

ShaliFloor® 2PU FC

Low VOC 2K Polyurethane Car Deck Floor Top Coating



STP Limited

Description

ShaliFloor® 2PU FC is a two component, Isocyanate cured polyurethane coating. It is a self-leveling product leaving a seamless surface. It is flexible, abrasion, impact, chemical and slip resistant. It is ideally used as top coat as part of a complete system in atmospheric environments. Suitable to apply on approved primers, on concrete substrates.

Product Information

Form, Colour, Mixing Ratio	Grey, two component Polyurethane Resin based solvent borne flooring with mixing ratio of Component A : Component B = 85 : 15 (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 5 kg unit pack, comprising 4.25 kg of Comp A & 0.75 kg of Comp B. Available in bulk 10 kg unit pack, comprising 8.5 kg of Comp A & 1.5 kg of Comp 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, 60% RH

Property	Method	Result
Recommended Dry Film Thickness / coat, (horizontal surface), μ		>300
Theoretical Consumption, ** kg / m ²		0.7 - 1.0
Volume Solid, %	ASTM D 2697	88 \pm 2
Touch dry, hours	IS 101	1 - 2
Overcoating time, hours	IS 101	7 - 12
Light traffic after use, hours		18 - 24
Full traffic after use, hours		24 - 48
Elongation after 7 days, %	ASTM D 638	35 - 45
Tensile Strength after 7 days, MPa	ASTM D 638	3.5 - 6
Shore D hardness after 7 days	ASTM D 2240	50 \pm 5
Density of mix, kg / L	ASTM D 1457	1.42 \pm 0.05
Flash Point, °C • Component A • Component B	ASTM D 93	30 - 38 >100
Pot Life, minutes, 100 grams of mix	ASTM D 2471	20 - 30
Adhesion pull-off, MPa, 7 days on concrete	ASTM D 4541	2 - 3 (concrete failure)
Water Absorption, %	ASTM C 413	0.04 - 0.08
Resistance to Chemical spillage, 7 days	ASTM D 543	Resistant***
Abrasion Resistance 1000 cycles, CS 17, mg loss	ASTM D 4060	110 \pm 10

** Depends upon surface profile, application wastage during application has to be taken into consideration.

The values are subjected to 5 - 10 % tolerance.

*** Resistant chart on specific chemicals can be available on request.

Field of Application

- Suitable for a wide range of floors with various levels of mechanical and chemical exposure.
- Specially designed as a part of the traffic deck system for heavy duty traffic such as, ramps, car parks, parking bays, pedestrian walkways, roof decks and industrial floors.
- Recommended for warehouses, factories and hangars.

Advantages

- Application friendly formulation with low VOC helps in easy application by brush or trowel.
- Durable, low maintenance costs.
- Proven against a wide range of industrial chemicals
- Provides excellent resistance to corrosion, impact, thermal shock and abrasion.

Application Information

- ✓ **Substrate Temperature** - +10°C Min / +40°C Max
- ✓ **Ambient Temperature** - +10°C Min / +40°C Max
- ✓ **Substrate Moisture Content** - < 2 %

Application Methodology

➤ Surface Preparation

- The long-term durability of any resin floor system is determined by the adhesive bond achieved between the flooring material and the substrate. It is most important therefore that substrates are correctly prepared prior to application.

New Concrete Floors

- These should normally have been placed for at least 28 days. Floors should be sound and free from contamination such as oil and grease, mortar and paint splashes or curing compound residues. Excessive laitance can be removed by the use of mechanical methods. Dust and other debris should then be removed by vacuum cleaning.

Old Concrete Floors

- A sound, clean substrate is essential to achieve maximum adhesion.
- Oil and grease penetration should be removed by the use of a proprietary chemical degreaser or by hot compressed air treatment.
- Abrasive blast cleans the surface to SSPC SP13 / NACE NO 6.

Priming

- All surfaces treated with **ShaliFloor® 2PU FC** should be primed with **ShaliPrime 2E SF**, a solvent free primer designed for maximum absorption and adhesion to the substrate. Add the entire contents of the hardener to the base and mix thoroughly.
- Once mixed, immediately apply the primer in a thin continuous film to the clean prepared surfaces. On porous floors, **ShaliPrime 2E SF** will be absorbed very quickly leaving characteristic light-coloured dry patches. It is recommended that a second priming coat is applied in these areas.
- The primer should be left to achieve a tack-free condition before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

➤ Material Preparation

- The entire contents of the hardener container should be poured into the base container and the two materials mixed thoroughly, for at least 3 minutes.
- The use of a heavy-duty slow speed, drill fitted with a Mixing Paddle is desirable. Mix these components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.
- Mix properly for 3 - 5 minutes until a homogeneous colour is achieved. Keep the paddle below the surface to avoid entrapping air. **Do not mix by hand.**

➤ Application of Material

- The first coat of **ShaliFloor® 2PU FC** should be applied using a good quality medium haired pile roller / brush, suitable for epoxy / PU application, or squeegee to achieve a continuous coating.
- A minimum film thickness of 300 microns should be applied. This can be increased where specifications demand.
- When the base coat has reached initial cure (12 hours @ 25°C or 7 hours at 35°C). The top coat can be applied by medium haired roller / brush, at minimum film thickness of 300 microns. Care should be taken to ensure that a continuous film is achieved.
- Expansion joints in the existing substrate must be retained and continued through the **ShaliFloor® 2PU FC**.

Precautions

- **ShaliFloor® 2PU FC** should not be applied on to surfaces known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75%.
- Certain chemicals may result in loss of gloss or colour change without affecting the protective performance.
- Coverage figures given are theoretical. Due to wastage factors and the variety and nature of substrates, practical coverage figures may be reduced, which will vary with site and application conditions.

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.
- Hardened materials have to be removed mechanically.
- Spillages should be absorbed with sand or sawdust and disposed of in accordance with local regulations.



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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