ShaliCryl® LM

Energy Saving Micro Fiber Reinforced Acrylic Liquid Membrane

STP Limited

Description

ShaliCryl® LM is a single component, energy saving, UV resistant, elastomeric, micro fiber reinforced, heavy duty monolithic / seamless waterproofing liquid membrane having high mechanical strength and resistance to fungal growth. It is a three-layer system with coats in 3 different colours ensuring proper build-up of the thickness. The top coat shall be white for a good cooling effect arising out of its high SRI.

Product Information

Colour, Form	White – Viscous Liquid
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 5L and 20 L container.
Shelf Life	12 Months from the date of manufacture when maintain in protected storage in original unopened sealed condition at 5 - 40°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. Keep away from children and animals. After opening the seal, always consume total material.

Technical Characteristics at 27°C, 55% RH

Property	Standard	Result
Density, gm / cc		1.30 ± 0.03
Viscosity, cps		5000 ± 2000
Solar Reflective Index (for white membrane)		105 ± 2
pH		8.00 – 10.00
Hardness (Shore A) @ 7 days	ASTM D 2240	>60
Solid Content, %		61 ± 2
Solar Reflectance (0 - 1 scale)		0.82
Emittance (0 - 1 scale)		0.92
Relative Absorption, 7 days		3.7 - 5.0
Water Absorption, %, 24 hours		0.2 - 0.4
Theoretical Coverage, m^2/ L for 500µ DFT *		1.3
Elongation at break, %, 14 days	ASTM D 2370	300± 30
Tensile Strength, N / mm^2, 14 days	ASTM D 2370	1.70 ± 0.03
Crack bridging, mm maximum, 10 cycles	ASTM C 836	1.0
Pull Off Adhesion, after 7 days, MPa	ASTM D 454	1.6
Water Vapor Transmission, gm / m^2 / 24 hrs.	ASTM E 96	21
UV Resistance, 1000 hrs.	ASTM G 154	No Hardening / Chalking
Resistance, Yeast and Mold	ASTM D 3273-74	Satisfactory

*** Depending upon surface condition, porosity, wastage during application.**

Field of Application

- Flat / slopped roof with light foot traffic.
- Over brick-bat-coba.
- Being liquid, suitable for waterproofing of complicated geometrical structures like domes, arches, paraboloid and steeps rising on flashing.
- Very effective for crack repair in cementitious surfaces and waterproofing of vertical wall surfaces and over existing cementitious waterproofing treatments like brick-bat-coba, concrete screeds, acrylic coatings, etc.

Advantages

- Green product.
- Energy saving, heat insulating, UV resistant, user friendly, washable and easy to apply.
- Environmentally safe and non-polluting, Abrasion / dirt pickup resistant.
- Forms high mechanical strength, elastic & resilient coating enabling it to withstand structural movements.
- Higher tensile strength, tear resistance & bond strength with cementitious substrate.
- No additional protective coating is required for roof subjected to normal foot traffic.
- Can be coated on both sides of the roof top and ceiling to have better effect.
- Excellent wet adhesion strength with concrete and metal.

Application Information

- ✓ **Substrate Temperature** +10°C Min / +40°C Max
- ✓ **Ambient Temperature** +10°C Min / +40°C Max

Application Methodology

➢ Surface Preparation

- Ensure that surface is free from all loose gravel, dirt and foreign matter with high- pressure wash. Before application surface should be totally dry, free from moisture, oil, grease, mill scale or rust.
- Do not apply during rains.
- Prior to application, repair torn flashings, loose brick, faulty covings or parapet walls to provide even surface. Large blisters and surface breaks shall be slit and opened for the release of entrapped moisture then cemented with Shalimar Dam-It wherever necessary.
- In case of old terraces with brick-bat-coba / screeds, ensure that substrate is firm and sound. Repair damage / hollow portions, sharp edges with **ShaliFix® FRM 90** Surface cracks must be filled with **PlastiSeal**.
- Bitumen based waterproofing treatments must be completely removed by mechanical scarification or by any other effective mechanical method.

➢ Material Preparation

- Stir **ShaliCryl® LM** by a slow speed mixture (approx. 400 rpm) 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.

➢ Application of Material

- Prime the surface with **ShaliCryl LM** diluted by addition of clean water in the ratio 1:1 and apply @ 8 - 10 m^2 / L.
- Allow the primed surface to dry.
- Apply **ShaliCryl® LM** using brush, squeeze, roller.
- Sequence of the colour (White, Red, Blue or Grey) can be decided depending on the desired top coat colour. Ensure that the colour of the first and the third coat are the same, in case of only two colours are being used. This would ensure correct consumption of material.
- Ensure all corners / gaps / joints / protrusions / outlets are coated with two extra coats.

Precautions

- For Cooling effect of roof third coat should be white. STP recommends use of **ShaliCryl® LM HI** as top coat for better SRI.

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**.

- Avoid contact with skin / eyes and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapour.

- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

Cleaning & Maintenance

- Clean all tools immediately after use with STP Thinner only. Do not allow the material to harden. Hardened materials should be removed mechanically.

