

TECHSEAL PU2

TWO PART POLYURETHANE JOINT SEALANT

DESCRIPTION

TECHSEAL PU2 is a high performance two component polyurethane sealant. When cured, It forms a tough, flexible seal and bond capable of cyclic, expansion and compression movement. Joints or fabrications formed with this sealant can be expected to extend and compress a total of ($\pm 25\%$) of original joint dimensions.

Techseal PU 2 is virtually unaffected by normal weathering conditions such as rain, sunlight, snow, sleet, ultra-violet radiation, ozone, atmospheric contamination and pollution. Its excellent weatherability enables it to retain its original properties after years of exposure. Its physical properties remain relatively unchanged over a wide temperature range (-20°C to 70°C).

FEATURES & BENEFITS

- Fast curing & setting.
- Excellent adhesion & bonding strength.
- Excellent adhesion to most materials including metals, concrete, brick, wood.
- Paintable.
- Resistant to fungal attack. Also suitable for potable water.
- Excellent water and chemical resistance.
- High movement accommodation ($\pm 25\%$) ASTM C719
- One component so no mixing is required.

RECOMMENDED USES

- For sealing floor joints.
- Granite, sandstone and marble pointing GRC, Fiberglass & Specialty panel systems.
- Metal curtain wall facades.
- Potable water tanks.
- Sealing gaps and adhering facade and cladding panels to various building materials.
- Sealing construction and expansion joints.
- For sealing of concrete joints in airport runways.

TECHNICAL DATA

Typical properties after seven days cure at 25°C and 50% RH

Appearance	Flowable viscous paste
Type of cure	Forced chemical cure
Type	2 Component
Pot Life	1-2 Hrs.
Initial surface dry time in min.	40-50 min.
Mixing ratio by wt.	85:15
Shore A hardness	20-30 approx.
Tensile strength	7-10 kg/cm ²
Elongation at break	>500%
Chemical resistance	Resistance to dil. acids, alkalis, oils, fuels etc.
Application Temperature	10°C to 55°C
Service Temperature	-20°C to $+70^{\circ}\text{C}$

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DIRECTION FOR USE

SURFACE PREPARATION

1. Surface preparation is the most important steps before application of sealant to get best results and to avoid failure.
2. The joint surface must be dry, free from dust, coating, bituminous mastics, concrete curing agents, mould release agents, oils, greases and loose particles.
3. Clean the joint surface by wire brush and sanding with emery paper.
4. Remove dust by compressed air or paint brush.
5. Wipe out oil and grease by solvent soaked cloth (such as xylene, toluene or acetone.)

TOOLING & FURNISHING

It is desirable that a smooth surface is obtained. Tool the sealant by pressing the puffy knife or flat tool against the sealant surface, moving along the length of the joint. Tooling breaks air bubbles and exposes any air pockets present. Tooling compresses the sealant, thus promoting adhesion to the joint sides. After tooling the masking tape should be removed immediately. Soap solution can be used to smoothen the sealant surface.

BACK UP MATERIAL

Insert compressible polyethylene, polyurethane, neoprene, polyethylene butyl rod as back-up material to control depth of sealant in the joint and to provide support for tooling of the sealant.

PRIMING

Select a primer suitable to the substrate and apply two coats by brush on the sides of the joints surface at an interval of 30 minutes.

Primer RDL 942 : For porous substrate such as concrete, wood etc.

Primer RDL 947 : For non-porous substrate such as metals, glass etc.

BOND BREAKER

Fix bond breaker tape such as self adhesive polyethylene tape on back-up material to avoid adhesion of sealant to the third surface.

MASKING TAPE

Apply masking tape such as self adhesive polyethylene, cellophane or cloth tape on both edges of the joint. It is used to improve the neatness of the finished seal by protecting the face edges of the joint. It may be removed immediately after tooling of the sealant.

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MIXING

The base and hardener compounds supplied are packed in pre-weighed quantity as per the mixing ratio. After the application of primer, mix the material of individual container. Transfer entire quantity of accelerator to the base compound tin and mix it thoroughly to a uniform, homogenous black color. Mixing can be done manually with Spatula, palette knife or special flat stirrer attached to a low speed electric mixer less than 500 rp.m.

APPLICATION

Pouring Grade (Manual Application)

After mixing the two components, the mix is suitable for pouring directly from the container into the joints. This grade level itself to form a smooth and clean surface. It can also be applied with the help of an automatic sealant application machine.

COVERAGE

Sealant: To estimate the no. of running met work can be done by TECHSEAL PU2. Can be very easily estimated by using the following formula:-

$$L = 660 / (W \times D)$$

Where, L = Length of the joint in linear running meter

W = Width of the joint in mm. D = Depth of the joint in mm.

Primer: 1 lit. of primer is required per 15kgs of sealant.

CLEANING OF TOOLS & EQUIPMENTS

Tools and equipment can be easily cleaned with solvent such as xylene, toluene, methyl, ethyl, ketone and acetone.

STORAGE & SHELF LIFE

Store the material at cool and dry place (at 25^o C temp & 50% RH)
Shelf life is one year in unopened containers.

PACKING

Techseal PU 2: Base & Hardener is available in 4 Kg Pack and Primer: 1 ltr:

SPECIFICATION COMPLIES

- BS 5212 & BS 4254

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- EN 14187: 2003
- ASTM C 920
- PPM 400 Hardness Test

PRECAUTIONS

- Some people are sensitive to resins, hardeners, solvent and its vapors so it is advisable to use hand gloves and goggles.
- Avoid application below 10⁰ C temperatures.
- Avoid application on damp or moist substrates.
- Store in a cool & dry place.
- Ensure that two coats of primer are applied on the jointing surfaces V.