ShaliFloor® PU

4K Medium Duty Polyurethane Self Leveling Flooring System

STP Limited

Description

ShaliFloor® PU is a medium duty pre-packed four component system self leveling flooring with a smooth matt surface finish having 4 – 6 mm thickness. **ShaliFloor® PU** excellent chemical resistance and provides smooth, even and easy to clean monolithic, seamless surface.

Characteristics - Physical

Colour	Grey, Black, Yellow, Red, Green and Ivory	Abrasion resistance, mg / 1000 cycles)	< 100
Compressive strength, N/mm^2 (BS 6319:Part 2)	> 45	Theoretical Coverage *, kg / m^2 / 1 mm thickness	2
Density, kg / m^3	1820	Service temperature, ^OC	
Potlife, minute	15	4 mm	-15 to 60
		6 mm	-15 to 80

* **Depending upon surface condition.**

Characteristics - Technical

Property	Standard	Result
Tensile strength, N/mm^2	ASTM D-412	> 7
Flexural strength, N/mm^2	ASTM D-790	> 15
Hardness after 3 days	ASTM D-2240	70

Application

- Textile and film plants.
- Food and beverages production.
- Confectionary production.
- Warehousing and storage.
- Electronic component manufacturer & assembly.
- Pharmaceutical production.
- Chemical plants.

Advantages

- Fast application and rapid access.
- Hygienic and safe.
- Durable and long life.
- Excellent chemical resistance.
- Provide smooth, even and easy to clean joint less surface.

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.
- A damp proof membrane is essential where rising moisture may cause a delaminating of the **ShaliFloor® PU** from concrete.
- Concrete and other cementatious substrates must have minimum tensile (pull-off) strength of 1.5 N/mm^2 in order to ensure that failure of the substrate does not occur

before acceptable bond stress has been reached. Minimum compressive strength should be 25 N/mm^2 of the concrete substrate.

- In order to produce the good bond between the substrate and the floor topping the substrate shall be prepared by mechanical means using captive shot blasting machine or Mechanical scarifier .
- After substrate preparation by mechanical means the surface should be inspected to measure surface soundness. Any weak or suspect patches must be removed.
- Substrate must be free from dust & loose particles. Vacuum cleaning should be used to remove dust and loose particles.
- All traces of contaminants, including oils, fats, greases, paint residues, chemicals, algae and laitance, should be removed prior to starting surface preparation.
- Concrete and other cementitious substrate must be visibly dry before application of the floor topping.
- Surface defects exposed during surface preparation viz. shrinkage cracks, blow holes, minor honeycombing, minor damage to joint etc. shall be filled with **ShaliFloor® PU**.
- Every 4 to 5 m^2 along length and bredth and at the termination Grove cutting is essential Grove must be double the size of the thickness of the **ShaliFloor® PU**.

➢ Material Preparation

- Mix Component A (Resin), Component B (Hardener) & Component D (liquid pigment). Mix thoroughly with help of drill mixer till homogenous coloured mix is obtained.
- Gradually add the Component C (Powder) whilst mixing continues; mix until the aggregate is thoroughly dispersed and the mix become uniform, typically 4-5 minutes.

➢ Application of Material

- When the surface quality of a finished floor topping is important for hygiene or aesthetic reasons a prepared concrete substrate should have a scratch coat (2.0 kg / m^2) of **ShaliFloor® PU** as a primer. Priming or scratch coat prevents air rising from the substrate (which could result in surface defects) and stops resin being sucked into the substrate concrete so facilitating application and producing a more even surface finish.
- Application of **ShaliFloor® PU**: The floor is laid, at 4 / 6mm thickness depending upon specification, with a wet front maintained throughout. The mixed **ShaliFloor® PU** is spread to the required thickness with steel trowel. A spiked roller should be passed through the material to assist flow and release any air inclusions. The roller should be pushed not more than 10 cm into the previous mix.

Note : No Building Trades or traffic to be allowed on to the freshly laid **ShaliFloor® PU** for at least 24 hours at 15 ^{o}C to 20 ^{o}C, longer at lower temperatures. If the floor is to be handed to the client in a pristine (New & clean) condition then it must be protected from other trades. Application of the floor topping, **ShaliFloor® PU** should be allowed to cure 24 hours prior to expose to light traffic, 48 hours prior to expose to full traffic & 7 days for full chemical resistance. UV exposure though not affecting the performance of the **ShaliFloor® PU** will result in yellowing of the floor which is most apparent in light colours.

Health & Safety

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

Packing

Available in pre packed system of 26 kg consisting of

Component A	(Resin)	:	2.90 kg
Component B	(Hardener)	:	4.24 kg
Component C	(Powder)	:	18.21 kg
Component D	(Pigment)	:	0.65 kg

Storage

- Store in a cool dry place under shed away from heat above 5 ^{O}C and out of direct sunlight.
- Component A and Component B must be protected from frost and if frozen to be discarded.

Shelf Life

12 months in original unopened sealed condition.