

# ShaliUrethane<sup>®</sup> BTD

Water Based UV Resistant Elastomeric PU Liquid Membrane



STP Limited

## Description

**ShaliUrethane<sup>®</sup> BTD** is high performance, water based, cold applied, single component elastomeric in-situ liquid membrane for waterproofing usually produced in White / Terracotta / Green colour.

**ShaliUrethane<sup>®</sup> BTD** is UV resistant. However, for better UV resistance, we recommend use of White colour BTD, having SRI Index > 109, thus facilitating considerable saving in energy.

**ShaliUrethane<sup>®</sup> BTD** forms a seamless monolithic membrane and can be applied on moist surface.

It conforms to ASTM C 836 and ASTM D 6083.

Use Horizontal / Vertical grade of **ShaliUrethane<sup>®</sup> BTD** for horizontal / vertical application respectively.

## Characteristics – Physical

Color	White / Terracotta / Green	Touch Drying time #, minutes	20 - 30
		Full cure time #, days	7
		UV stability	Excellent
Solid content, %	> 80	VOC Content, gm / kg	Nil
Service temp, range, °C	- 20 to + 100	pH	Alkaline
Theoretical Coverage *, DFT, Kg / m <sup>2</sup>	1.85 2.20	Solar Reflective Index	N/A 109
		• Terracotta / Green • White	
Application Temperature, °C	> 5	Specific gravity @ 30 °C	1.5 ± 0.03
Viscosity @ 30 °C, cps	6500 ± 1500	Elastic Recovery @ 150% elongation, %	70 – 75

\* Depending upon surface condition

# Depends up on weather condition.

## Characteristics - Technical

Elongation, %	ASTM D 2370	400 ± 50
Tensile strength, MPa	ASTM D 2370	1.40 ± 0.2
Adhesion to primed concrete, Pull off strength, MPa	ASTM D 4541	0.40
Extension after heat aging, mm	ASTM C 836	6
Crack bridging at low temperature	ASTM C 836	No cracking
Water Absorption %	IS 13826 Part 3	< 5
Hardness Shore A	ASTM D 2240	> 50

## Application

- Roof / Terraces, including corrugated roof.
- Terrace garden.
- Podium.
- Planter boxes.

## Advantages

- White **ShaliUrethane<sup>®</sup> BTD** has excellent SRI of 109, thus facilitates energy saving and provides good cooling effect under the treated surface.

- Arising out excellent SRI of 109, white **ShaliUrethane® BTD** is recommended for all slope roofs and not trafficable roofs, which needs no protection.
- Can be applied on moist surface also.
- Excellent water vapour barrier.
- High Crack Bridging.
- Monolithic / seamless in-situ Membrane.
- Excellent adhesion to concrete.
- Excellent elongation and very good low temperature flexibility.

## 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).
- Provide 75 mm x 75 mm coving made out of PMC mortar as above, using ShaliSBR Latex as bond coat.
- Ensure gradient of 1 : 100 towards drain by laying PCC admixed with integral waterproofing compound, ShaliPlast LW+ @ 200 ml / bag of cement preferably with galvanised chicken wire mesh.
- Ensure that there is no standing water on the applicable surface.

### ➤ Material Preparation

- Stir **ShaliUrethane® BTD** 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.

### ➤ Waterproofing Application

- Slightly damp the surface. Avoid standing water / ponding.
- Prime the surface
  - In case anti-root property is desired, with tar extended anti-root primer-cum-sealer, ShaliPrime WP WB @ 200 gm / m<sup>2</sup> or
  - In other cases, with ShaliPrime BTD @ 400 gm / m<sup>2</sup>.
- Allow the primer to touch dry condition.
- Apply 1<sup>st</sup> coat of **ShaliUrethane® BTD** @ 1 Kg / m<sup>2</sup> 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 or Fibre Glass Tissue of 45 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 1<sup>st</sup> coat to dry for 10 – 12 hr.
- Apply 2<sup>nd</sup> coat of **ShaliUrethane® BTD** @ 1 kg / m<sup>2</sup> by brush / roller / airless spray for **final** DFT of 1500 micron in two coats.
- 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 vertical application, protect the applied liquid membrane
  - By sprinkling sand @ 200 gm / m<sup>2</sup> over the final coating when the surface is still tacky to facilitate plastering, and 25 mm plaster admixed with ShaliPlast LW + @ 200 ml / bag of cement
- In case of horizontal surface, if protection is desired, protect the applied BTD
  - Preferably with ShaliUrethane WB HA, high abrasion resistance liquid coating which can take foot traffic, or
  - Spread separation layer of 200 gsm geo-textile, ShaliGeoText 200, with overlap of 50 mm in both directions on fully cured waterproofed surface before laying protection screed, and then lay 50 mm plaster admixed with ShaliPlast LW + @ 200 ml / bag of cement.

- For Heavy duty area, apply third coat of ShaliUrethane® BTD @ 1 kg / m<sup>2</sup>.
- Conduct ponding test after 7 days of curing at ambient temperature.

#### ➤ Precautions

- **Mixing water is totally prohibited.**
- In case of any application difficulty or otherwise if so desired, seek assistance from STP's Technical Cell for heavy duty application and other technical inputs, if any.
- Do not allow any movement over waterproofed area unless ponding is done and waterproofed area is protected as above.

#### Health & Safety

- 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.

#### Packing

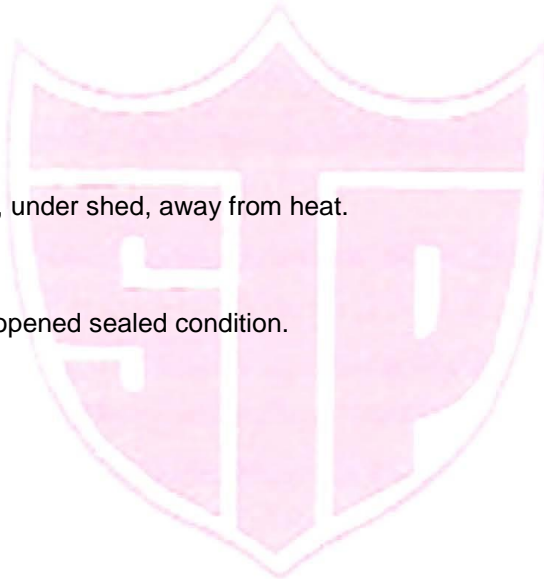
Available in 25 kg pack.

#### Storage

Store in a cool dry place, under shed, away from heat.

#### Shelf Life

12 months in original unopened sealed condition.



**STP Limited**  
*Enhancing Structures' Life*

#### 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



**Advisory Cell: +91 81302 81114**