

CIKOproof PUR-800



Liquid applied elastomeric Polyurethane waterproofing membrane

Description

CIKOproof PUR-800 is a liquid-applied, highly permanent elastic, cold applied and cold curing, one component polyurethane membrane used for long-lasting waterproofing.

CIKOproof PUR-800 is based on pure elastomeric hydrophobic polyurethane resins, which result in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

CIKOproof PUR 800 cures by reaction with ground and air moisture.

Properties

- Single component ready and easy to use system.
- Forms seamless membrane without joints.
- Resistant to water and frost.
- Excellent crack-bridging properties. (2mm at -10°C)
- Provides excellent thermal, weather and UV resistance
- Provide high sun reflectivity (contributing to thermoinsulation)
- Maintains its mechanical properties over a temperature span of -40°C to +90°C.
- Provides excellent adhesion to any type of surface
- Even if the membrane gets mechanically damaged, it can be easily repaired locally within minutes.
- The waterproofed surface can be used for domestic and public pedestrian and vehicular traffic.
- Waterproofs old bitumen, asphalt felts by covering them, without removing them prior to application.
- No need to use of torch flames during application.
- Over 15 years of positive feedback worldwide.

Application area

CIKOproof PUR-800 is a high quality waterproof membrane coating for use in:

- Waterproofing of Roofs
- Waterproofing of Balconies, Terraces and Veranda
- Waterproofing of Wet Areas (under-tile) in Bathrooms, Kitchens, Balconies, Auxiliary Rooms, etc
- Waterproofing of Pedestrian and Vehicular traffic Decks
- Waterproofing of Green Roofs, Flowerbeds, Planter Boxes
- Waterproofing of old Bitumen felts, Asphalt felts, EPDM and PVC membranes and old Acrylic coatings.
- Protection of Polyurethane Foam Insulation
- Waterproofing and protection of Concrete constructions like Bridge-Decks, Tunnels, Stadium Stands, Car Parks, etc.

Physical properties

Form	Liquid
Colour	White and light Grey
Density (@ 20°C)	1.39-1.41 Kg/L
Solids Content	≥85 %
Tensile Strength ASTM D412/ DIN52455	≥20 MPa
Elongation @7 days ASTM D412/DIN52455	≥600%
Tear Resistance ASTM D1004 @ 7 days	≥35 N/mm
Water Vapour Permeability ISO9932:91	>25gr/m ² /day
Service temperature	-30 ⁰ C to +90 ⁰ C
Max temperature short time (20min shock)	200 °C
Rain Stability time @ 20 ⁰ C and 50% RH	4 hours
Light pedestrian traffic time 20 ⁰ C and 50% RH	12 hours
Full cure 20 ⁰ C and 50% RH	7 days
Shore A Hardness ASTM D2240	65-70
Pull off Bond Strength ASTM D7234 @ 7 days	≥2MPa
Resistance to mechanical damage by static and dynamic impression (EOTA TR-006/7)	High Resistance Class P3
Resistance to Water Pressure	No Leak (1m water column, 24hr) (DIN EN 1928)
Crack Bridging EOTATR 008	2mm
Resistance to root penetration	Resistant (UNE 53420)
Solar reflectance	0.87 (ASTM E903-96)
Solar Emittance	0.89 (ASTM E408-71)
UV accelerated aging in the presence of moisture	Passed (EOTA TR-010)
Resistance after water aging	Passed (EOTA TR-012)
Thermal resistance (80°C for 100 days)	Passed – No significant changes (EOTA TR-011)
Construction material Fire Class	B2 (DIN 4102-1)
Resistance to flying sparks and radiating heat	Passed (DIN 4102-7)

Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric changes
Chemical resistance: Good resistance against acidic and alkali solutions (5%), detergents, seawater and oils.	

Coverage

1.4 kg/m² @1mm WFT applied in two coats.

This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption. Consult CIKO technical service department for total thickness recommendations.

Application instructions

Surface preparation

Careful surface preparation is essential for optimum finish and durability.

The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane.

Maximum moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothed. Any loose surface pieces and grinding dust need to be thoroughly removed

Mixing

CIKoproof PUR-800 is a single component system and requires slight stirring (2-3min) with a slow speed drill-paddle assembly.

Priming

Usually priming is not required, unless CIKoproof PUR-800 is to be applied over bare concrete, on highly porous substrates.

For porous surface CIKoprimer PU shall be used for priming the substrate.

Application of primer should be carried out as per the respective technical data sheet.

Application method

Waterproofing membrane

Stir well with electric drill mixer before using, for at least 2-3 minutes. Apply the CIKoproof PUR-800 onto the surface by roller or brush, until all surfaces are covered. After 12-18 hours, apply another layer of the CIKoproof PUR-800. For demanding applications, apply a third layer.

Reinforce always with fabric at problem areas, like wall-floor connections, 90° angles, chimneys, pipes, waterspouts (siphon), etc.

Finishing

If a colour stable and chalking-free surface is desired, apply one or two layers of CIKOcoat UV333 on top of the membrane.

The application of CIKOcoat UV333 Top-Coat, is especially required, if a dark final color, is desired. (e.g. red, grey, green). If a heavy duty, abrasion resistant surface is desired (e.g. Public Pedestrian Deck, Car Parking, etc), apply two layers of CIKOcoat UV333.

Packaging

CIKoproof PUR-800 is available in 25 kg pails.

Shelf life

CIKoproof PUR-800 has a shelf life of 12 months in unopened pails and if stored in accordance with CIKO instructions.

Storage

CIKoproof PUR-800 should be stored under enclosed shaded area at temperatures between 5 - 30°C.

Precautions

- Do Not Wash Surface with water before application
- Do not apply over 0.6mm (DFT) per layer.
- Not to use over standing water.
- High Humidity might affect the final finish
- Application temperature shall be between 5 and 35 °C
- CIKoproof PUR-800 is slippery when wet.

Health & safety

CIKoproof PUR-800 should not come in contact with eyes or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Applicator should wear appropriate clothes, gloves and goggles. Use of barrier cream is recommended to provide additional skin protection. If comes in contact with eyes, flush with plenty of fresh water and seek medical advice.

Refer Material Safety Data Sheet for further details.

Technical Support

For further technical support, do not hesitate to contact CIKO team at any time as CIKO offers on and off site services to end users, specifier and contractors.

More from CIKO Middle East

A wide range of construction chemical products are manufactured by CIKO Middle East which includes:

- Concrete admixtures and additives
- Waterproofing and damp proof coatings
- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
- Adhesives and bonding agent
- Protective coating
- Joint Sealants and Moulding compounds
- Ancillaries