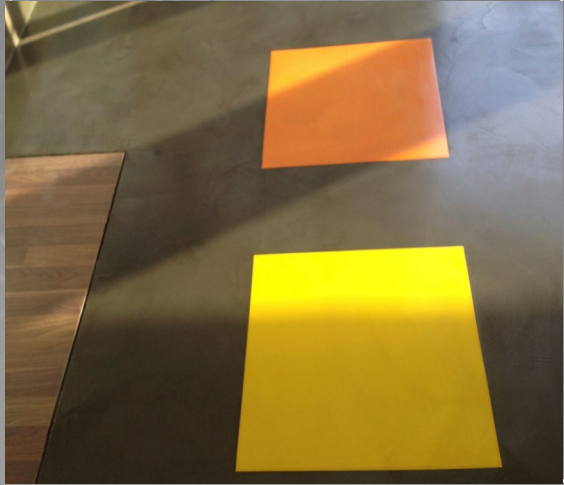




*microestil*



# Application Manual

Decor and Traffic systems



## *¿What is microcement Microestil?*

*Description*

*Application conditions*

## *Application system*

*Application method*

*Surface preparation*

*Primer*

*Pigmented*

*Mixed*

*Leveling coats*

*Finish coats*

*Sand technique*

*Protection seal*

*Application tools*

## *Maintenance*

*Commissioning*

*Cleaning*

*Seal renovation*

*Advices and answers of problems*



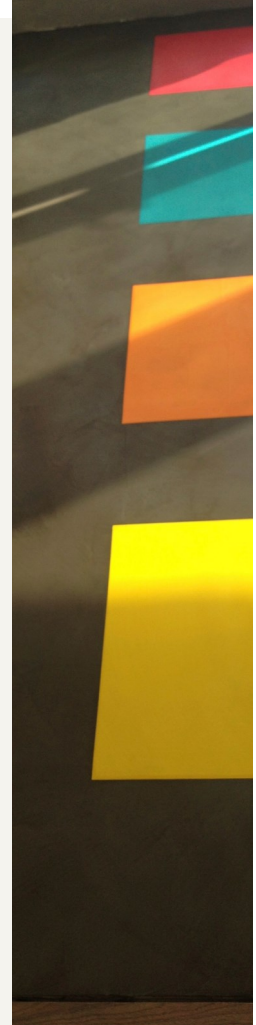
## *¿What is microcement Microestil?*

### **Description:**

It is high performance and easy application hydraulic micromortar, based in calcic cements and different agregates, with special additives which give phicio-chemical and aesthetics properties.

Indicated for continuous decorative coatings of low thickness, with cementitious mineral appearance in floors, walls, new build, refurbishing with/without existent inside and outside support.

For its handmade application, it lets you create unique decorative coatings that no other product can be realized.





## *¿What is microcement Microestil?*

### **Application conditions:**

If there are cracks or fissures in the support, it must be checked whether they are unstable result of structural problems, in this case, please dismiss our system.

In singular points of the building that correspond to areas where tensions arising from the work accumulate, it can cause the appearance of cracks in the coating. Always respect the structural expansion joints, bonding between materials (bricks, concrete, pillars...).

The moisture from the inside, that is, the water that can receive the microcement part where it attaches to the support (negative pressure) can cause destruction of the coating.

On walls previously painted on supports perform adhesion test, because this material can be separated from the support.

Both the workspace temperature as that of the support should range between 7 ° C and 30 ° C.

In outdoors, it is anticipated adverse weather conditions like rain or wind, as they may cause damage to the applied coat.



## *¿What is microcement Microestil?*

### **Application conditions:**

Coated surfaces with PLUS and BC microcement are not suitable for continuous immersion in water (swimming pools), these applications should be made with Poolcem microcement.

In applications floors or walls with large areas and impossible to end the same day, they should redesign *despieces*, especially in the last coat.

The constant or seasonal moisture due to weather percolation, leak pipes, drains and capillary moisture should resolve by surface treatments or repairs of construction.

Therefore, in case of not correct the causes we advise not use our system. In areas where there is moisture condensation for lack of thermal break should not be applied our system.

User will decide whether the products are suitable for use, and he will assume all responsibility in the application process.



## *Application systems*

### **Application methods:**

Although there are many methods of application we advise our application systems depending on the use and appearance wanted:

#### **Decor system**

Cementitious decorative low thickness coating, with smooth finish and “waters” effect in floors and walls. Suitable for homes, shops, furniture, bathrooms, terraces, with medium traffic.

#### **Traffic system**

Cementitious decorative high abrasion resistant coating. Suitable for high traffic as museums, exhibitions, shops, restaurants and other areas.



### *Application system*

#### **Application methods:**

As are systems of low thickness (2-3mm), the number of smooth and consumption coats thereof can change depending on the support rugosity.

#### *“Wet on wet” technique:*

It consists in applying coat upon coat with metallic trowel, when it has hardened above but it is still wet. The hardening time of the material will depend on the absorption of the support and the coat thickness, it can range 1 or 2 hours.

#### *“Wet on dry” technique:*

It consist in applying a coat with a metallic trowel over another coat when the previous coat has dried, about 24 hours according to the relative humidity.

Since the application process is totally handmade, the final texture will depend on the technical of applicator.

Prior application of any system, work should be organized for an application without interruption or joints. If for any reason you must stop the application, try leaving a irregular line as posible.



## *Application system*

### **Surface preparation:**

Applications on cementitious surfaces should be prepared by mechanical (sander or diamond grinder) and subsequently removing dust with vacuum. In ceramic supports should be a chemical stripping to remove any residue, such as fats, waxes or any contaminant that prevents good adhesion of the coating on the support. It must check the adhesion of all tiles, remove tiles that submit movements and fill in the gap with repair mortar. The coated surface must be clean and dry.



### **Primer:**

It must apply one or two coats of primer depending on the absorption of the support of the primer P541 or P100 ESTILPOX on non-absorbent smooth supports and absorbent supports such as concrete and mortar. Apply by brush, short hair roller.

In rehabilitation with different absorption and / or residual moisture supports, consult our technical department.

Let dry for 12 to 24 hours before starting the work of application the microcements.





### Application system

#### **Pigmented:**

Una vez realizada la preparación del soporte que hemos descrito anteriormente, se procederá a pigmentar el agua de amasado para el microcemento con las pastas pigmentarias Microestil COLOR TONER. *No dose the pigment directly in powder or in the product kneaded.*

#### *Pigment dosage:*

Microestil COLOR TONER format selling are cans of 250ml and 500ml, in the label of the container are explained the dosage ratio in millilitre per kilo.

#### *Example:*

#### DECOR KIT 5M<sup>2</sup> (Steel colour 10ml/Kg MCT-100)

	<i>Microcement</i>	<i>Water</i>	<i>MCT-100</i>
<i>Microestil PLUS BASE</i>	<i>10Kg</i>	<i>2,5lts</i>	<i>100ml</i>
<i>Microestil PLUS FINO</i>	<i>4Kg</i>	<i>1,4lts</i>	<i>40ml</i>
<i>Sumas</i>	<i>14Kg</i>	<i>3,9lts</i>	<i>140ml</i>

Pour 3,9L clean water and add MCT-100 140ml with a meter syringe. Shake the water until disperse the pigment.



## *Application system*

### **Mixed:**

Pour the pigmented water in one clean bucket, add the product slowly, mixing by low speed electric mixer during 2 minutes and let rest for 4 minutes, then remix during 2 minutes more.

To avoid changes in tone during application, it should shake the mixing water whenever a new mix is made, and always maintain the same proportion of water and microcement.

The mix life is 1 hour to 20°C, but the ambient temperature and water can accelerate or extend the harden of the microcement. At the moment it starts to harden in the bucket, the mixture should be discarded. Not soften adding more water. Always respect the relation water / powder described on the package.



### *Application system*

#### **Leveling coats:**

Microestil PLUS BASE is essential for create high resistance continous surfaces, being that this form the structure of the coating and it gives resistance and flexibility properties. es esencial para la creación de superficies continuas de elevada resistencia, ya que es el que forma la estructura del revestimiento otorgándole las propiedades de resistencia y flexibilidad. It is indicated for use in the smooth coats of the surface in the DECOR system or such as decorative finish in the TRAFFIC system.

Once mixed, pour the mortar in small amounts and then apply thin coat with smooth stainless steel trowel with semicircular movements covering the surface evenly. The maximum coat thickness is 3mm.

Apply the first coat and let dry between 12-24 hours, then sand the surface by mechanical means with 120 gri sandpaper, vacuuming all the surface and apply the second coat. Depending on the roughness of the support can be necessary a third coat.



#### Proportion of mix with pigmented water with Microestil PLUS:

Package 20Kg	5 - 5,5 Lts.
Package 10Kg	2,5 - 2,75Lts



### *Application system*

#### **Finish Coats:**

Microestil PLUS FINO is a caster grain microcement for smooth estucco finishes on Microestil Plus BASE in the DECOR system.

Direct vertical applications (drywall, plaster, ...) of Microestil PLUS FINO will have the same compressive and flexibility resistances of the support. The land application should always be preceded with Microestil PLUS BASE.

Once mixed, pour the mortar in small amounts and then apply thin coat with smooth stainless steel trowel with semicircular short movements irregularly.

Apply the second coat by application methods described (wet o wet or wet on dry).

Let dry at least 24 hours before the end sand. During that time the coating is totally exposed so traffic should be avoided and any discharge, as it could stain it permanently.

We advise protecting the perimeter of the surface to be treated with masking tape.

#### Proportion of mix with pigmented water:

Package 16Kg	5,6Lts.
Package 8Kg	2,8Lts.
Package 4Kg	1,4Lts.



## *Application system*

### **Sand technique:**

Past 24 hours since the application of the last microcement coat we will proceed to sand the surface to enhance the marbled effect. Always by mechanical means (rotoorbital sander) with 120 grit sanpaper. Evenly with the same intensity over the surface, because otherwise, they will appear darker areas and lighter areas after sealing.



At this phase of the application, the material is exposed, the team work must exercise cautions to avoid damaging the coating during grinding work and aspirate work the last coat. In floors should protect the soles of your shoes and prevent the discharge of any substance that can penetrate the surface (water, oil, sweat, ...).

Vacuuming all surface before starting the sealing works.



## *Application system*

### **Protection seal:**

To prevent the penetration of dirt and other contaminants and prevent color bleeding, it is imperative to apply on all finish coatings the protective seals ESTILPUR 1C or ESTILPUR PU25, depending on the use which the coating is allocated.

#### Protection seal:

Prime the surface with two coats of Microestil HIDROLACA with microfiber roller or short hair roller, past between 12-24 hours apply two coats of varnish ESTILPUR 1C or ESTILPUR PU20. The drying times between coats will vary depending on humidity and ambient temperature.

ESTILPUR 1C: Polyurethane aliphatic and one-component varnish with high abrasion resistance and the household chemicals.

ESTILPUR PU20: Two-component polyurethane varnish with excellent striped resiatance and continuous liquid spills.

### **Consult Technical Datasheet.**

Avoid during the first week liquid spills, moisture and water, as they may damage the coating permanently.





### *Application system*

#### **Application tools:**

For correct application you must have the following tools and accessories:

- Mixer adjustable velocity.
- Rotoorbital sander.
- Podwer vacuum.
- Meter pitcher or scale.
- Gloves.
- Podwer mask.
- Kneepad (floor application).
- Inox trowel.
- Palettes.
- Sand 60, 80 and 120 grain.
- Masking tape 3cms
- Rollers for primer and seal.
- Cutter
- Pail for mixed.





## *Maintenance*

### **Commissioning:**

These coatings obtain 40% mechanical resistance at first 48 hours and chemical resistance at 7 days.

First 48 hours:

- No work on surfaces.
- Avoid liquid spills, moisture and water.
- Good ventilation.
- Do not clean with water.

First week:

- Clean with water without .
- Protect the surface if you make painting, plumbing, masonry...
- Do not drag heavy objects such as furniture, chairs, scaffolding, ladders, etc. on the surface.

**The coating will obtain all final resistance at 28 days.**





## *Maintenance*

### **Cleaning:**

A correct cleaning of the coating is easy and indispensable for keeping the ideal conditions and protection of the surface.

The cleaning will be made with baize or wet mop adding LIMPIADOR MANTENIMIENTO. The surface will be clean and protected in one process.

Regular use of CLEANER MAINTENANCE provides an increase in surface.

Do not use abrasive products which polish or scratch the surface, and abrasive cleaning systems as sandpaper, metallic brushes, ...

Do not leave on detergents too long being that the surface is not porous and not required.

Do not use solvents, acetone, xylene and any industrial stripper because they directly attack the sealing varnish.

Use of these products can cause irreversibly damage to the coating.



## Maintenance

### **Seal renovation:**

Depending on the use made of the coating must renew the sealing protection coat because this is which receives the usual wear and use.

Sealinf renovation shall be carried out only when the surface present imperfections in the varnish that is not removed with regular cleaning.

The surface will be sanded lightly with 120 grit sandpaper without removing the varnish coat, we only want to open pore of varnish. Subsequently all surface will vacuum to remove all dust generated with sanding, then the surface will be cleaned with neutral soap and it will rinse with water. If was necessary, it should absorb water with vacuum cleaner.

Past 24/48 hours, according to ventilation and temperature will proceed to apply the polyurethane varnish in two coats.

*NOTE: The existence of imperfections such as spots or stripes that do not get removed by sanding, it indicates that the microcement has been damaged directly, so they must be reapplied final smoothing coats and subsequent application of protective seal.*



## Maintenance

### **Advices and answers of problems:**

*Installation is not complicated but the application requires to have basic knowledge in handling trowel and application of aqueous varnishes.*

In all applications must be checked the conditions of support because the coating is adhered on the surface and this will copy any problem derived from the support such as cracks and moistures.

During the application, the workspace must be kept completely clean of dust or objects that could damage the surface and prevent the movement of people and animals until you finished completed the application.

If you have not experience in the application of coatings, we recommend that before making the application to do preliminary tests to assess the level of difficulty and possible problems that may arise during the final application.

If for any reason dismissed the application on your own means, you can contact with Microestil and our technicians will provide contact with an applicator company of our products in your area.

PROBLEM	DESCRIPTION	SOLUTION
Expansion joints	There are expansion joints on the surface. ¿Can they cover?	No, never. You should always respect and copy on the surface. They can cover superficially during the application for work in continuous and cut ending the application. Then you can seal with colour silicone.
Crack on the support	The support has shrinkage cracks in the concrete harden.	Check concrete age, at least 28 days. Repair the crack with circular saw and reinforce with repair mortar and fiberglass mesh.
Tile joints	After microcement application, the tile joints noticeable.	On tiled wide joint before to do smooth surface works you must perform a scraped in joints with Microestil PLUS BASE until covered them totally.
Too quick harden	After mix, the mixture harden very quick and it can not apply.	The high temperatures accelerate the harden of the microcement. Check the water temperature, if you need cool the water with ice cubes.
Air bubbles	During microcement application are produced bubbles which are small holes when it hardens.	This problem arises when we make the application on a very adsorbent surface without prior primer or between coats when the support has residual moisture. Topcoats that had this problem must be repeated.
Tonality changes	During the application I have had tonality changes between mixes.	All kneaded must maintain the same proportion of water and microcement whether the measurement is done by weight or volume.  If the mixing ratio is performed by volume it must decompact the microcement of its container pouring into another container.
Striped sanding	During the sanding, the abrasive discs scratch the surface.	Replace the disc and check dirt on the surface.  The scratch is not removed by sanding more, you must repeat the applied coat.
Roller mark in the seal	The roller past are marked in seal application, both color and texture.	Dilute the first varnish coat with water so that penetrate deeply saturating the pores.  Prevent sealing applications with high temperatures and / or on reheated supports.