



# Capa PROOF PUA P

100% pure polyurea membrane  
for waterproofing and protection

- Great mechanical resistance
- Classification W3, 25 years of useful life
- Valid contact with drinking water
- Waterproofing of bridge decks

## DESCRIPTION

CAPAPROOF PUA P is a dual-component sprayable aromatic coating, suitable for waterproofing, protection and sealing. It is composed of two highly reactive liquid components, isocyanates and amines, which are mixed using our specific spraying equipment, to form a solid, continuous, watertight and waterproof pure polyurea membrane, without joints or overlaps, with high mechanical and elongation qualities.

It is CE marked on the basis of a Declaration of Performance (DoP) drawn up in accordance with EU regulation 305/2011.1.

## HIGHLIGHTED

Recommended minimum thickness	±1.5 mm (service life W3, 25 years)
Initial drying	± 5 seconds
Tensile strength	>20 MPa
Elongation	>350 %
Shore A hardness	>93
VOC (Volatile Organic Compounds)	0
Method of application	Dosing equipment

## USE

For the waterproofing and protection of:

- Flat walkable roofs, terraces, balconies and pitched roofs.
- Inverted roofs (bottom insulation).
- Floors and decks with vehicular traffic, slip resistant finish (CTE SUA 1, Class 3 ENV 12633:2003).
- Drinking water tanks and irrigation canals (WRAS and RD 140/2003,98/83/CE).
- Bridge overlays (under asphalt), and elements of the civil sector (guide 033, ETE in force).
- Industrial flooring with requirements for impermeability and mechanical resistance (EN 1504.2).
- Concrete slabs, retaining walls and foundations (EN1504.2).
- Roof gardens (P4:TH4, ETE in force).
- Power plants, recycling plants, petrochemical plants, waste water (EN1504.2).
- Swimming pools, aquariums, ponds, even marine environments.
- Vehicle and boat coatings.
- Pitched or flat roofs of corrugated fibre cement, asbestos or similar.
- Protection of polyurethane foam thermal insulation systems.

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

## PACKAGING

It comes in two sizes of product kits:

- Metal drums of 225 kg each (Component A: isocyanates and Component B: amines).
- Metal drums of 60 kg each (Component A: isocyanates and Component B: amines).

## 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. When opening the drums, mechanically shake component B (blue drum) to ensure good mixing of the internal components.

## COLOURS

- White
- Grey
- Black
- Red

\* The 60kg kit format is only available in grey

# Capa PROOF PUA P

## GENERAL CHARACTERISTICS

- Capaproof PUA P is a membrane with high surface hardness, stretchability and resistance against wear and tear that once applied offers great stability, durability and perfect waterproofing and watertightness for walkable roof surfaces and surfaces subject to vehicle traffic.
- The waterproofing system has EOTA certification based on EAD guide 030350-00-0402 for use in ETE roof waterproofing in force, with a useful life of 25 years W3, for a thickness of 1.4 mm, even on a zero slope roof.
- The waterproofing system is EOTA certified according to the European guideline ETAG 033 for use in the waterproofing of ETE bridge decks in force, for a minimum thickness of 2.3 mm.
- The polyurea membrane CAPAPROOF PUA P is suitable for application in situations of contact with drinking water, according to WRAS approval and is assessed under RD 140/2003.
- The membrane is assessed under ISO/DTS 11665-13, for radon gas diffusion (according to CTE DB HS6).
- The application and formation of the solid membrane is carried out by our dosing equipment.
- The versatility of the CAPAPROOF PUA P membrane and its drying time of between 3 and 5 seconds, gives it the possibility of adapting to any surface, making it the ideal product for application in irregular areas with shapes of any nature, whether curved or squared.
- With the application of CAPAPROOF PUA P, savings are made on joints and any type of union as the finish is uniform and in one single piece, providing a surface with optimum maintenance, cleaning and disinfection parameters in the case of clean rooms or industrial flooring.
- Consumption is approximately 1.7 kg/m<sup>2</sup> (at 1.5 mm dry film thickness). This may vary depending on the type of application, weather conditions or the nature of the substrates.
- The properties of the CAPAPROOF PUA P system allow it to adhere to any surface such as: concrete, ceramics, metals, polyurethane foam, OSB wood, asphalt/bituminous sheets. In any situation or material, the surface must be uniform, firm, clean and dry at the time of application of the products. It is recommended to be applied directly on reinforced concrete structural slabs (floor slabs).
- It is free of ozone-depleting substances, so it does not promote the greenhouse effect (NO HFCs, HCFCs, VOCs, etc.), VOC=0. CAPAPROOF PUA P is 100% recyclable by environmentally friendly mechanical means. No gas collection is required in its destruction or recycling, it does not emit any substances into the environment once installed.
- System complies with the Technical Building Code (CTE) according to the basic document DB SUA 1, Class 3 ENV 12633:2003; possibility of forming anti-slip finishes by adding solid particles.
- The CAPAPROOF PUA P system must be applied in conditions where there is no moisture in the substrate or water coming from the substrate or subfloor, either at the time of application or afterwards (water table pressure). In the case of existing dampness in the substrate at the time of application, consult the technical data sheets of our primers where the moisture resistance ranges are specified.
- CAPAPROOF PUA P is an aromatic membrane and, although it is stable against solar radiation, it needs protection to maintain its physical-mechanical properties. It is for this reason that the system evaluated by the different European evaluations (ETE in force), has an aliphatic polyurethane resin, CAPAPROOF COAT 2k in cases where this protection does not exist with other physical elements. CAPAPROOF COAT 2k POOL or CAPAPROOF COAT 1k can also be applied.
- The CAPAPROOF PUA P membrane may be in contact with chemicals. Consult the chemical resistance table, to know the type of exposure, temperatures and type of chemical elements, through the technical department.
- Consult our technical department, the system Technical Guides or the Application Methodologies, the characteristics of the proposed system according to the use, situation or type of application.

# Capa PROOF PUA P

## 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 has to be sufficiently compressive to support the adhesion force 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.

The substrates on which the Capaproof PUA P pure polyurea system can be applied are generally metallic, but it can also be applied on concrete substrates that may require elastic waterproofing due to their structural movement.

Below, we define the application on some of the most common surfaces, although if you have different needs, please contact our technical department.

### Concrete surface

- The concrete must be fully cured (the concrete curing process takes 28 days), or in any case, it is necessary to check the maximum degree of permissibility of substrate moisture depending on the primer to be used.
- In the case of concrete, it shall have a surface with good flatness, eliminating slurry or release agents, without excessive irregularities. Therefore, the previous action of sanding, polishing, milling or shot blasting will be assessed according to the state of the surface (to achieve a preparation of the support according to the -CSP- index (according to ICRI Guide 03732) of values between 4 to 6, depending on the use for which the element is intended).
- Existing cracks or areas with missing material must be repaired by spreading and filling with our epoxy resin CAPAPROOF PRIMER EP.
- In existing joints: remove old material, clean and fill with CAPAPROOF MASTIC PU. Supplement joints with CAPAPROOF BAND if necessary.
- Afterwards, the entire surface must be cleaned and removed of contaminants such as dust or particles from these previous processes.
- Apply the primer according to the type of substrate under the conditions and within the parameters indicated in the data sheets of these products.
- Homogeneous application of CAPAPROOF PUA P membrane in several coats, in order to apply the desired final thickness over the entire surface.
- Application by short pile roller, electric equipment of the CAPAPROOF COAT aliphatic resin layer in the desired thickness and amount according to use.

### Notes:

- In all cases, please consult the waiting times, drying times, solution in specific points of the construction, the application conditions of all the products through the technical data sheets of each product or consult our technical department.
- For other types of substrates, climatic conditions or the substrate to be applied, please consult the technical data sheets of these products, or our technical department.

# Capa PROOF PUA P

## APPLICATION REQUIREMENTS (PROJECTION EQUIPMENT)

For formation, it is necessary to mix the two initial liquid components, isocyanates and amines/polyols, by means of the spraying equipment (proper maintenance and cleaning of the spraying equipment is recommended).

The most general parameters of this equipment shall be the following:

- Isocyanate heater temperature: 70-75°C
- Amine heater temperature: 70-75°C
- Hose temperature:  $\pm 70^{\circ}\text{C}$
- Operating pressure: 2,500-3,000 psi
- Recommended mixing chamber: use mechanical purge chamber.

These temperature and pressure parameters must be assessed, ratified or slightly varied by the application agent, depending on the conditions of each climatic zone, climatic situation or according to the specifications of the spraying equipment.

## REPAIR AND OVERLAPPING PROCEDURE

In cases where it is necessary to repair the membrane due to accidental causes, 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, do not use water, and if water is used, assess the humidity of the support; possibility of applying ketone-based solvents for this type of surface cleaning.
- Application of a topcoat ( $\pm 100\text{-}150\text{ g/m}^2$ ) 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 PUA P, (also compatible with manual membranes): CAPAPROOF PU with addition of CAPAPROOFPLUS.
- Application of the aliphatic UV protection resin CAPAPROOF COAT 2K/2K POOL/1K.

### Work overlap

In cases where the recoating time (24-48 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 support; possibility of applying ketone-based solvents for this type of surface cleaning.
- Application of a topcoat ( $\pm 100\text{-}150\text{ g/m}^2$ ) 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 PUA P, (also compatible with manual membranes): CAPAPROOF PU with addition of CAPAPROOF PLUS).
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## SAFETY AND HYGIENE

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.

- Respiratory protection: When handling in aerosol form, an approved air-purifying respirator must be worn.
- 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: Wear safety goggles to avoid splashing and exposure to spray mist.
- Waste: Waste generation shall be avoided or minimised. Incinerate under controlled conditions in accordance with local and national laws and regulations.

In any case, please refer to the existing product safety data sheets, which are publicly available.

## ADDITIONS

In the application of this system/product, the following products can be applied as complements to its use. In this way, they are protected and their physical-mechanical characteristics are improved depending on their exposure, type and conditions of the substrate, according to the desired finish or external conditioning factors. Check in each case its technical data sheet.

- CAPAPROOF PRIMER EP: epoxy resin mortar with incorporated loads for filling and plugging of existing cracks in the surfaces of concrete or ceramics, 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 COAT 2K: two-component, coloured, aliphatic polyurethane resin for UV protection in situations of roofs or pavements without additional protection, for pedestrian or vehicular use.
- CAPAPROOF COAT 2K POOL: two-component coloured aliphatic polyurethane resin for protection against UV rays and chlorinated agents for waterproofing swimming pools, ponds and aquariums.
- CAPAPROOF COAT 1K: single-component aliphatic resin for UV protection on roofs, terraces, structural slabs or floors without additional protection, for non-walkable use or maintenance
- CAPAPROOF PLASTIC: plastic particles (different weights) which, once mixed with CAPAPROOF COAT 2K/2K POOL/1K, form a rough surface, in accordance with CTE DB SUA1 (Slipperiness of floors), up to a CLASS 3 classification (Rd>45) ENV 12633:2003, depending on their dosage.
- CAPAPROOF MESH: non-woven / woven mesh for pre-laying on excessively uneven substrates or on areas of soil or natural 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 support. Suitable for use in joints and overlaps between metallic materials.
- CAPAPROOF MASTIC PU: polyurethane joint filler (use in conjunction with CAPAPROOF BAND where necessary).

# Capa PROOF PUA P

## COMPONENTS DATA

PROPERTIES	COMPONENT A	COMPONENT B*
Specific Weight ISO 1675	1,11 ± 0,05 g/cm <sup>3</sup>	1,10 ± 0,05 g/cm <sup>3</sup>
Viscosity at 23°C (12 rpm) ISO 2555	850 ± 50 cps	1.100 ± 250 cps
Mixing ratio - by weight	100	102
Mixing ratio - by volume	100	100

\*Data for component B pigmented in grey.  
Results carried out in the laboratory at 23°C and 50% RH, under controllable conditions.

## OTHER TESTS AND TECHNICAL DATA

PROPERTIES	RESULT**
- RADON diffusion coefficient ISO/DTS	4*10-12 m2/seg
- Tear resistance ISO 34-1:2011	48 kN/m (±3)
- Non-migration to drinking water BS-6920 and WRAS approval /RD 140-2003	SUITABLE (review original document)
- Overall migration (20%/10% ethanol simulant) EN 1186-1:2002/EN 1186-3:2002-	SUITABLE (review original document)
- Depth of water penetration EN1186-1:2002/EN 1186-3:2002	10 bar/0 mm
- Max. tensile strength ISO 37 at 7 days internal test	28 MPa
- Max. elongation ISO 37 to 7 days internal test	345%
- Module 100% ISO 37 at 7 days internal test	11 MPa
- Application temperature range (substrate and ambient)	3°C - 40°C
- Maximum relative humidity of application	85%
- Pedestrian / vehicular trafficability	±3 hours / ±12 hours

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

## TECHNICAL DATA SYSTEM (ETE IN FORCE)

PROPERTIES	RESULT	PROPERTIES	RESULT
Density ISO 1675	1.11 ± 0.05 g/cm <sup>3</sup>	Slope constructive element	S1- S4, applicable on zero slope Broof Classification
Initial drying time	±5 seconds	External fire performance EN13501-5:2005 Conforms to CTE DB-SI2	(t1)+(t2)+(t3)+(t4)
Repaint range	10 seconds - 48 hours	Fire performance	Euroclass E
Service temperature range	-20 °C - 90 °C	Fatigue movement resistance EOTA TR-008)	suitable in 1,000 cycles
Pedestrian/vehicular trafficability	±3 hours / ±12 hours	VOC (Volatile Organic Compounds)	0
Elongation at break ISO 527-3	>350%	Solids content ISO 124:2014	100%
Tensile strength ISO 527-3	>20 MPa at 10 days	Anti-rooting certificate EN 13948:2008	YES
Shore hardness A/D DIN 53.505	>93 / >50	Adhesion to the substrate (concrete)	> 2 MPa
Useful life of the system	W3: 25 years at 1.4 mm thickness	General chemical products	Resistant to various products and chemicals (consult technical department)
Climate zone	S (severe)	Temperature range of use (service)	Behaves constantly -40 °C -+140 °C
Resistant to water vapour diffusion EN 1931	μ=2,279		
Water vapour transmission (EN ISO 7783)	14 g/ (m <sup>2</sup> /day)		
Temperatures/Usage load	P4:TH4, for all substrates in W2 P4:TH4, for concrete/steel/OSB in W3		

\*\*Results obtained in the laboratory at 23°C and 50% RH, under controllable 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.