

ShaliProtek® PuR L

2K Long Working Time Brushable Polyurea Based Protective Coating



Description

ShaliProtek®PuR L is a two component, brushable elastomeric polyurea based waterproofing & protective coating for long lasting protection of construction surfaces in diverse applications. It exhibits long term weather resistance, long application time and very high mechanical properties.

Product Information

Form, Colour, Mixing Ratio	White / Grey liquid, with mixing ratio of Component A : Component B = 63 : 37 (w/w) & 1:1 (v/v)
Handling & Storage	Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.
Packaging	Available in 12.5 kg unit pack (A+B).
Shelf Life	12 Months from the date of manufacture when maintain in protected storage in original unopened sealed condition at 5 - 38°C.
Handling Precautions	As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

Technical Characteristics at 27°C, 50% RH

Property	Method	Result
Consumption, kg / m ² **	IS 101	0.2 - 0.4 for protective coat 2 - 2.1 for waterproofing coat
Recommended DFT, microns, Minimum	---	100 - 200 for protective coat 1000 for waterproofing coat in 2 coats
Pot life, 100-gram sample, minutes	ASTM D 2471	55-60
Mixed Density, gm / cc	ASTM D 1475	1.46 ± 0.04
Tack free time, hours	IS 101	2-3
Dry to recoat, hours	IS 101	6 - 9
Trafficable time, hours	IS 101	18 - 24
Elongation at Break, %, 14 days	ASTM D 412	500 ± 100
Shore A hardness, 7 days	ASTM D 2240	80 ± 5
Tensile Strength, MPa, 14 days	ASTM D 412	6 ± 0.05
Tear Resistance, N / mm	ASTM D 4073	45 ±1
Water Absorption, %	ASTM D 471	< 0.2
Adhesion to concrete, MPa	ASTM D 4541	> 2.5 (concrete failure)
Solid content, % by volume	ASTM D 2697	74 ± 3
Service Temperature, °C	---	-35 to +80

** Depends upon surface condition

Field of Application

- Concrete roofs
- Metallic surfaces
- Bitumen membranes
- Over new or old waterproofing coatings
- On top of new PU foam insulation
- Water tanks (non-potable water)
- Non-exposed surfaces (e.g., under tiles)
- Foundation (exterior) walls

Advantages

- Excellent resistance to early rain
- Ultra-long service life period
- Excellent thermal stability and weather resistance
- Outstanding mechanical properties
- Remarkable adhesion on a wide variety of substrates
- Easy to apply by roller, brush or airless spray

Application Information

- ✓ **Substrate Temperature** +10°C Min / +45°C Max
- ✓ **Ambient Temperature** +10°C Min / +45°C Max
- ✓ **Substrate Moisture Content** < 3 %

Application Methodology

➤ Surface Preparation

- Remove all loose gravel, dirt, oil, grease, curing compound and foreign matter by jet of dry air and clean the surface mechanically or by grinding to make it smooth before application.
- Ensure that new concrete must be 28 days old.
- For metal surface, surface profile of SA 2 or SA 2½ is required.
- Repair all cracks of old concrete by cutting “V” groove and fill with PMC mortar prepared in the ratio of **ShaliCrete** : Cement : Sand (1 : 2 : 5).
- Provide 50 mm x 50 mm coving made out of PMC mortar as above.

➤ Material Preparation

- Stir drums of each component of **ShaliProtek® PuR L** thoroughly to a homogenous and uniform mix with a slow speed stirrer fitted with a suitable mixing paddle.
- Combine Component A and B in a suitably sized container.
- Mix properly for 3 - 5 minutes with a slow speed stirrer until a homogeneous colour is achieved. Keep the paddle below the surface to avoid entrapping air. **Do not mix by hand.**
- The temperature of the mixed base and hardener should preferably be more than 10°C, to obtain application viscosity.
- Apply the material as supplied, do not dilute under any circumstances with thinner.

➤ Application of Material

- Prime the surface immediately after cleaning, repairing and achievement of desired surface profile with **ShaliPrime® PUM** @ 4 - 5 m²/ L for concrete and **ShaliPrime® 2E** @ 8 - 11 m²/ L for metal surface.
- Allow it to dry.
- Apply 1st coat of **ShaliProtek® PuR L** by brush/roller /spray on the primed surface as per coverage mentioned in our data sheet.
- Allow it to dry for 8 - 12 hours depending on ambient condition.
- Apply second coat of **ShaliProtek® PuR L** after 12 hrs. following the same procedure, if higher DFT is required.
- For putting the tiles for aesthetics, protect the surface with a screed of 50 mm with **ShaliPlast® IW** and cure with water method for 7 days. Put the tiles using tile glue and adhesive.
- In case of horizontal exposed surface, apply a top coat of **ShaliProtek 2AC PU TC** for better aesthetics and UV stability.

Precautions

- Do not open the containers until ready to use.
- For work in exposed areas, do not proceed with application if precipitation is imminent.
- For a bonded polyurea coating application, concrete substrate must have achieved at least 75% of its design strength. Concrete relative humidity must be ≤75%.
- It should be noted that **ShaliProtek® PuR L** is an aromatic polyurea; therefore, as with all aromatics, over a period of time, colour change will occur if exposed to UV rays. This will not cause any negative effect on the physical properties of the product.

Value base of product data

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control and different test methods.

Health and Safety information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent **Material Safety Data Sheet**.

- **This product contains Isocyanate.** Avoid contact with eyes and skin.
- Wear suitable protective clothing such as overalls, goggles, dust mask and gloves. Ensure that there is adequate ventilation in the area where the product is being applied.
- Do not breathe in vapour or spray mist.
- This product is flammable.
- Keep away from sources of ignition.
- Take precautionary measures against static discharge.
- In case of fire, blanket flames with foam, carbon dioxide or dry chemicals.
- Eye protection during application is recommended.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- In case of skin contact, wash with soap and plenty of water. Get medical attention if irritation develops or persists.

Cleaning & Maintenance

Clean all tools immediately after use with STP Thinner only. Do not allow the material to harden.



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