

CIKOproof PPUA



Two Component High Quality Pure Polyurea waterproof and protective coating

Description

CIKOproof PPUA is two-components high quality and fast curing polyurea. The product is 100% solids cured to provide a superior membrane exhibiting a high tensile strength, extended elongation and high chemical resistance.

This system is based on amine - terminated polyether resins, amine chain extenders and prepolymers. It provides an extremely flexible, tough, resilient monolithic membrane with good water resistance and chemical resistance.

Properties & Advantages

- Eco Friendly.
- Fast curing
- Full-service use after 72 hrs @ 20°C
- High tensile strength and elongation.
- Excellent bond strength
- Excellent resistance to cracks
- Excellent chemical resistance to solvents, oil and acid.

Application Area & Uses

CIKOproof PPUA provide a waterproof and protective coating for concrete in a wide range of environmental conditions. It can be used in areas where chemical and oil resistance are required.

Typical applications include but not limited to:

- Water & Sewage tanks
- Sewage water treatment facilities
- Decks & stadium Stands
- Service roofs
- Tunnels
- Hot water storage and chemical tanks
- Multipurpose protection coating on steel and concrete.
- Waterproof coating on concrete and wood surfaces.

Coverage

CIKOproof PPUA will provide a theoretical coverage as following: 1.5 litre @ 1.5 mm thickness.

- Recommended Coating Thickness: 2mm

Note: Coverage rates given are theoretical. Due to wastage and the variety or/and nature of substrates, practical coverage figures may be reduced, this will vary with site and application conditions.

Physical properties

Appearance	Liquid
Colours	Black, Grey. Optional Green, Red, Blue, Yellow
Mix Ratio by Volume	1.0 : 1.0
Solids Volume	100%
Tack Free Time* (Temp. Dependent)	4 sec.
Recoat Time	<24 hours
Specific Gravity	Resin: 1.02 (Varies with colour)
	Activator: 1.11
	Mixed: 1.06 (Varies with colour)
Tensile Strength @ 23°C ASTM D412 test speed	> 20 MPa 500 mm/min.
Elongation @ Break @ 23°C ASTM D412 test speed	400% (+/-) 10% 500 mm/min.
Shore A Hardness ASTM D2240	95 @ 23°C

* Results from testing field-applied samples may vary dependent on factors such as equipment used, spray gun (amount of air entrainment), application temperatures, DFT and curing conditions etc.

Application Instructions

Surface preparation of Concrete substrates

Concrete should be allowed to cure minimum 28 days and to have a moisture content below 8%.

The concrete surface should be free from dust and loose particles or weak thin layers. All contamination such as oil, grease and extraneous spillages must be cleaned using the suitable cleaning agent. Concrete shall be diamond disk grinded, grit/shot blasted or treated with equivalent and suitable mechanical means to achieve a concrete surface profile between CSP 3 and CSP 5 as per ICRI Technical Guideline.

All cracks, deteriorated areas, joints shall be well treated and addressed using the appropriate epoxy-based repair and injection materials from CIKO wide range of products prior to the application of the primer.

Surface preparation of Metal

The steel shall be grit or sand blasted to achieve a surface free of all visible oil, grease, dirt, dust, mill

scale, rust and paint or coatings to meet the requirements of SA 2^{1/2} according to Swedish standard. Clean the surface well post treatment.

Application method

Spray Equipment

Spraying machine must be maintained all the time of spraying at 65°C- 75°C with a pressure of 2,500 psi and capable of providing a mixing ratio by volume of 1:1. Machines such as Graco's reactor or any other equivalent machine can be used.

The client/ main contractor must be satisfied that the applicator has suitable equipment and expertise and will follow the procedures detailed in this datasheet and in the CIKO Polyurea Method Statement.

Pack Size

CIKOproof PPUA is available in:

- Component A: 200 lit / Drum
- Component B: 200 lit / Drum

Shelf life

CIKOproof PPUA has a shelf life of 12 months if stored in accordance with CIKO recommended storage conditions (unopened containers).

Storage

CIKOproof PPUA should be stored under enclosed shaded area away from direct sunlight at temperatures between 5°C – 30°C.

Health & safety

CIKOproof PPUA should not come in contact with eyes or be swallowed. 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.

Precautions & Recommendations

- Not to use over standing water.
- Component B to be stirred for 1 hr before spraying and during spraying
- Mix well the toner in B Component. Some part of the toner may be settled down to bottom.
- The ambient temperature during application must be between 5 – 35°C.
- The substrate temperature is between 10 – 35°C and at least 3°C above dew point temperature.
- Atmospheric Relative humidity below 85%.
- Preheating A, B Component to 35~55°C.
- Recommend using 'Drum heating band' for preheating.

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
- Waterproof and Damp-proof coatings
- Surface Treatments
- Walls, Flooring and Toppings
- Grouts and anchors
- Tile Adhesives and Grouts
- Concrete Repair Materials
- Adhesives and Bonding Agents
- Protective Coatings & Sealers
- Joint Sealants and Moulding compounds
- Sports Flooring
- Plastering Mortars
- Paint

Legal Notice and Warranty

CIKO warrants this product to be free from manufacturing defects and to meet the technical properties stated in the current Technical Data Sheet, if used as directed within its shelf life. Satisfactory results depend not only on quality of product but also on many factors beyond our control. CIKO makes no other warranty or guarantee, express or implied, including warranties of merchantability or fitness for a particular purpose with respect to its product. The sole and exclusive remedy of purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of CIKO. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by purchaser. CIKO will not be responsible for any special incidental, consequential including lost profits or punitive damages of any kind. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on CIKO's present knowledge and experience. However, CIKO assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. CIKO reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified expert.

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All CIKO products are manufactured under a strict management system conforming to and in compliance with requirements of international standards of Quality, Environmental, occupational Health and Safety ISO 9001, ISO14001 and ISO45001.