

ShaliSeal® PU PG 2K

2K Pouring Grade Polyurethane Sealant



STP Limited

Description

ShaliSeal® PU PG 2K is a two component chemically curing polyurethane resin based joint sealant. It is based on a liquid polyurethane polymer blend, which when mixed with the hardener, cures to form a tough, hard-wearing seal which has excellent resistance to fuel, oil and chemicals. The sealant has a movement accommodation factor (MAF) of $\pm 30\%$.

Approvals / Standards

BS 5212:1990 Part 1, IS:12118

Product Information

Colour (Mix)	Grey liquid
Mixing Ratio	Component A : Component B = 96 : 4 (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	Part A : 3.84 kg, Part B : 0.16 kg, Total : 4 kg, 1 Box = 4 kg x 4 sets
Shelf Life	12 Months from the date of manufacture when maintained in protected storage in original unopened sealed condition at 5 - 38°C. Excessive exposure to sunlight, humidity and UV will result in the deterioration of the quality of the product and reduce its shelf life.
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 27°C, 55% RH

Property	Method	Result
Appearance		Pigmented pourable resin
Application Temperature, °C		5 to 40
Consistency		Free flowing
Service Temperature, °C		-20 to +70
Solid Content, % by mass		96 \pm 2
Tack free time, hours	BS 5212-3	10 - 14
Curing time**		Will accept traffic in 24 hours, full cure in 7 days
Density, gm / cc	ASTM D 1457	1.45 \pm 0.05
Elongation, %	ASTM D 412	350 - 500
Shore A hardness, 7 days	ASTM D 2240	16 \pm 2
Movement accommodation factor	ASTM C 719	$\pm 30\%$
Application life, minutes	IS 12118	30 - 40

All values given are subject to 5 - 10% tolerance

** Curing at low temperature may take up to 10 days to fully cure.

Coverage Guide

To estimate the amount of **ShaliSeal® PU PG 2K** in kg / running meter to seal the joint can be very easily estimated by using the formula: $690 / (W \times D) = L^* = \text{Running meter} / \text{kg}$

L= Length of joint in running meter; W= Width of the joint in mm; D = Depth of the joint in mm

*Actual material consumption at site will vary depending on the wastage consideration of 5 - 20 %.

Field of Application

Sealing of movement and control joints in

- Concrete runways, aprons, pavements
- Fuel and chemical spillage areas
- Sealing of floor joints in car parking decks, warehouses
- Highways & bridges

Advantages

- Cold Applied. No heating is required.
- Good movement accommodation.
- Excellent workability. Easy to use.
- Self-levelling
- Fuel, oil and hydraulic fluid resistance.

Application Information

- ✓ **Substrate Temperature** +10°C Min / +40°C Max
- ✓ **Ambient Temperature** +10°C Min / +40°C Max
- ✓ **Substrate Moisture Content** < 0.06%

Application Methodology

> Joint Design

- Joints with cyclic movement should have a width to depth ratio of 1 : 1 to 1½ : 1 subject to a minimum 10 mm depth of sealant is recommended
- The joint depth shall not exceed the width.

> Joint Preparation

- The joint surface must be clean, dry and free from oil, loose particles, cement laitance and other contaminants which may affect the adhesion.
- A thorough wire brushing, grinding, sand blasting or solvent cleaning may be required to expose a clean and sound substrate.
- The compressible joint filler shall be cut back to expose a uniform joint depth.

> Priming

- Primer should be applied to a clean, dry surface prior to the installation of backer rod or bond breaking tape. **ShaliPrime S** is recommended to be applied on porous substrates.
- **ShaliPrime S** shall be applied at 7 - 9 m² / L by a brush in a thin coat application and shall be allowed to become tack free prior to the application of the sealant.
- The joint edges shall be re-primed if the sealant installation is not carried out within 3 to 4 hours of application of the primer.
- For obtaining a clean and neat finish, masking tape shall be applied on both the edges of the groove before applying the primer.

> Back up material

- Before positioning a bond breaker ensure that the expansion joint filler is tightly packed and no gaps or voids exist at the base of the slot to be sealed.
- A bond breaking backing rod shall be inserted into all movement joints to avoid a three-sided adhesion.
- For static and joints where the depth is not sufficient for the use of the backing rod, a bond breaking tape may be applied to prevent the three-side adhesion.

> Material Preparation

- **ShaliSeal® PU PG 2K** is supplied in pre-weighed two-part packs, which requires on site mixing. Pour the hardener (Part B) into the base (Part A) and mix thoroughly with a slow speed drill (300 - 400 rpm) fitted to a flat bladed paddle for 2 - 3 minutes till a uniform colour and consistency is achieved.
- **DO NOT PART MIX.** Since the base and the curing agent ratio controls the ultimate physical properties like adhesion, durability and strength, one complete kit has to be mixed at a time. Care should be taken to prevent unmixed material remaining on the sides of the container.

➤ Application of Material

- Pour the mixed material directly into the joint from the pail.
- Initially fill 2/3rd of the sealant, tool it properly allowing it to fill all the irregular areas inside the joint. The tooling will also allow the entrapped air to escape.
- Then pour the balance 1/3rd material and further tool it to get a smooth surface finish. The material should be used completely within the specified pot life.
- Any masking tape applied should be removed immediately after the sealant is installed.

ShaliSeal® PU PG 2K is not recommended for:

- Joints with slope gradient greater than 10%
- Damp and contaminated surfaces
- Asphalt pavements
- Joint >40 mm width
- Do not apply at temperatures below 5°C.
- Primer **ShaliPrime S** is flammable. Use only in well ventilated areas and do not smoke or expose to naked flames or other sources of ignition.

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 & Safety

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.
- Keep away from sources of ignition.
- 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.



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



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