



**DESMOPOL DW - TWO COMPONENT, THIXOTROPIC, SOLVENT FREE, 100% SOLIDS AROMATIC POLYURETHANE (POTABLE WATER CONTACT)**

DESMOPOL DW is a two component liquid made up from 100% solids aromatic polyurethane, which once catalyzed forms a continuous elastic membrane, without any joints, overlapping or any integrated mesh needs. Its properties make it an excellent choice for achieving air-tightness and perfect waterproofing. It is applied manually, using a roller or brush.



## USES

Liquid polyurethane water based membrane, to waterproof or coating:

- water tanks on concrete.

**NOTE:** call our technical department about the application to other supports or situations

recommended thickness	± 1,5~2 mm
dry time at 23°C	± 5~6 hours
elongation at break at 23°C	>100%
tensile strength at 23°C	± 8 MPa
application methods	By roll, brush
coats	2 coats by roll or brush to achieve the recommended thickness



## COLORS

White

## GENERAL FEATURES

- DESMOPOL DW is an elastic and wear-resistant membrane that, once applied, offers great stability, durability and waterproof performance
- It's an thixotropic liquid polyurethane, so, it can be applied on vertical surfaces
- The DESMOPOL DW is an aromatic membrane



- It can be applied for a drinking water tanks (**under BS-6920 "Suitability of non-metallic products for use in contact with water intended for human consumption with regards to their effect on the quality of the water", NSF international laboratories**)
- Thanks to its versatility DESMOPOL DW 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
- DESMOPOL DW membrane requires to be applied in coats of 1 mm of thickness each
- Applying DESMOPOL DW 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.
- If there is humidity or moisture in the substrate at the time of application, check the technical specifications of our primers where the maximum support humidity ranges are specified.
- DESMOPOL DW resists temperature changes between -40°C and +80°C.
- The repairs are easily localizable and are easy to carry out (see "REPAIR AND OVERLAPS PROCEDURES")

## THICKNESS AND YIELD RECOMMENDED

The membrane recommended thickness is up to 1,5 to 2 mm (aprox. data), so the yield/consumption will be 2 to 2,5 kg/m<sup>2</sup>.

## PACKAGING

Metal tins of: 12,2 kg+2,8 kg

## SHELF LIFE

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.

## SURFACE PREPARATION

In general, you should take the following factors:

- Surface reparation ( fill the cracks and fissures, remove old existing waterproofing paints...).
- Clean up the surface, removing dust, oils and grasses, and existing chippings.
- Support will be strong and dry.
- The supports must be firm and dry. No moisture or humidity inside or by capillarity from the backfill.

You can apply DESMOPOL DW liquid waterproofing membrane over several supports and materials. Below we set out the application on concrete, for other surfaces not described, please call our technical department.

### Concrete substrate

- 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 latencies or release agents should be eliminated and an open pore surface achieved by grit blasting, milling or sanding.
- any cracks, and damaged areas must be repaired using a epoxy mortar, mixing our epoxy resin PRIMER EP-1020 with SILICA SAND (ratio of ±1:4), or the same resin mixed with calcium carbonate (ratio of ±1:2).
- MASTIC PU must be used on fissures or small cracks in the surface.
- existing joints or seals: remove the old material, clean up and fill with MASTIC PU and TECNOBAND 100 matting.
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next one, clean up well and eliminate all contaminants from the elements, such as dust or chippings, using dry methods preferably.

- apply the primer resin in the conditions and the parameters indicated in the technical specifications for these products. On concrete, we recommended the two-component polyurethane resin PRIMER PU-1050 / PRIMER PU-1000 / PRIMER PUc-1050. See the TDS of each product before the application
- apply DESMOPOL DW polyurethane membrane (according to the following methodology)

## APPLICATION

Once the surface preparation and primer application are done, as conditions, proceed to extends of the polyurethane membrane, using this method:

### By layers application

- Open the DESMOPOL DW metal tin and stir up to homogenize
- Extended a first coat using a short hair roller, maximum thickness 1,0 mm, (applying the material without dilution)
- Wait for complete drying (depend on the weather conditions), about 5~6 hours
- Then, apply the next coat, in the same way as above
- Repeat this process as many times as necessary to achieve the desired or recommended thickness.
- two days after finishing application, clean up the surface, using a neutral soap
- wait 6 days from the application, to fill completely with water

## REPAIR AND OVERLAPS PROCESSES

### REPAIR

In cases where the membrane repair by accidental causes, or assembly procedures not covered installations that require drilling on polyurethane membrane DESMOPOL DW, the procedure is required, shall be as follows:

- cut, removal of the affected area and / or damaged surface
- sanding this area extending about 20~30 cm. around the perimeter, for overlapping security
- cleaning (vacuuming) of waste generated (powder, dust...); if it's possible don't use water, and if used, support humidity value; ketones applicability based solvents for reducing this type of surface cleaning
- apply thin layer ( $\pm 80$  g/m<sup>2</sup>) of polyurethane resin PRIMER PU-1000
- light spread SILICA SAND over the wet primer applied before
- wait for the total drying
- apply DESMOPOL DW

### OVERLAPS

In cases has been exceeded recoat time (48~72 hours), so the waiting time between jobs is prolonged, proceed as follows:

- sanding strip longitudinal overlap of about 20~30 cm. wide
- cleaning (vacuuming) of waste generated (powder, dust...)or existing dust; if it's possible, do not use water, and if it's used, check the support humidity value; ketones applicability based solvents for conducting this type of surface cleaning
- apply thin layer ( $\pm 80$  g/m<sup>2</sup>) of polyurethane resin PRIMER PU-1000.
- light spread SILICA SAND over the wet primer applied before
- wait for the total drying
- apply DESMOPOL DW



## HANDLING

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.
- 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 material and safety data sheet of the product (MSDS)

## COMPLEMENTARY PRODUCTS

The DESMOPOL DW membrane 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 (ratio±1:4), or calcium carbonate (ratio±1:2) 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).
- TECNOBAND 100: cold bond deformable band made up of an upper layer of non-woven textile and lower layer of viscose 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.
- MASTIC PU: polyurethane mastic for filling joints and fissures (use together with TECNOBAND 100 when necessary).

**NOTE:** see all the TDS of all products, or consult our technical department



## TECHNICAL DATA

PROPERTIES	VALUES
Specific gravity at 23°C ISO 1675	1.200±5% kg/m <sup>3</sup>
Viscosity at 23 °C (A+B) ISO 2555	12.500 ±200 cps
Solids content ISO 1768	100%
Tensile strength at 23°C ISO 527-3	±8MPa
Elongation at break at 23°C ISO 527-3	>100%
Fire reaction	Euroclass F
Support/environment range temperatures	5 °C~35 °C
Hardness Shore A at 23 °C DIN 53.505	>90
Hardness Shore D at 23 °C DIN 53.505	>50
Initial dry time at 23 °C and 55% relative humidity	±5~6 hours
Recoat time	±6~24 hours
Concrete adherence at 23°C	>1,5MPa

The values in this table are approximate and can vary depending on the situation of the support or application methodology employed

