

# Elastoclad® PU

## HIGH PERFORMANCE HIGH SOLID POLYURETHANE LIQUID APPLIED WATERPROOFING MEMBRANE

### DESCRIPTION

**Elastoclad PU** is a high performance, elastomeric, one component, moisture curing polyurethane coating formulated for use in many situations. **Elastoclad PU** provides a complete joint free waterproofing membrane, replacing the conventional 'hot melt' mastic asphalt and bituminous sheet membrane and felt systems. Conforms to ASTM C836 standard specification for high solids content, cold liquid-applied elastomeric waterproofing membrane for use with separate wearing course (Table 1).

### USES & ADVANTAGES

**Elastoclad PU** can be applied to the following surfaces:- Concrete, roofing felt, asbestos sheeting, tiles, galvanized and coated sheeting, slate, clay tiles, plywood decks, cellular glass insulation, MDF boards, sprayed in place PU foam, butyl and polypropylene sheet, lead, zinc, aluminium. Use in tunnels, underground structures, wet areas, roof gardens, domes, basements, terraces, balconies and patios.

#### Advantages include:-

- One component complete system easy to apply.
- Free from coal tar and bitumen.
- Joint free and seamless system.
- Total adhesion to the substrate. Any Mechanical damage is easily identified and repaired, unlike sheet membranes where water can travel beneath it.
- UV stable does not harden or become brittle.
- Can be applied to vertical surfaces such as roof flashings and walls without dripping or runs.
- Environment friendly. Low VOC.
- High tensile strength and elongation.
- Excellent crack bridging properties.
- Excellent UV resistance, weather ability and colour retention properties.
- High chemical resistance against diluted acids and alkali, oil, salts, bacteria and common fuels.
- No priming required.
- Full permanent immersion.
- Root resistant.
- Does not contain bitumen or solvent.

### PROPERTIES AND COMPLIANCE

Properties of the cured material applied in accordance with standard recommendations.

<b>Form:</b>	Viscous liquid
<b>Density:</b>	Approx. 1.4 kg/litre
<b>Tensile Strength:</b>	≥ 2 Mpa.
ASTM D412	
<b>Elongation:</b>	≥ 500%.
ASTM D412	
<b>Recovery 24 hrs:</b>	100%
<b>Shore A Hardness:</b>	50-60
ASTM D2240	
<b>Total Solids (%):</b>	85 ± 5
<b>Water Penetration Under Pressure</b>	
BSEN 12390 : Part 8 : 2000	
5 bar	No Penetration
<b>Water Vapour Transmission :</b>	≥ 100g/m <sup>2</sup> .day
ASTM E96	
<b>Absorption:</b>	< 0.25 %
ASTM D570	

<b>Adhesion in peel After immersion:</b>	12.9 N
ASTM C794	(Average peel force)
<b>Film Thickness on vertical Surface:</b>	>1.5 mm
ASTM C836	
<b>Bond Strength (Pull off):</b>	> 1 MPa
ASTM D4541	
<b>Low Temperature crack bridging:</b>	> 2 mm, no cracking
ASTM C1305	
<b>Service Strength:</b>	Achieved after 7 days
<b>Standard Colour:</b>	Black / Grey / White
<b>Chemical resistance:</b>	Dilute acids & alkalis, sea water.
<b>Re-coat interval:</b>	6 hrs.
<b>Full cure:</b>	7 days
<b>Application temperature:</b>	15 to 35°C
<b>Service temperature:</b>	-40 to 70°C
ASTM G26	
<b>Extensibility after heat ageing:</b>	≥ 10 mm no cracking
ASTM C1522	
<b>Flexibility at low temperature:</b>	- 35°C, no cracking
	Values achieved are subject up to 10% variation.

### SURFACE PREPARATION

Concrete surfaces to be treated must be dry, clean and free of laitance, dirt, films, paint, coatings, curing compounds, mould oils, or other foreign matter.

Structural defects such as cracks, faulty construction joints and honeycombing should be routed out to sound concrete and repaired in accordance with Cormix's specification. Horizontal surfaces should preferably have a rough wood float or broom finish.

The compressive strength of the concrete shall be at least 25 Mpa and 1.5 Mpa in tension at time of application.

### PRIMING

**Elastoclad PU** does not require priming. On highly porous surfaces, a priming coat is recommended to seal the pores and consolidate the surface. Use **Elasto-Coat Clear Sealer** as a primer. Apply primer coat @7 m<sup>2</sup>/litre.

### APPLICATION & COVERAGE RATES

Mix the contents of the pail thoroughly prior to application.

A slow speed drill and suitable paddle mixer should be used to avoid the formation of air bubbles.

**Elastoclad PU** is applied by brush, roller or airless spray, it cures after 24 hrs. to a tough, flexible membrane with exceptional elasticity and physical properties. Full physical properties are achieved after 7 days cure.

**Elastoclad PU** is applied between approx. 0.7 ltr/m<sup>2</sup> depending on the substrate and specification requirements. It will achieve a dry film thickness of approximately 1.2 mm. when applied in 2 coats at a total coverage of 1.4 ltr/m<sup>2</sup>

The minimum recommended coverage of **Elastoclad PU** is 1.4 ltr/m<sup>2</sup> to obtain dry film thickness of 1.2 mm.

The coating can be applied with a brush, roller or airless spray and shall be applied in a minimum of two coats.

The 1<sup>st</sup> coat shall be allowed to dry completely before the 2<sup>nd</sup> coat is applied. The 2<sup>nd</sup> coat shall be applied cross wise to the first coat. Recoat interval is 6 hours. It is recommended to reinforce all corners with scrim. The scrim shall be layed into the first coat whilst it is still wet and covered fully with the second coat.

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When applying **Elastoclad PU** on horizontal surface using stiff brush or notched squeeze (or) trowel ; measure area of approx. 12.86 m<sup>2</sup> and evenly spread the contents of 20 Ltr pail per 12.86 m<sup>2</sup> area to achieve wet film thickness of 1.4 mm (or) dry film thickness of 1.2 mm. Wet film thickness can be measured using a wet film thickness gauge.

#### LIMITATIONS

**Elastoclad PU** should not be applied over surfaces containing moisture, insulation that is saturated should be replaced. Existing waterproofing systems left in place must be sealed to avoid moisture movement.

To avoid potential bubbling of the system concrete containing moisture should be treated with 2 coats of **Floorgard Moisture Barrier** to a minimum d.f.t. of 300 microns. The concrete's moisture content should be < 4%.

All detailing must be attended prior to the application. **Elastoclad PU** is not manufactured to seal structural cracks. Reinforce when subject to light traffic.

Detailing includes sealing tapes at upstands, around pipes, penetrations and at joints and cracks. Contact Cormix for details.

Extreme ambient or surface heat temperatures will have a detrimental effect on **Elastoclad PU** during installation. Under high temperatures work should be performed early in the morning, late in the day or in shaded sections.

Application under direct sunlight during the heat of the day should be avoided. Protect from rainfall whilst curing.

#### CLEANING & DISPOSAL

Clean all the tools with water after use. Hardened materials can be removed mechanically. Allow the waste to cure, seal it into a suitable container and bury in landfill.

#### PACKAGING, STORAGE & SHELF LIFE

**Elastoclad PU** is packed in 20 ltr containers with net weight = 18 litres per pail. Store in dry, cool, ventilated conditions at temperatures between 15°C and 30°C in the original, unopened containers. If stored at high temperatures, the shelf life may be reduced.

The normal shelf life is 6 months in unopened containers stored correctly.

#### HEALTH & SAFETY

Handle and open container with care. Avoid inhalation or contact with skin, eyes and clothing. Wear suitable protective clothing, gloves and eye protection. **Skin contact** : Wash off with plenty of soap or mild detergent and water. **Eye contact** : Rinse immediately with plenty of water for at least 15 minutes while lifting the eyelids. **Ingestion** : If conscious, immediately rinse mouth thoroughly and give plenty of water. Do not induce vomiting.

#### TECHNICAL SERVICE

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

#### QUALITY ASSURANCE

ISO 9001: 2015 verified by TUV Nord.



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Cormix International Limited 89 Romklao Rd, Sansab, Minburi, Bangkok 10150 09 1012-CPD-0102 EN 1504-2 Protection and repair of concrete structures : Surface protection systems for concrete coating (PI, MC,IR)	Permeability to CO <sub>2</sub> :	SD > 50 m
	Permeability to water vapour:	SD < 5 m
	Capillary absorption and permeability to water:	0,1 kg/m <sup>2</sup> .h <sup>0.5</sup>
	Pull-off test:	≥ 0.8 N/mm <sup>2</sup>
	Dangerous substances:	Comply with 5.3
	Reaction to fire:	Class E

#### DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc. Cormix does not take responsibility nor need to defend others testing that does not achieve the published data. The user must test the products suitability for the intended application and purpose. Cormix reserves the right to change the properties of the product.

Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advise offered.

#### CONTACT DETAILS

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