



# Capa PROOF PU W

Dual-component polyurethane waterproofing membrane, without solvents (suitable for contact with drinking water)

- Solvent-free
- Approved for contact with drinking water
- High elasticity
- High performance

## DESCRIPTION

100% solids, dual-component polyurethane elastomer that produces a waterproof, aromatic, continuous, elastic, thixotropic membrane that adheres completely to the substrate without joints or overlaps as well as being 100% watertight, with properties that make it excellent for application in areas that must be watertight, not exposed to sunlight, and in contact with water for human consumption.

The material complies with the parameters analysed under Spanish Royal Decree 140:2003 and its amendments included in Royal Decree 902/2018. It has WRAS approval for the British market for contact with water for human consumption under BS-6920.

It is CE marked on the basis of a Declaration of Performance (DoP) drawn up in accordance with EU regulation 305/2011 (89/106/EC).

## RECOMMENDED THICKNESS AND CONSUMPTION

The recommended thickness of the Capaproof PU DW membrane is between 1.5 to 2 mm thick, therefore the yields of the product will be between 2.05 to 2.75 kg/m<sup>2</sup>.

## PRESENTATION

It comes in a kit comprising 12.2 kg + 2.8 kg metal drums.

## USE

Polyurethane membrane system for waterproofing and coating in:

- Tanks, reservoirs or container elements, concrete substrates, and where there is contact with potable water (not exposed to UV rays).

*NOTE: consult our technical department for application on other types of substrates or settings.*

## EXPIRY

The shelf life of both components is 12 months stored at a temperature between 5 °C to 35 °C in dry locations. Once opened, the drum must be used.

## COLOURS

- White

## KEY DETAILS

Density	1.35± 0.05 g/cm <sup>3</sup>
Recommended thickness	±1.5-2 mm-
Drying	±5-6 hours
Tensile strength	>10 MPa
Elongation	>110 %
Method of application	Toothed trowel, roller

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## GENERAL CHARACTERISTICS

- CAPAPROOF PU W forms a waterproof, aromatic, thixotropic, elastic membrane which, once cured, offers high stability and durability.
- CAPAPROOF PU W is an aromatic resin (and as such must not be exposed to UV rays).
- Do not add solvents or other liquids to modify viscosity or other characteristics.
- Suitable for application in situations involving contact with drinking water: the material complies with the parameters analysed under Spanish Royal Decree 140:2003 and its amendments included in Spanish Royal Decree 902/2018, and has WRAS approval, under British Standard BS-6920 "Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water", NSF International Laboratories). Review the information provided by the standard to accept the desired application.
- Apply coats of 1 mm thickness each; recommended minimum total thickness of 1.5 mm (total consumption  $\pm 2.05$  kg/m<sup>2</sup>).
- Surface reinforcement is not necessary except at singular points that meet other construction elements.
- With the application of CAPAPROOF PU W, savings are made on joints and any type of union as the finish is uniform and in one piece, providing a surface with optimum maintenance and cleaning.
- The CAPAPROOF PU W polyurethane membrane system must be applied in conditions where there is no moisture or water coming from the substrate, either at the time of application or afterwards (water table pressure, etc.)
- In the case of existing moisture in the substrate at the time of application, consult the technical data sheets of our primers where the maximum moisture ranges are specified.
- CAPAPROOF PU W withstands working temperatures of stored liquids from -20°C to +60°C (with occasional rises to a maximum 80°C during 24 hours).
- Repairs are easy to locate and simple to repair (see "REPAIR AND SOLARISATION PROCEDURE").

## APPLICATION PROCEDURE

In general, the following factors should be taken into account prior to spraying:

- Repair of surfaces (filling of cracks, elimination of irregularities, removal of old existing waterproofing.....)
  - Work at specific points (unions with vertical walls, drains/evacuations, expansion or structural joints).
  - Cleaning of the substrate, removing dust, dirt, grease or existing efflorescence.
  - The substrate (especially levelling or thickening mortars) must be sufficiently compressive to support the bond strength of the membrane. If this is not the case, our primers will be used to achieve this goal.
  - If in doubt, apply to a limited area to check the condition of the surface.
- Below, we define the application on some of the most common surfaces, although if you have different needs, please contact our technical department.

### Concrete substrate

- The concrete must be fully cured (the process takes 28 days); in any case it is necessary to check the maximum degree of permissibility of substrate moisture depending on the primer to be used.
- Slurry or release agents must be removed and therefore, an open pore and solid surface must be achieved by sanding, polishing, milling, surface shot blasting, to be decided according to the conditions of the substrate.
- Existing cracks or areas with missing material must be repaired with a mixture (ratio  $\pm 1:4$ ) of our epoxy resin CAPAPROOF PRIMER EP and silica aggregate, or a mixture of the same resin with calcium carbonate (ratio  $\pm 1:2$ ).
- Small cracks or irregularities will be repaired by filling with CAPAPROOF MASTIC PU.
- Existing expansion joints: remove the existing joint material, clean thoroughly and fill with CAPAPROOF MASTIC PU, covering with CAPAPROOF BAND.
- Make a perimeter half-round at the joints of the slabs with the vertical elements, applying a bead of CAPAPROOF MASTIC PU.
- Contaminants such as dust or solid particles should then be cleaned and removed from the entire surface, preferably by dry methods (dry vacuuming).
- Apply the primer under the conditions and within the parameters indicated in the data sheets of these products. In general, CAPAPROOF PRIMER EP ALL /CAPAPROOF PRIMER WET primer should be used. Consult its technical data sheets beforehand for drying times and other characteristics of its application.
- Application of CAPAPROOF PU W polyurethane membrane (according to the methodology specified below).

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## APPLICATION

Once the substrate has been prepared and the primer has been applied, according to the conditions, the polyurethane membrane will be applied according to the following methods:

### Application

- Open the canisters of the two Capaproof PU W components.
- Pour the contents of component B into the drum of component A and stir well until uniformly blended by means of medium speed mixing equipment.
- Use a short-nap roller to spread an initial coat with a maximum thickness of 1.0 mm (apply the material as normal, without dilution).
- Wait for total drying, which (depending on the weather conditions) should take approximately 5–6 hours.
- Application of the following layer, with the same conditions as above.
- Repeat this process as many times as necessary to achieve the desired thickness.
- Two days after application, wash the surface with neutral soap to remove residues or unwanted elements.
- Wait 6 days after filling in the case of drinking water or water for human use.

## REPAIR AND OVERLAPPING PROCEDURE

In cases where it is necessary to repair the membrane due to an accident, or when the assembly of unforeseen installations requires perforations on the membrane, the procedures to be followed shall be as follows:

### Repairs

- Trimming, removal of the affected and/or damaged area.
- Surface sanding of the affected area, extending this area by 20-30 centimetres around the entire perimeter, as a safety overlap.
- Cleaning (vacuuming) of the residues generated (dust); if possible and if water is used, assess the humidity of the substrate; there is the option to apply ketone-based solvents for this type of surface cleaning.
- Thin film application ( $\pm 100-150 \text{ g/m}^2$ ) of one of the following resins: CAPAPROOF PRIMER EP ALL.
- Lightly spread silica aggregate while the primer resin is still wet and wait for it to dry completely.
- Application of CAPAPROOF PU W with the thickness defined in the project.

### Work overlap

In cases where the recoating time (48–72 hours) has been exceeded, i.e. the waiting time between jobs has been extended, proceed as follows:

- Sanding of a longitudinal overlap strip approximately 20–30 cm wide.
- Cleaning (vacuuming) of the residues generated (dust); if possible, do not use water, and if water is used, assess the humidity of the substrate; possibility of applying ketone-based solvents for this type of surface cleaning.
- Thin film application ( $\pm 100-150 \text{ g/m}^2$ ) of one of the following resins: CAPAPROOF PRIMER EP ALL.
- Lightly spread silica aggregate, while the primer resin is still wet.
- Wait until completely dry.
- Application of CAPAPROOF PU W with the thickness defined in the project.

## HANDLING AND TRANSPORT

These safety recommendations during handling are necessary during the execution process, as well as in the processes before and after the execution in situations of exposure to machinery under load.

- **Skin Protection:** Wear rubber gloves. Remove immediately after contamination. Wear clean clothes that cover the whole body. Wash thoroughly with soap and water after work and before eating, drinking or smoking. Contaminated clothing should be washed and/or dry-cleaned.
- **Eye/face protection:** Safety glasses must be worn to avoid splashes.
- **Waste:** Waste generation must be avoided or minimised. Incinerate under controlled conditions in accordance with local and national laws and regulations.

In any case, consult the existing safety data sheets in force for the product.

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## ACCESSORIES

When applying the CAPAFLOOR PU W system, the following products can be applied as complements to its use. They may thereby be protected and their physical-mechanical characteristics improved depending on their exposure, the desired finish or external conditioning factors.

- CAPAPROOF PRIMER EP EP-1010: epoxy resin mortar with incorporated fillers for filling and filling existing cracks in concrete or ceramic surfaces, to be applied in a single coat.
- CAPAPROOF PRIMER EP ALL: water-based epoxy resin for pre-application on concrete, asphalt sheeting, metal or ceramic substrates, improving adhesion, absorbing moisture residing in the substrate and regularising the flatness of the substrate.
- CAPAPROOF PRIMER WET: epoxy resin for pre-application on concrete or ceramic substrates, improving adhesion, absorbing moisture residing in the substrate and regularising the flatness of the substrate.
- CAPAPROOF BAND: deformable cold adhesive band, composed of an upper layer of non-woven mesh and a visco-elastic self-adhesive lower layer, both of which allow adaptation to the shape of the substrate. Suitable for use in joints and overlaps between metallic materials.
- CAPAPROOF MASTIC PU: polyurethane joint filler (use in conjunction with CAPAPROOF BAND where necessary).

NOTE: Consult the technical data sheets or our Technical Department.

## PROPERTIES OF THE MEMBRANE

PROPERTIES	RESULT
Density ISO 1675	1.35± 0.05
Viscosity ISO 2555	12,500 ± 200 cps
Density components A/B ISO 1675	1.35± 0.05 g/cm <sup>3</sup> - 1.10± 0.05 g/cm <sup>3</sup>
Viscosity components A/B ISO 2555	24,000-30,000 cps /500-800 cps
Solids content ISO 1768	100%
VOC	0
Tensile strength ISO 527-3	>10 MPa
Elongation at break ISO 527-3	>110 %
Tear resistance SO 34-1	36 N/mm
Shore surface hardness A /D DIN 53.505	>80 / >50
Pot life	±30-35 min
Drying	±5-6 hours
Recoatibility range	±6-24 hours
Adhesion to concrete	>1.5
Fire resistance	Euroclass E
Sustained temperature resistance of water in contact with water	-20°C~60°C

Results obtained in the laboratory at 23°C and 50% RH, under standard conditions. These values may vary depending on the application, climatic and substrate conditions.

### NOTE

The recommendations for use are based on our knowledge and experience. The technical data have been obtained under normal laboratory conditions and may vary depending on the conditions of installation. As the conditions of application are beyond our control, the information in this sheet does not imply any liability on the part of the company.