

TECHNICAL SHEET

THIXOTROPIC ELASTIC POLYURETHANE LIQUID MEMBRANE FOR CONTINUOUS WATERPROOFING

POLIUPLAN is a single component thixotropic elastic polyurethane liquid used for waterproofing.

The material vulcanizes in contact with atmospheric moisture, and produces an elastic membrane with excellent adhesion to different surfaces. Apply with roller or brush in one or two layers with a minimum total consumption of 2.0 – 2.5 kg/sq. m.

POLIUPLAN is recommended in applications with cracks in the support, thanks to its stretching capabilities combined with its low modulus properties. The product is based on pure polyurethane and hydrophobic resins, which give it excellent waterproofing properties.

POLIUPLAN can be effectively protected against UV rays with an application of a thin layer of the already pigmented **POLIUPLAN RIV.**



Certificazioni CE The product meets the EU guidelines for these types of materials, EOTA (European Organization of Technical Approval).

Use

- Waterproofing roofs
- Waterproofing balconies, terraces and verandas
- The POLIUPLAN waterproofed support can be left “in view” or tiled with a class C2TE glue.
- Waterproofing damp areas in bathrooms, kitchens, balconies, spare rooms, etc.
- Waterproofing of old asphalt, EPDM/PVC and acrylic membranes
- Protecting expanded polyurethane
- Waterproofing of bridges subject to pedestrian and vehicular traffic
- Waterproofing of hanging gardens, flowerbeds and pots
- Waterproofing and protection of concrete constructions including bridges, tunnels, stadium spectator seating, car parks etc.

Characteristics Advantages

- Thixotropic: it can be applied to vertical surfaces without dripping.
- Excellent adhesion to almost any surface, with or without special adhesion primers.
- No dilution is required; however it may always be diluted with Solvente-01.
- Good heat resistance. Maximum service temperature 80°C
- Resistance to low temperatures: the membrane remains elastic even at -40°C.
- Excellent mechanical properties, high tensile strength and good tear resistance
- Good resistance to chemical agents.
- Breathable when in contact with water vapour:
- the membrane breathes, avoiding the accumulation of moisture under the membrane.



Application Methods

It can be successfully applied to:

Cement, fibrocement, mosaic, cement tiles, old asphaltic and acrylic membranes as long as they adhere well to the support), wood, corroded metal, galvanized steel.

Cement support conditions (standard):

- Hardness: R28 =15 Mpa
- Humidity: W< 10%
- Temperature: from 5°C - 35°C
- Relative humidity: <85%

PRIMER choice for other conditions and other supports:

- Damp Support: **POLIUPLAN PRIMER**
- Highly porous supports: **POLIUPLAN PRIMER**
- Highly porous and damp supports: **POLIUPLAN PRIMER**
- Negative pressure or rising damp (Tanks): **POLIUPLAN PRIMER**
- Steel, galvanized steel, aluminium: **POLIUPLAN PRIMER**
- Wood: no primer **POLIUPLAN PRIMER**
- Asphaltic membranes and coverings: **POLIUPLAN PRIMER**
- Next coating after a number of days: **POLIUPLAN PRIMER**

RECCOMENDATIONS

When using **POLIUPLAN PRIMER**, on non-porous cement supports, we recommend diluting the primer with 5-10 % of Solvente-01.

PREPARING THE SUPPORT

Clean the surface using a water power washer, if possible.

Remove oil, grease, and contaminating soaps.

Remove the surface salts of the cement, any flaking particles, chemical agents released from the moulds, and membranes retarding cement evaporation.

Fill the irregularities of the support with the appropriate products.

PRIMER:

Apply the most appropriate primer following the list above

MIXING:

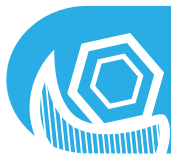
Use a low speed (300 rpm) electric mixer.

APPLICATION:

Apply at least two layers of the product with a roller or brush.

Do not allow more than 48 hours to pass between applying the two layers.

If more time elapses (for example more than 4 days), or if there are concerns about adhesion between the two layers, use **POLIUPLAN PRIMER**.



RÉSINES

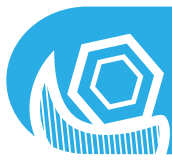
POLIUIPLAN

Dati Tecnici

LIQUID PRODUCT		
CATALYSIS RATIO	SINGLE COMPONENT	
Composition	~ 95% dry matter in xylene	
Viscosity at 20°C	3.000 ± 600 mPa.s.	EN ISO 2555
Volumetric mass	1,45 ± 0,07 g/cm3	EN ISO 2811-1
Flash Point	< 42°C	ASTM 43, Cup close
Time of drying to the touch	5-6 hours	Conditions: 20 ° C 50% RH
Over-coverage time	6-24 hours	
Final hardening time	7 days	

MEMBRANE		
Elongation at fracture	900 ± 80 %	ASTM D 412 - EN 12311-2
Non-volatile substance	> 95%	EN ISO 3251
Carbon dioxide permeability	Sd > 50 m	EN 1062-6
Capillary absorption and water permeability	< 0,01 kg/mq h 0,5	EN ISO 1062-3
Strength of adhesion through direct traction	> 4,0 MPa	EN 1542
Crack bridging Method A static Method B dynamic	A 5 (23) B 4.2 (23)	EN 1062 - 7
Tensile strength	7,45 + 0,3 N/mm2	EN 1062 - 7
Water vapour permeability	Sd < 5 m	ASTM D 412
Resistenza alla pressione dell'acqua	No loss (1 m of water, 24h)	EN ISO 7783-2
Adhesion to concrete	> 2,0 N/mm2	DIN EN 1928
Hardness (scale Shore A)	> 70	ASTM D 903
Resistance to penetration	Resistent	EN ISO 868
Impact resistance	4 Nm	UNE 53420
Solar reflectance (SR)	0,87	EN ISO 6272
Solar emission ()	0,89	ASTM E 903-96
Heat resistance (80°C for 100 days)	Passed no significant change	ASTM E 408-71
UV resistance (INVE 2000) lamp P - 500 W	Excellent	EOTA TR-01
Resistance after aging due to water	Passed	50 h a 70°C
Hydrolysis 30 days at 55°C	Excellent	EOTA TR-012
Fire class Building materials	B2	DIN 4102-1
Resistance to sparks and to radiant heat	Passed	DIN 4102-7
Chemical properties	Good resistance against acids and alkaline solutions (5%), detergents, sea water, oils and hydrocarbons	

Consumption Total minimum consumption: 2.0 – 2.5 kg/sq. m. with two layers



RÉSINES

POLIUPLAN

Cleaning

Clean tools and equipment first with sheets of paper, then with Solvente-01
The rollers will not be reusable.

Pulire gli attrezzi e l'equipaggiamento prima con fogli di carta poi con Solvente-01.
I rulli invece non saranno riutilizzabili.

Health warnings

POLIUPLAN contains volatile and flammable solvents.

Apply in well-ventilated areas.

Do not smoke.

Do not apply in the presence of open flames.

Use forced ventilation and active carbon masks in confined spaces.

Remember that solvents are heavier than air and are therefore more concentrated closer to the ground.

Ask for the Product Safety Data Sheets.

Storage

POLIUPLAN can be stored for a minimum of 12 months in original and unopened tubs, at a temperature of 5° C - 25° C in a dry place.

Once opened use immediately

Package

1 Kg , 5 Kg , 15 Kg , 20 Kg e 200 kg TUBS