



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

Desmopol DW is a two-component liquid made up of 100% solids aromatic polyurethane, thixotropic, 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 in potable water contact. It is applied manually, using a roller or brush.

It has a WRAS approval for use in contact with water intended for human consumption, under the British Standard BS-6920.

It has CE marking on the basis of a statement made DoP Declaration of Performance (DoP) conforms to the regulations UE305/2011,



USES

Polyurethane liquid membrane for waterproofing or coating:

- potable water for human consumption tanks (on concrete). Not exposed to UV rays

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

density	1.38± 5% g/cm ³
recommended minimum thickness	± 1,5~2 mm
dry time	± 5~6 hours
tensile strength	>10 MPa
elongation at break	>110 %
application methods	By roll, brush



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 a thixotropic liquid polyurethane, so, it can be applied on vertical surfaces
- Desmopol DW is an aromatic membrane (not exposition to UV rays)
- Don't add solvent or another similar liquid to reduce viscosity.
- It can be applied for drinking water tanks (**WRAS approval 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**). Check and confirm the availability.
- 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.(40 mils) of thickness each; recommended minimum total thickness, 1,5 mm.(60 mils) (total consumption: $\pm 2,05 \text{ kg/m}^2$)
- 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 water temperatures between -20°C and $+60^{\circ}\text{C}$. (maximum temperature $+80^{\circ}\text{C}$ only during 24 hours)
- The repairs are easily localizable and are easy to carry out (see "REPAIR AND OVERLAPS PROCEDURES")

THICKNESS AND YIELD RECOMMENDED

The recommended thickness is up to 1,5 to 2 mm (60-80 mils), so the consumption must be: 2,05 to 2,75 kg/m².

PACKAGING

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

SHELF LIFE

12 months at temperatures between 41 to 95 °F (5°C to 35°C), provided it is stored in a dry place, keep away from direct sunlight, extreme heat, cold, or moisture. Once the tin has been opened, the product must be used immediately.

APPLICATION METHOD

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

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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 an epoxy mortar, mixing our epoxy resin PRIMER EP-1020 with SILICA SAND (ratio of $\pm 1:4$), or the same resin mixed with calcium carbonate (ratio of $\pm 1:2$).
- 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.
- next, 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 these primers: PRIMER PU-1050 / PRIMER EPw-1070 / PRIMER PUC-1050 / PRIMER WET. See the TDS of each product before the application
- apply DesmopolDW polyurethane membrane (according to the following methodology)

APPLICATION

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

By layers application

- Open the Desmopol DW metal tins (comp A. and comp B.), mix and stir up to homogenize using an electric mixer, medium speed
- Extended the 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 for 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, 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 a thin layer (100-150 g/m²) of polyurethane resin PRIMER PU-1050, PRIMER EPw-1070
- 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 (24~48 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 a thin layer (100-150 g/m²) of polyurethane resin PRIMER PU-1050, PRIMER EPw-1070.
- light spread SILICA SAND over the wet primer applied before
- wait for the total drying
- apply Desmopol DW

HEALTH AND SAFETY

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 the 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-1010: 100% solids, two-component, fillerized epoxy resin, to fill in depressions in concrete surfaces, one coat application so, rapidly providing a firm and fast drying even base.
- PRIMER PU-1050/PRIMER EP-1040/PRIMER EPw-1070/PRIMER PUc-1050 |PRIMER PU-1000 | PRIMER EP-1020: these several resins 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 specifications). Consumption may vary depending on the type of support, nature, or surface texture. Consult the technical specifications of each product or our technical department.
- TECNOBAND 100: the cold bond deformable band made up of an upper layer of non-woven textile and a 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
Density	ISO 1675	1.38±5% g/m ³
Viscosity	ISO 2555	12.500 ±200 cps
Density components A/B	ISO 1675	1.30-1,40 g/cm ³ - 1.10-1,10 g/cm ³
Viscosity components A/B	ISO 2555	24.000-30.000 cps - 600-700 cps
VOC(volatile organic compounds)		0
Solids content	ISO 1768	100%
Tensile strength	ISO 527-3	>10 MPa
Elongation at break	ISO 527-3	>110%
Tear strength	ISO 34-1	36 N/mm
Hardness Shore A	DIN 53.505	>80
Hardness Shore D	DIN 53.505	>50
Pot life at 23°C		30-35 min.
Dry time at 23 °C and 55% relative humidity		±5-6 hours
Ambiance range temperatures		5 °C~35 °C
Recoat time		±6~24 hours
Concrete adherence		>1,5MPa
Fire reaction		Euroclass E
Liquid range constant temperature		-20°C ~ +60°C

Results performed in the laboratory at 23°C and 50% RH, under controllable conditions. These values may vary depending on the application, climatology, or substrate conditions.

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. The customer assumes full responsibility for quality control, testing, and determination of the suitability of products for its intended application or use.

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