

Shieldseal PU25 LM

Single-component, Moisture-curing, Polyurethane Sealant



MICSHIELD®

Description

Shieldseal PU25 LM 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 absorbent and non-absorbent substrates such as concrete, gypsum board, bricks, wood, steel, aluminum, PVC, 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 with water-based and two-component industrial paints.

Shelf Life and Storage

Shieldseal PU25 LM 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 LM is supplied in 600 ml sausages.

Typical Properties

Color	Grey, White, Black, Brown and Beige. Other colors are available upon request.
Specific Gravity	1.23
Skin-over Time (23°C, 50% RH)	120 – 240 minutes
Curing (23°C, 50% RH)	2 – 3 mm /24 hours
Movement Capability	25%
Shore A Hardness	25 ± 5
Recovery (100% extension for 24 hours)	>90%
Elongation at Break (DIN 53504)	880%
Tensile Strength (DIN 53504)	1.32 MPa
Modulus @ 100% Elongation (DIN 53504)	0.42 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 the sealant is 50 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 LM** 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. For vertical joints, start application from the bottom up to ensure the gaps are filled. Ensure that it makes complete contact with the entire surface. Immediately tool **Shieldseal PU25 LM** after application, before skin formation, to ensure proper contact and achieve a smooth finish.

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.

Limitations

- Do not apply the product if the ambient temperature is less than 5°C.
- Hot weather practices should be adopted during application and curing if the temperature is above 35°C. In hot conditions, store the material in a cool environment prior to application.
- Do not use **Shieldseal PU25 LM** for joints permanently immersed in water.
- Shieldseal PU25 LM** is not compatible with alkyd-based paints.

Technical Support

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

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