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DESCRIPTION:

DESMOPOL is a liquid monocomponent material made up from pure polyurethane elastomeric, which once catalyzed forms a continuous elastic membrane, without any joins or overlapping or the need for any surface mesh. Its properties make it an excellent choice for achieving air-tightness and perfect waterproofing on a multitude of surfaces and substrates.

It is applied manually, using a roller or brush and, exceptionally, using specific spray equipment.

It has CE marking on the basis of a statement made DoP Declaration of Performance conforms to the regulations UE305 / 2011. Declaration available in www.tecnopolgroup.com or on demand.

ACCEPTED USES:

To waterproofing or coating:

- Roofs, terraces, balconies and overhangs.
- Metal and asbestos roofs.
- Swimming pools, artificial lakes and ponds.
- Roof gardens.
- Retaining walls and foundations
- As a protection over TECNOFOAM (polyurethane foam).

GENERAL FEATURES:

- **DESMOPOL** is a highly elastic and wear-resistant membrane that, once applied, offers great stability and durability.
- Thanks to its versatility **DESMOPOL** adapts to any surface, making it the ideal product for application on uneven surfaces and in areas of any shape, whether curved or squared.
- No surface reinforcement is required, only singular points of encounters with other building elements.

CE

Liquid Waterproofing System, Based on Pure Polyurethane

EOTA CERTIFICATION		
	ETA validation	10/0121
	Minimum thickness	1,2 mm
	Working life of the system (EOTA certification)	25 years - W3
	Tensile strength	5~6 MPa
	Elongation	≥418%
	Roof slope	S1 ~ S4
	Surface temperature range	-20 ~ +90 ºC
	External fire performance (EN 13501-5)	Broof (t1)
	Fire reaction	Euroclass E
	Resistance to wind loads	Able > 50KPa
	Resistance to water vapour (EN 1931)	μ = 2.500
	Water vapor permeability (EN 1931)	14 g(m²/d)
	Resistance to plant roots (EN 13948)	In process

- **DESMOPOL** membrane can be applied in a single layer of 1.5 mm. of thickness by mixing with DESMOPOL ACELERADOR, this fact increases the execution speed and thus reduces the direct costs of application. With this system, do not use airless machine. Do not use this additive with temperatures above 25 ° C, or in any case, store

the drums in cool and not sunny areas..

- Applying **DESMOPOL** saves in seals and any other kind of joins, as the finish is uniform and makes up a single layer, providing a surface with optimum maintenance and cleaning properties.
- The **DESMOPOL** polyurethane membrane system should be applied in dry conditions avoiding the presence of humidity or water coming from the surface to be coated or the substrate, whether at the time of application or subsequently (pressure from phreatic water level).
- In the event there is humidity in the substrate at the time of application, consult the technical specifications of our primers where the maximum humidity ranges are specified.
- The **DESMOPOL** system requires solar radiation protection (UV rays) to ensure it does not lose its properties, given that it is an aromatic membrane. We recommended the application of our protective varnish, TECNOTOP 2C/2CP colored, for use in the absence of other physical protection elements.
- The **DESMOPOL** system's properties enable it to bond to any surface, such as cement, concrete, polyurethane, metal, etc. Furthermore, due to its resistance it can be walked on and it will accept a rough finish to make it non-slip.
- **DESMOPOL** is immune to temperature changes of between -40º and +80º, conserving its elastic properties.
- The **DESMOPOL** polyurethane membrane is a self-leveling membrane that requires additives for its application on sloped surfaces or areas with a gradient of more than 1,5%.
- The repairs are easily localizable and are easy to carry out.

YIELD:

Product yield is 1.5 to 2 kg/m^2 with a thickness of 1.1 to 1.7 mm, applied in ONE or various, depending on the application method and conditions.

PRESENTATION FORMATS:

Metal tins of 6 and 25 kg.

COLOURS

Grey, brown. No RAL specificity.

EXPIRY:

12 months at temperatures between 5° C and 25° C, provided it is stored in a dry place. Once the tin has been opened, the product must be used immediately.

APPLICATION:

In general, the following aspects should be dealt with prior to spraying:

- Repair the surface (fill in depressions, eliminate unevenness, eliminate any old waterproofing, etc.).

- Clean the surface or substrate, removing any dust, dirt, grease or efflorescence.

The **DESMOPOL** polyurethane system can be applied to many different surfaces and the procedure will vary depending on its nature or state.

Below we set out some of the application for the most common surfaces; for other surfaces not described, please contact our technical department.

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Concrete substrate

Any depressions or voids should be repaired using a mix (ratio of 1:4) of our epoxy resin PRIMER EP-1020 mixed with silica sand., or the same resin mixed with calcium carbonate (ratio of 1:2).

The concrete should be completely cured (concrete curing takes 28 days) or, in any case, the maximum level of humidity allowed for the substrate should be verified, depending on the primer used.

Any concrete laitance or release agents should be eliminated and an open pore surface achieved by grit blasting, milling or sanding.

Next, clean and eliminate all contaminants from the elements, such as dust or particles from the previous processes.

Apply the primer in the conditions and with the parameters indicated in the technical specifications for these products. In general, the dual component polyurethane PRIMER PU-1050 should be used.

Metal substrate:

Metal surfaces should be prepared using sand-blasting, in order to improve the surface's mechanical fixation properties. In many cases the application of corrosion inhibiting products will be required.

Check the seals and overlaps and where necessary seal with DESMOSEAL MASILLA PU mastic or TECNOBAND 100, in combination.

For rapid and efficient cleaning of the surface use a ketone based solvent, our DILUYENTE TEC-4U Thinner.

Apply prior priming using a water-based epoxy type primer, our PRIMER EPw-1070, to improve surface leveling and bonding. Consult the technical specifications of this product.

Ceramic substrate:

Ceramic surfaces should not have empty joints or loose elements or parts. These should be filled with DESMOSEAL MASILLA PU mastic, complemented with TECNOBAND 100 on the joints if necessary.

For rapid and efficient cleaning of the surface use pressurized water and check that it evaporates completely. Also verify that all dust and other physical contaminants have been eliminated. Evaluate the action of a continuous surface milling.

Next apply the required primer; in these cases of non-porous surfaces use the water-based epoxy PRIMER EPw-1070.

Next apply the required primer; in these cases of non-porous surfaces use the water-based epoxy PRIMER EPw-1070.

Always consult the waiting and drying times and application conditions for all products in the Specification Sheet for each product or in the technical manual for application of the **DESMOPOL** (TMA) system.

Yield can vary depending on the type and nature of the substrate and the surface texture. See the technical specifications for each product or contact our Technical Department.

HANDLING AND TRANSPORT:

These safety recommendations for handling, are necessary for the implementation process as well as in the pre-and post, on exposure to the loading machinery.

Respiratory Protection: When handling or spraying use an air-purifying respirator.

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Skin protection: Use rubber gloves, remove immediately after contamination. Wear clean body-covering. Wash thoroughly with soap and water after work and before eating, drinking or smoking.

Eye / Face: Wear safety goggles to prevent splashing and exposure to particles in air.

Waste: Waste generation should be avoided or minimized. Incinerate under controlled conditions in accordance with local laws and national regulations.

Anyway, consult the safety data sheet of the product, are publicly available.

COMPLEMENTARY PRODUCTS:

The **DESMOPOL** system may be complemented with the following products as a means of protection or to improve its physical-mechanical properties depending on its exposure, the desired finish or the type of substrate.

PRIMER EP-1020: Mixed with silica sand in a ratio of 1:4 this is used to fill in depressions in concrete surfaces, rapidly providing a firm and fast drying even base.

PRIMER PU-1050 | PRIMER EPw-1070 | PRIMER PUc-1050 |PRIMER PU-1000: These primers are applied on the substrate beforehand to improve bonding and level the surface, as well as regulating the humidity in the substrate (see permitted levels in their technical data sheet).

Performance may vary depending on the type of support, nature or surface texture. Check the technical specifications of each product to or our technical service.

TECNOTOP 2C-: Dual-component colored aliphatic polyurethane varnish used to protect roofs and floors or ground against UV rays when there is no other protection.

TECNOTOP 2CP-: Dual-component colored aliphatic polyurethane varnish used to protect against UV rays and chlorinated water when waterproofing swimming pool, lakes and aquariums.

TECNOPLASTIC F: This plastic powder, once mixed with TECNOTOP 2C/2CP, forms a rough surface, conforming even to norm UNE-ENV 12633: (floors slipperiness), to achieve Class 3 (>45 slip resistance), depending on dosage (consult our technical department).

DESMOPOL ACELERADOR: Additive that allows the application of the membrane **DESMOPOL** IN SINGLE-USE Also that accelerates the membrane's drying and curing time in applications in humid or cold atmospheres. (Check conditions in technical data sheet)

TIXOPOL L: Additive that provides thyrotrophic properties, specifically designed to be mixed with **DESMOPOL** to enable application on vertical surfaces.

G80: Polypropylene monopolymer mesh for reinforcing the membrane in specific areas.

TECNOBAND 100: Cold bond deformable band made up of an upper layer of non-woven textile and lower layer of viscoelastic self-adhesive coating, which together allow it to adapt to the shape of the substrate. This band is ideal when dealing with structural joints and overlapping metal materials.

DESMOSEAL MASILLA PU: Polyurethane mastic for filling joints (use together with TECNOBAND 100 when necessary).

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TECHNICAL DATA :

PROPERTIES	VALUES	METHOD
Specific gravity (kg/m³)	1.320 ~ 1.420	DIN 53 217
Viscosity at 23ºC	2.650 cps	ASTM D2196-86
Dry extract at 105ºC % weight	>90	EN 1768
Flash Point (ºC)	42ºC	ASTM D93
Ashes at 450ºC % weight	42 ~ 47%	EN 1879
Support ~ environment temperature	5ºC ~ 35ºC	
Hardness Shore A at 23ºC	>75	
Tensile strength (initial/aged)	5~6 MPa	
Dry time at 23ºC and 55% relative humidity without DESMOPOL ACELERADOR	±5~±6 hours (according Tº and RH environmental)	
Dry time at 23ºC and 55% relative humidity with DESMOPOL ACELERADOR	±2~±3 hours (according Tº and RH environmental)	
Repainted time without DESMOPOL ACELERADOR	±5 ~ ±48 hours	
Repainted time with DESMOPOL ACELERADOR	±3 ~ ±24 hours	
Tensile strength at 23 ºC	5 ~7 MPa	
Rate elasticity at 23 ºC	±418 %	
Water vapor resistance	μ=2.500	
Water vapor permeability	14 g(m²/day)	
Concrete adherence at 23ºC	>2 MPa	