



Product Definition:

A product for protection and beautification, based on polyurethane resins that are water-soluble in two components, which shows great transparency in addition to a remarkable resistance to yellowing. The treated surface material is waterproofed and it also exhibits good wear resistance.

Suitable for walls and floors with human transit and modern aggressive, non-industrial locations.

Ideal for the application on our Microcement and Microconcrete system in floors and walls. It can also be used in the varnishing of mortar and wood decks.

Physical Location:

Indoors.

Technical Data:

PH: 7.5 ± 0.5

DENSITY of Component A (resin): $1 \pm 0.05 \text{ gr/cm}^3$

DENSITY of Component B (catalyser): $1.1 \pm 0.05 \text{ gr/cm}^3$

PACKAGING of component A (resin): 4lt.

PACKAGING of component B (catalyser) 0.4lts

QUALITIES: Matt, slightly satin.

MIXING INSTRUCTIONS: Carefully homogenise Component A with B. When using less than the units we present: Weight both components to maintain the proportion.

If an electric mixer is to be used, use it at low speed so as not to introduce too much air into the mix. Let it sit for 5 minutes before using it.

LIFE SPAN OF THE MIX: 7-8 hours approximately.

LIFE SPAN IN CONTAINER: Both Component A and B, approximately 12 months in stable ambient conditions $+5^{\circ}\text{C}$ min. and $+32^{\circ}\text{C}$ max. and without opening the containers. Avoid frost and high temperatures.

Application Technical Data:

APPLICATION TOOLS: Air gun, roller, brush.

- Airbrush projection (gun): the undiluted Polyurethane Varnish can be applied with a peak of 1.8 or 2 and 2.5 or 3 atm pressure.

- Using airless: 13-15 size nozzles.

- Rollers: Thread, non-dripping, short coat hair.

COLOURS: To achieve some decorative effect, it can be coloured with the Dyes/Toners without exceeding the 1-1.5% in weight.



THINNER: Ready-to-use product.

MAXIMUM THICKNESS PER COAT: 150 microns.

INTERVAL BETWEEN COATS: 10-12 hours under 20°C and 55% relative humidity environment conditions. This time varies depending on to the thickness of the applied coat and the temperatures.

TOTAL DRYING: In the application on our Microcement and Microconcrete system, when it has been applied in kitchens, bars, restaurants, wash rooms or bathrooms with areas in contact with water and oils, these facilities can only be used 7 days after the application of the last coat of varnish, with the previously described ambient conditions.

However, for aggressive locations such as those described, it is recommended to use a two-component polyurethane varnish with solvent Farbetano AR AD.

- The consideration of the previous point is also valid for the varnishing of platforms and parquets.
- In locations where there will only be human transit, and only if it is inevitable, a minimum of 72 hours should pass after the application of the last coat before the floor could be 'stepped on'. Under no circumstances it can be cleaned until 7-10 days have passed.
- The total thickness of the coat must always be considered in every case: at a higher thickness, it is necessary to wait longer for the cross-linking of the film and, therefore, for it to acquire its final physico-chemical properties.

TOTAL HARDENING: It reaches its maximum performance after 30 days.

MAINTENANCE: Only water, neutral soap, and specific platform cleaners.

Maintenance waxes applied on the last coat of varnish can also be used as an anti-scratch system.

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 Two-component Polyurethane Varnish.

SUPPORTS AND ACTUATION SYSTEMS

Pisa Microcement	Apply 3 or 4 coats of <i>WATER-BASED TWO-COMPONENT POLYURETHANE VARNISH</i> .
Concrete decks or unpolished cement mortars	Check that the smoothing coat is not dusty/uneven. If so, it can be strengthened with the <i>ULTRAFINE PRIMER</i> . After it dries, proceed as in the previous case *This system is not suitable for acid-polished cement mortars.
Concrete decks or smoothed cement mortars	Same as in the previous case.
Wood and wood shaving composite	Apply 3 or 4 coats of <i>WATER-BASED TWO-COMPONENT POLYURETHANE VARNISH</i> *This varnish is not suitable for resinous or oily wood.



Observations on the application of varnishes on Pisa Microcement for achieving an effective protection:

- The smoother the Microcement surface, the easier it will be to close the pore and therefore achieve a better seal.
- Perform the varnishing/sealing carefully and by leaving coats.
- The estimated consumption of this varnish -for a consistent film- is 0.80-0.86 grams per coat and m² applied.
- Maintenance of the Microcement finished with any of the water-based Two-component Polyurethane Varnishes is the same as for a varnished wood platform: specific cleaners and neutral soaps.

GENERAL OBSERVATIONS

➤	Environment and surface working temperature: min. 12°C-max. 32°C.
➤	The smoother the surface to work on is, the more the Varnish coats will tolerate dirtying and wearing away by contact.
➤	The less texture of the varnish coat applied, the easier it will be to clean and maintain, especially on floorings.
➤	The gloss level may be more or less intense depending on the amount of coats and the application system, as well as the finishing of the microcement.
➤	When varnishing between coats, you should always enter the floors with clean footwear or plastic covers.
➤	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.
➤	Calculation of maximum moisture of the surface for the application of Water-Based Polyurethane Two-Component Varnish: 5 to 7%.
➤	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.

Chemical resistance chart - This chart is for guidance purposes only. We recommend that any substances spilled be cleaned up immediately.

General conditions: Resistance after 28 days at average environmental conditions of 20°C and 55% relative humidity and the consumption indicated in the theoretical yield, and the film formed must be pore-free.	
98% acetone	Good until evaporated when coming into contact with the atmosphere without being obstructed.
Wine	Good until evaporated when coming into contact with the atmosphere without being obstructed.
Vinegar	Good until evaporated when coming into contact with the atmosphere without being obstructed.
96% alcohol	Good until evaporated when coming into contact with the atmosphere without being obstructed.
Olive oil at 100 °C	Good for 24 hours.
Engine oil Sae - 30 to 100 °C	Good for 24 hours.
Hydrogen peroxide	Good for 24 hours, then it comes into contact with the atmosphere without being obstructed.
Petrol	Good until evaporated when coming into contact with the atmosphere without being obstructed.
25% ammonia	Good until evaporated when coming into contact with the atmosphere without being obstructed.
Household bleach	Good in four hours.



THEORETICAL PERFORMANCE: Depending on the absorption, texture, and effect desired, i.e., a more or less vitreous coat, the consumption for an effective protection will be of 1 l per 3.5 m² in 3 to 4 coats.

CLEANING OF TOOLS: Water and soap.

PRECAUTIONS: None in particular, except good ventilation.