

ShaliFloor® SL TC 4PU



4K Polyurethane Self-Leveling Top Coat

STP Limited

Description

ShaliFloor® SL TC 4PU is pre-weighed self-leveling polyurethane top coat floor coating system. It is four component systems with selected aggregates and polyurethane resins. **ShaliFloor® SL TC 4PU** provides a semi flexible, smooth, impervious and easy to clean surface. It also has excellent adhesion and provides good abrasion resistance on floors.

Product Information

Mixing Ratio	A: B: C: D = 16:11:69:4 (by weight)
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 26 kg unit pack comprising all the four components in a cartoon box.
Shelf Life	12 Months from the date of manufacture when maintain in protected storage in original unopened sealed condition at 5 - 38°C. Failure to comply with the recommended storage conditions may result in premature deterioration of the product.
Colour Variation	When applicable, products primarily meant for use as primers may have slight colour variations from batch to batch. Such products may fade and chalk when exposed to sunlight and weathering. Colour and gloss retention on topcoats / finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., and application quality.

Technical Characteristics @ 27°C, 55% RH

Property	Method	Result
Pot life , minutes	ASTM D 2471	50 - 60
Theoretical Consumption, kg / m ² / 2 mm**		3.4 - 3.6
Mixed Density, gm / cc	ASTM D 1475	1.80 ± 0.05
Curing time, hours		
• Foot Traffic		22 - 26
• Vehicle Traffic	ASTM C 722	48 - 52
• Full Cure, days		7
Compressive Strength, 7 days, N / mm ²	ASTM C 579	35 - 40
Flexural Strength, 7 days, N / mm ²	ASTM D 790	18 - 22
Shore D Hardness, 7 days	ASTM D 4060	60 - 80
Bond strength to concrete, N /mm ²	ASTM D 4541	1.5 - 2.0

** These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc.

Field of Application

- Area requiring hygienic monolithic floor like pharmaceutical Industries, operation theatres & corridors in hospitals and nursing homes, pathological laboratories, bottling plants, dairies & breweries, fermentation floors in tea garden and food processing units.
- Nuclear plants, computer and control panel rooms.
- Industries like electric and electronic Industries, picture tube manufacturing plants & textile mills.
- Automobile workshops and showrooms.

Advantages

- Cost effective, hygienic, easy to clean and economical.
- Good chemical resistance to wide range of chemicals.
- Quick and easy to apply.
- Seamless and durable.
- High strength.

Application Information

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

System

Primer @ 0.3 - 0.35 kg / m ²	ShaliPrime 2E SF
Epoxy Underlay @ 2 kg / m ² / mm	ShaliFloor SL UL 3ES / ShaliFloor 3ES
PU Top Coat @ 3.4 kg / m ² / mm	ShaliFloor SL TC 4PU
For 500 microns	
Mixing Ratio by weight (A:B:C:D)	Component C Combination
A:B:C:D = 19:13:63:5 (by weight)	50% Marble Stone Powder (300 mesh) 50% Extender 201 (Quartz powder - 200 mesh)
For 500 microns to 1 mm	
A:B:C:D = 19:12:64:5 (by weight)	50% Extender 201 (Quartz powder - 200 mesh)
For 2 mm	
A:B:C:D = 19:11:69:4 (by weight)	76% Extender 90 (Quartz Sand, 35 mesh pass) 24% Extender 201 (Quartz powder - 200 mesh)

Application Methodology

➤ Surface Preparation

- Prepare the surface by mechanical grinding or other suitable method.
- Remove dust, flakes, oil, grease or other loose foreign particles by sandblasting, iron brush or compressed air.
- Remove old painting using surface grinder.
- For best bond, concrete surface must be slightly textured.
- Allow it to dry before priming.

➤ Material Preparation

- A suitable power-driven mixer / stirrer is recommended for uniform mixing of **ShaliFloor® SL TC 4PU**.
- Stir Component A & B separately.
- Mix Component B (hardener) and Component D gradually into the Component A (base) under continuous stirring as per the stated mixing ratio. Continue the mixing for 3 - 4 minutes.
- Mix the aggregates (Component C) into the mixed resin portion uniformly under continuous mechanical agitation. Mix well for 3 - 5 minutes till the components become homogeneous.
- After stirring, wait for the product to settle in order to let entrapped air escape.

➤ Application of Material

- The concrete surface after proper and thorough surface preparation has to be primed with **ShaliPrime® 2E SF**. It is designed for better adhesion with the substrate and the flooring system. The primer should be mixed in the given proportions supplied.
- Once mixed, the primer should be applied immediately on to the prepared concrete surface. After priming, the surface has to be kept for drying - approximately 6 - 12 hrs.
- Depending on the ambient temperature before, proceed to lay **ShaliFloor® SL TC 4PU**.
- The material once mixed should be used within its specified pot life; the material is poured on to the primed surface and spread evenly to the required thickness with a 'V' notched steel trowel.
- After spreading, the wet epoxy should be firmly rolled with a spiked nylon roller to help release any entrapped air in the material and assist leveling and removing any tool marks.
- The rolling should be carried out using a 'back and forth' technique along the same path.
- An overlap of 50% with adjacent paths is recommended.

Precautions

- Do not apply **ShaliFloor® SL TC 4PU** on surfaces known to, or likely to, suffer from rising dampness, potential osmosis problems or having relative humidity greater than 75%.

- Do not apply **ShaliFloor® SL TC 4PU** to asphalt, weak or infirm concrete, unmodified sand / cement screeds, PVC tiles or sheets, or substrates known to move substantially e.g. steel walkways.
- Do not apply **ShaliFloor® SL TC 4PU** over treated expansion joints. Treat expansion joints with ShaliSeal PS.
- Colour and gloss retention on top coats / finish coats may vary depending on type of colour, exposure environment such as temperature, UV intensity etc., and application quality.

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**.

- Please observe the precautionary notices displayed on the container.
- Use under well ventilated conditions.
- Do not inhale spray mist.
- Avoid skin contact.
- Spillage on the skin should immediately be removed with suitable cleanser, soap and water.
- Eyes should be well flushed with water and medical attention sought immediately.
- 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.
- Service life of a floor will be considerably extended by good housekeeping. Regular cleaning may be carried out using a rotary scrubbing machine with a warm miscible cleaning agent at temperature upto 50°C.



STP Limited
Enhancing Structures' Life

Product Range

- Waterproofing and Insulation ■ Road Surfacing
- Sealants and Additives ■ Pipeline Coating
- Protective / Anti-Corrosive Coating ■ Epoxy Flooring
- Grouts / Admixtures ■ RestoFix- Repair / Rehabilitation
- Other Construction Chemicals



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