

Shieldseal PU25

Single-component, Moisture-curing, Polyurethane Sealant



MICSHIELD®

Description

Shieldseal PU25 is an elastomeric, single-component, non-sag, polyurethane sealant that cures with atmospheric moisture, and designed to provide an elastic and cohesive mass.

Uses

- Sealing and bonding between similar and dissimilar substrates in traditional masonry, civil and industrial applications, light and heavy prefabrications, interior decorating etc.
- Sealing of expansion and construction joints in concrete floors and walls.
- sealing between precast concrete panels.
- Adheres well on various substrates such as concrete, glass, wood, anodised aluminium, coated aluminium, tiles, and so on.

Characteristics / Advantages

- Elastomeric characteristics
- Non-sagging properties.
- Excellent mechanical properties.
- Excellent adhesion to dissimilar substrates.
- High movement accommodation capability.
- Durable and resistant to UV and weathering conditions.
- Paintable.

Shelf Life and Storage

Shieldseal PU25 has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

Packaging

Shieldseal PU25 is supplied in 600 ml sausages.

Typical Properties

Appearance / Color	Grey and white
Specific Gravity	1.52
Skin-over Time (23°C, 50% RH)	90 – 150 minutes
Curing (23°C, 50% RH)	2 – 3 mm /24 hours
Movement Accommodation Factor (ASTM C719)	± 25%
Shore A Hardness (ASTM D2240)	25 ± 5
Elongation at Break (ISO 8339)	400%
Tensile Strength (ISO 8339)	0.74 MPa
Modulus @ 100% Elongation (ISO 8339)	0.34 MPa
Service Temperature	- 40 to + 90 °C
Application Temperature	+ 5 to + 40 °C

Application Instructions

1. Surface Preparation

The joints must be clean, dry, and free from dust, surface contamination, and materials that may reduce bond or prevent adhesion. To remove dust, use oil-free compressed air. Surfaces should be degreased with solvent using a clean cloth.

For expansion joints with porous substrates, apply any suitable polyurethane primer prior to application.

2. Joint Design

Joints up to 20 mm width, the width to depth ratio is 1:1
Joints over 20 mm width, the width to depth ratio is 2:1

The maximum width for silicone sealant is 40 mm, and the minimum is 5 mm at least. .

Apply masking tape to areas adjacent to joints. Install backing (closed-cell or open-cell polyethylene foam backer rod), spacers, or joint filler to ensure the correct width-to-depth ratio.



3. Application

Remove the gun's end cap, attach the nozzle, insert **Shieldseal PU25** sausage into the caulking gun, and cut off the clip. Then cut the nozzle at an angle of 45° and apply the sealant using the gun. Tool immediately to spread the sealant against the surface to give it a smooth finish. Immediately tool **Shieldseal PU25** after application and before skin formation.

Tooling should be done in one continuous stroke to eliminate air bubbles or voids. Remove masking tape immediately after the tooling is completed.

4. Cleaning

Uncured sealant may be removed from tools, equipment, and non-porous surfaces with solvents. For porous substrates, allow the sealant to cure before removal by peeling or other mechanical means. Cured sealant can only be removed mechanically by abrasion.

Safety Instructions

Use in well-ventilated area. Direct contact of uncured sealant may irritate eyes and skin. Over exposure to vapor may irritate eyes, nose, and throat. Do not handle contact lenses with sealant on hands. In case of eye contact, flush eyes with water for 15 minutes. Obtain medical attention. In case of skin contact, remove from skin and flush with water.

Technical Support

Refer to technical information, method statement, or contact technical support team for any inquiry.

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Version 251021 SP-FB –PU25-002

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