

ShaliUrethane® LHM 2K 80

2K High Tensile, UV Resistant PU Water Proofing Liquid Membrane



STP Limited

Description

ShaliUrethane® LHM 2K 80 is a two component, high tensile, UV resistant, elastic, cold applied Polyurethane liquid membrane for water proofing and surface protection.

Approval/Standard

Conforms to ASTM C 836 and ASTM C 898.

Product Information

Form, Colour, Mixing Ratio	Grey liquid, with mixing ratio of Component A : Component B = 63 : 37 (w/w)
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); 7.9 kg = A & 4.6 kg = 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 30°C, 55% RH

Property	Method	Result
Composition	—	Polyurethane resin and Catalyst
Tack Free Time, hours	IS 101	2 - 3
Re-coat Time, hours	IS 101	6 - 8
Foot Traffic time, hours	IS 101	24 - 26
Mixed Density, gm / cc	ASTM D 1457	1.3 ± 0.05
Pot life, 100 grams of mix, minutes	ASTM D 2471	45 ± 5
Resistance to water Pressure, 1 M water column, 24 hrs.	In-house	No Leak
Theoretical Consumption, kg / m ² **	IS 101	2 - 3
Recommended DFT for waterproofing, μ		1000 - 1500
Volume Solid, %	ASTM D 2697	85 ± 2
Elongation at Break, %, 14 days	ASTM D 412	500 ± 50
Hardness, Shore A, 14 days	ASTM D 2240	75
Tensile Strength, MPa, 14 days	ASTM D 412	4 ± 0.05
Tear strength, N / mm, 14 days	ASTM D 624	45 ± 1
Water Absorption, %	ASTM D 471	< 0.5
Adhesion Pull off, MPa, 7 days <ul style="list-style-type: none">ConcreteMetal	ASTM D 4541	2.0 - 2.5 (Concrete failure) 4.2 - 5.0
Service Temperature, °C		-40 to +100

** Depends upon surface condition, porosity, mode of application and wastage.

Field of Application

- Bridge deck waterproofing
- Roofs, terraces, tunnels
- Podium
- Retaining Walls
- Swimming Pool

Advantages

- Easy to apply.
- High tensile.
- Excellent crack bridging properties Blister free coating. No appearance of holes in the surface during the curing of material.
- Prevents moisture penetration, provide complete sealing and anti-corrosion to the metal surface.
- Excellent bonding to all building substrates like concrete, plaster, metal, wood.
- Resistant to water, frost, mild acid and alkali.

Application Information

- **Substrate Temperature** +10°C Min / +40°C Max
- **Ambient Temperature** +10°C Min / +40°C Max
- **Substrate Moisture Content** < 3 %

Application Methodology

➤ Surface Preparation

- Remove all loose gravel, dirt, oil, grease and foreign matter by jet of dry air and clean the surface mechanically or by grinding to make it smooth before application.
- Repair all cracks by cutting “V” groove and fill with PMC mortar prepared in the ratio of **ShaliCrete** : Cement : Sand (1 : 2 : 5).
- Correct honeycomb / other minor surface defects with PMC mortar using **ShaliSBR Latex** as the bond coat.
- Ensure provision of slope in the gradient of 1 : 100 towards drain by laying PCC admixed with integral waterproofing compound, **ShaliPlast IW** @ 200 ml / bag of cement preferably with galvanized chicken wire mesh.
- Provide fillet 75 mm x 75 mm coving made out of PMC mortar as above, using **ShaliSBR Latex** as bond coat.
- Ensure that the moisture content in the prepared surface does not exceed 5% immediately before application of **ShaliUrethane® LHM 2K 80**.

➤ Material Preparation

- Skin formation may happen on the top of material during humid condition. In that event, cut skin from the periphery of the container and remove it.
- Stir **ShaliUrethane® LHM 2K 80** by a slow speed mixture fitted with a suitable mixing paddle to ensure a homogenous mix.
- After stirring, wait for the product to settle in order to let entrapped air escape.
- Use the entire material within 4 hours of opening the container.

➤ Waterproofing Application

- Prime the surface with
 - In case anti-root property is desired, tar extended anti-root primer-cum-sealer, **ShaliPrime WP SB** @ 400 gm / m² or
 - In other cases, **ShaliPrime PUM** @ 8 - 10 m² / L
- Allow the primer to touch dry condition.
- Apply 1st coat of **ShaliUrethane® LHM 2K 80** @ 980 gm / m² by brush / roller / airless spray while the primed surface is tacky. For faster and smoother application, apply with airless gun.
- Spread non-woven geo-textile of 40 / 50 GSM with overlaps of 50 mm in both directions when the surface is still tacky; this is optional, to be assessed as per site requirements to achieve higher mechanical properties.
- Allow 1st coat to dry for 10 - 12 hr.
- Apply 2nd coat of **ShaliUrethane® LHM 2K 80** @ 980 gm / m² by brush / roller / airless spray.
- Ensure final curing time of 36 hrs. before allowing / carrying out any further work.
- Extend waterproofing treatment up to 200 mm and terminate into groove on the parapet wall. Fill the groove with PMC mortar.
- In case of protection is desired over **ShaliUrethane® LHM 2K 80**, apply preferably **ShaliProtek PU HA**, high abrasion resistance liquid coating which can take foot traffic,
- Conduct ponding test after 7 days of curing at ambient temperature.

Precautions

- Do not open the containers until ready to use.
- For work in exposed areas, do not proceed with application if precipitation is imminent.
- It should be noted that **ShaliUrethane® LHM 2K 80** is an aromatic polyurethane; 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.
- 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.



Product Range

- Waterproofing & Insulation
- Road Surfacing
- Sealants & Adhesives
- Pipeline Coatings
- Protective/Anti-Corrosion Coatings
- Epoxy and Flooring
- Grouts and Admixtures (GARA)
- RestoFix - Repair/Rehabilitation
- Other Construction Chemicals



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