



Sistemi di
Impermeabilizzazione,
deumidificazione,
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Certified Quality System since **FEBRUARY 1993**

From Project to Jobsite

PL MONO-tec Transparent – one-component

LIQUID TRANSPARENT WATERPROOFING MEMBRANE

Description PL MONO-tec Transparent is a product formulated with special aliphatic polyurethane resins, and, after polymerization, it cures to an elastic membrane, ultra-strong and durable, UV stable, non-yellowing, weather-proof and resistant to many alkaline and aggressive chemicals. It preserves transparency and elasticity over time and can be applied even on glass and as a final protective coating of decorative systems.

PL MONO-tec Transparent can also be used as a transparent binder for outside applications of sand or stone carpets.

Due to an innovative reactive system, the product does not react with moisture and does not form blisters.

Characteristics and Advantages

- Easy application: roller, spray, airless
- Forms a transparent and continuous membrane
- U.V. stable
- Resistant to water and frost
- Crack-bridging
- Permeable to vapour
- Excellent resistance to weathering
- Maintains its mechanical properties from -40 °C to +90 °C
- Excellent adhesion to ceramic or vitrified tiles
- The waterproofed surfaces can be used for domestic pedestrian traffic
- Resistant to detergents, oils, sea water and household products
- Quick and easy repair of parts that might be damaged mechanically
- As a binder for stone or sand carpet floors, is ideal for use on balconies or terraces maintaining adhesion, flexibility, elasticity.

Indicated use

- Transparent waterproofing of balconies, terraces.
- Transparent waterproofing ceramic surfaces
- Transparent waterproofing of glass
- Transparent waterproofing glass blocks
- Transparent waterproofing of clear plastics (poly-acrylate, polycarbonate plastic)
- Transparent waterproofing and protection of wood
- Transparent waterproofing of decorative systems

Colour Transparent

Consumption 0.3 to 1 kg/m² in 1 or 3 coats depending on the purpose, on a smooth surface and in optimal condition. Surface porosity, ambient temperature and method of application may vary consumption.



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Technical
characteristics
(typical
values)

PROPERTY	RESULT	METHOD
Composition	Pre-polymer, high solid polyurethane	
Elongation till break	≥ 300%	DIN EN ISO 527
Tensile strength	≥ 25 N/mm ²	DIN EN ISO 527
Tear resistance	≥ 50 N/mm ²	DIN EN ISO 34 Method 3
Elongation till break after 2000 hours of accelerated ageing (DIN EN ISO 4892-3, 400 MJ/m ²)	≥ 290 %	DIN EN ISO 527
Tensile strength after 2000 hours of accelerated ageing (DIN EN ISO 4892-3, 400 MJ/m ²)	≥ 25 N/mm ²	DIN EN ISO 527
Gloss retention after 2000 hours of accelerated ageing (DIN EN ISO 4892-3, 400 MJ/m ²)	optimal	DIN 67530
Marking on the surface after 2000 hours accelerated ageing (DIN EN ISO 4892-3, 400 MJ/m ²)	No marking	DIN EN ISO 4628-6
Shore hardness (shore D scale)	25	ASTM DD 2240
Vapour permeability	8 gr/m ² 24 hours	EN ISO 12572
Resistance to water pressure	No loss (1 m water column, 24 hours)	DIN EN 1928
Adhesion to absorbing ceramic tiles	>2 N/mm ² (break of tile)	ASTM D 903 (ELCOMETER)
Hydrolysis (5%KOH, 7 days)	No change	Laboratory
Exercise : range of ambient performance	From -40°C to +90°C	Laboratory
Touch dry	8 hours	+20°C 50% UR
Allowing foot traffic	24 hours	
Completely cured	7 days	
Chemical characteristics	Excellent resistance to detergents, sea-water, oil.	

Method of use Substrate Preparation

A careful preparation of the surface of the substrate is essential for the optimum finish and durability. The surface must be clean, dry, sound and free from contamination that can affect the adhesion of the membrane.

Maximum tolerable humidity level of the support is 5%. New concrete needs at least 28 days of curing. Old paint, dirt, grease, oil, organic substances and dust must be removed. Activate and degrease glass or vertical substrates with **PL MONO-tec Transparent PRIMER**. Surface irregularities must be levelled. All detached particles or dust must be completely removed. Do not wash the surface with water!

CAUTION: Surfaces with entrapped water (e.g. under the tiles of the balconies) must be completely dry (max 5% RH) prior to application of **PL MONO-tec Transparent**.

Warning: Do not apply to surfaces where there is capillary humidity of nitrate salts. Do not apply the product on surfaces previously treated with silanes, siloxanes, silicones or other waterproofing treatments as they can reduce strongly the adhesion.

In doubtful cases, perform an adhesion test. The same applies to marble or granite substrates.

REPAIR OF CRACKS OR JOINTS

A careful sealing cracks / fissures or existing joints, prior to application of the product, it is extremely important for an efficient and durable waterproofing. Thoroughly clean the joints, cracks, expansion joints and construction joints from dust, residue or contamination. Prime locally with **PL MONO-tec Transparent PRIMER**.



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PRIMING

Prime and activate all absorbent surfaces such as glazed tiles, glass etc. with **PL MONO-tec Transparent PRIMER**, impregnating a clean and dry cloth and then passing back and forth cleaning the entire surface. This application allows an effective degreasing. Often change the cloth. Ensure that the PRIMER is applied on all surfaces.

TRANSPARENT WATERPROOFING MEMBRANE

Pour the **PL MONO-tec Transparent** on the primed surface and spread with a suitable roller or dented trowel until the entire surface is covered, with a consumption of 0.3 to 0.5 Kg/m².

After 12 hours (no more than 18 hours), apply a second coat of **PL MONO-tec Transparent** using roller or brush.

For best results of wear resistance apply after 12 hours (18) hours a third layer.

CAUTION: Do not apply the product on thicknesses greater than 1 mm! For best results, apply at temperatures between 5°C and 35°C. Low temperatures delay and high temperatures accelerate the curing process. High humidity is negative and may also influence the appearance and finish.

FINISH

If you want a SATIN surface use **PL MONO-tec – FINISH**

APPLICATION OF THE TRANSPARENT COATING AS DECORATIVE WATERPROOFING MEMBRANE

Surface preparation

The surface must be clean, dry and sound, free from contaminants that may affect the adhesion of the membrane. Maximum humidity 5%. All dust and brittle, detached particles shall be removed. Do not wash with water.

Transparent coating

Apply the **PL MONO-tec Transparent** on decorative surfaces with a roller, at a consumption of 0.2 to 0.3 kg/m². On sandy decorative substrate a second coat after 6-18 hours is required. CAUTION: The system is SLIPPERY when WET. To avoid slip in wet conditions, sprinkle suitable aggregates in the product while still wet to create a non-slip surface.

APPLICATION AS A BINDER RESIN FOR SAND CARPETS

Surface preparation

The surface must be clean, dry and sound, free from contaminants that may affect the adhesion of the membrane. Maximum humidity 5%. All dust and brittle, detached particles shall be removed. Do not wash with water.

Priming

Prime the concrete surface with **PL MONO-tec Transparent** and sprinkle with silica sand when still wet.

COVERING THE SAND CARPET

Mix **PL MONO-tec Transparent** with COLOURED silica sand (0.7÷1.2 or 2÷3.5 mm) with a mixing ratio of 1:10 by weight (resin/sand) with a slow mixer until homogenous mixture. Place the mixture on the surface and apply with a trowel. For best results, apply in temperatures between +5°C and +35°C. In pails of 5 Kg and 10 Kg. Store in a cool and dry place (+5°C and -30°C) to a maximum of 9 months. Protect from moisture and direct sunlight. The product must remain in its original, sealed and unopened packaging, labelled with the numbers that mark the production date, and with safety labels. **The lids of the boxes are hermetically sealed to preserve the product. Often, after some permanence in stock, this sealing tends to remove the lids more difficultly. In these cases, after removal of the lids, these can mostly not be used again. Therefore, even when the lid comes off normally, once the packaging opened it is OBLIGATORY TO USE ALL THE CONTENT: otherwise the product shall start to polymerize and skin in a short time in the can.**

Packaging

Safety indications

Read carefully the information from the MSDS.

The above information is based on our best experiences and lab results and on results of the application of the product in various fields. Tecnochem Italiana is not responsible for negative performances due to not proper use of the product or for defects due to elements not connected with the quality of the product included wrong storage. Technical characteristic in this technical data sheet are up-to-dated periodically. Revision date of this technical data sheet is indicated below.

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