> .

#### GENERAL OBSERVATIONS

<ul style="list-style-type: none"> <li>➤ Working temperature of both the environment and the surface: minimum 7°C -maximum 32°C.</li> </ul>
<ul style="list-style-type: none"> <li>➤ Screed floors on which Base Microconcrete will be applied must be installed according to regulations that mark minimum plate thickness according to mortar type, distance-width-depth of retraction joints, expansion and hardening/maturation time. To avoid strong retractions that are manifested in the breaking of the plate.</li> <li>➤ It is necessary to respect expansion, retraction, and dilation joints in the application of the Medium Microcement.</li> </ul>
<ul style="list-style-type: none"> <li>➤ For screeds in floorings or wall parge coats, use industrially manufactured mortars with suitable typology for each case that guarantee homogeneous dosing and additives.</li> <li>➤ Those fabricated on site are forbidden because of the generation of retractions for at least 3 to 6 months depending on the thickness and type/dosing of the cement.</li> </ul>
<ul style="list-style-type: none"> <li>➤ Apply the Ultrafine Binding Primer on very absorbent floors or floors in which this property is increased by the effect of high temperatures for better workability of the Base Microconcrete. The same applies when the surface is uncoated with loose sand that is impossible to vacuum or sweep.</li> </ul>
<ul style="list-style-type: none"> <li>➤ Check that concrete and mortars do not contain any harmful water-resistant material that may affect adhesion or generate contamination that will appear as stains.</li> </ul>
<ul style="list-style-type: none"> <li>➤ The reinforcement meshes must be in the middle of the mortars; neither close to the surface nor glued to the support. The mesh light suitable for the Repair/Levelling Spackling or the Base Microconcrete is 4X4 mm. and 86 grams.</li> </ul>
<ul style="list-style-type: none"> <li>➤ Bathrooms often have poor air recirculation. This must be considered for the products drying process.</li> </ul>
<ul style="list-style-type: none"> <li>➤ The average relative drying and retraction calculation for medium and high thickness self-levelling and screed mortars is: 1 day x every 1.5 mm thickness. The process is accelerated at lower dimensions (by the total water content of the plate).</li> </ul>
<ul style="list-style-type: none"> <li>➤ When applying the Base Microconcrete on filling or levelling decks/mortars, perimeter expansion joints -or other similar joints- and dilation joints must be respected. Retraction joints can be covered once they have fulfilled their function, i.e. when enough days have passed and the mortar has reached its final volume.</li> </ul>
<ul style="list-style-type: none"> <li>➤ Calculation of maximum moisture of the surface for the application of Microconcrete: 5 to 7%.</li> </ul>
<ul style="list-style-type: none"> <li>➤ The same goes for terrazzo, granite, and marble plus the reinforcement of the Base Microconcrete for possible movements of the plaques, especially in the case of terrazzo.</li> </ul>
<ul style="list-style-type: none"> <li>➤ Base Microconcrete is not a waterproof material. Therefore, waterproofing in the execution of bathtubs, toilets, etc. comes from the construction itself.</li> </ul>



➤ If an intense colour has been chosen with the addition of a lot of Dye/Toner, the hardening time slows 1-3 times, something that must be taken into consideration in the case of the execution of floors, for varnishing and subsequent use.
➤ The setting time in the tin can be increased or decreased depending on the Toner Dye chosen and the amount used.
➤ If you would like to avoid a "greying" in light colours caused by the wear of the steel trowel against the wet Microconcrete surface, finish using Fine Microconcrete, applying it with a plastic trowel and polishing it mechanically once it has dried.
➤ If a wall is to be later made with the same colour with Microconcrete Finish in a space, both surfaces have to receive the same amount of coats and the same treatment to avoid changes in the decorative effects and the colour intensity.
➤ For proportional colour calculations it is necessary to take into account that the Dyes/Toners are presented in 200ml tins, but their weight is 250 grams.
➤ The "wet on dry" technique is the most viable when working in several or large spaces and several work teams.
➤ The floors made with Base Microconcrete + Microconcrete Finish are only fit for moderate to intense human traffic.
➤ Pisa is exempt from responsibilities for damage and problems in regards to stains, detachment, lack of cohesion, exposures, produced by deficiencies of the direct surface or structure.

#### Application methods:

a) Apply an initial coat of Base Microconcrete using a stainless steel trowel.

b) Apply a second coat/layer after the first coat of Microconcrete has set-hardened even if it is wet or also on the 1ª dry.

*\* For the smoothing technique, i.e. without using either the Microconcrete Finish or the Superfine Microconcrete Finish to finish, use the same techniques as for the Medium Microcement and for similar aesthetic aspect.*



a)



b)

#### Protections of the Base Microconcrete system as a final finish:

In order to prevent penetration of dirt, water, or other contaminants, and to avoid colour bleeding or staining, in certain locations: façades, bathrooms, kitchens, bars, restaurants, and floors in general; houses or high-transit spaces, etc., it is necessary to thoroughly apply any of our protective systems listed below:

Aggressive locations such as kitchens, bathrooms, restaurants, hair salons.	Apply 4 coats of undiluted WATER-BASED ONE COMPONENT VARNISH (240grs/m <sup>2</sup> ) and a final coat of FABERTANO AR two-component polyurethane varnish diluted from 8 to 10% (80-86grs/m <sup>2</sup> ) matt, satin, or gloss qualities.
House floors	Apply 4 coats of undiluted WATER-BASED ONE COMPONENT VARNISH. *If greater chemical resistance is desired, a final coat of FARBETANO AR two-component Varnish can be applied in matt, satin, or gloss qualities.
Floors in non-aggressive commercial premises or subject to high transit	Apply 4 coats of undiluted WATER-BASED ONE COMPONENT VARNISH (240grs/m <sup>2</sup> ).



**Technical data of the applied and dry material:**

Determination of resistance to bending	UNE-EN 1015-11:2000 and 1015-11:2000/A1:2007	Resistance to Bending (N/mm <sup>2</sup> ) 8.6	
Determination of resistance to compression	UNE-EN 1015-11:2000 and 1015-11:2000/A1:2007	Resistance to Compression (Nmm <sup>2</sup> ) 17.8	
Determination of the elasticity modulus in compression	UNE-EN 13412:2008	Elasticity modulus (MPa) 8640	Resistance to compression (MPa) 20.6
Resistance to adhesion on concrete	UNE-EN 1015-12:2000	F <sub>n</sub> (MPa) 1.60	
Determination of water vapour permeability	UNE-EN 1015-19:1999 1015-19:1999 Erratum 1015-19:1999/A1:2005	Water vapour permeability (Kg/P. a. m <sup>2</sup> . s) 2.57·10 <sup>-10</sup>	Water vapour permeability (Kg/Pa·m·s) 5.13·10 <sup>-13</sup>

**THEORETICAL PERFORMANCE:** depending on the product's roughness, planimetry and absorption.

1,4 -1,5kg/m<sup>2</sup> per coat

**PRECAUTIONS FOR USE:** Alkaline material. Protect skin and eyes.