SPECIALITY ENGINEERING CHEMICALS

ENGINEERED SOLUTIONS

SPECseal PU25

LOW MODULUS ONE COMPONENT PU SEALANT

Low Modulus | UV Resistant | Adhesion

DESCRIPTION

SpECseal PU25 is a high quality PU sealant. It is a one-component, elastic sealant with strong adhesion to a variety of surfaces.

TYPICAL USES

- Submerged Conditions (ASTM C1247-14)
- Boundary wall for villas
- Concrete Expansion Joints
- Precast concrete facade cladding
- Brick facades
- Perimeter caulking around windows, doors, and aluminum frames
- Expansion and construction joints in water-retaining structures
- Curtain wall joints
- Parapet wall
- Non-trafficable (NT) and trafficable (T) areas
- Head of wall joint (civil joint) between the block and soffit

ADVANTAGES

- Excellent adhesion without the need for a primer on concrete, wood, masonry, bricks, aluminum, metal, and ceramics.
- High Elastic Recovery
- Low odor
- Resistant to weather conditions
- Easy to apply with a caulking gun
- Safe for use in contact with drinking water
- Paintable

STANDARD COMPLIANCE: ASTM C 920

TECHNICAL DATA

PROPERTIES	VALUES
Colours	Grey, white, beige Other colours subject to MOQ
Skin Formation @ 23°C and 50 % RH	2hrs
Cure Depth (24hrs) at 23°C and 50% RH	Approx. 3mm
Specific Gravity	1.50 ± 0.03
Shore A Hardness ASTM C661	40±5
Elastic Recovery (ISO 7389)	>75%

PROPERTIES	VALUES
Elongation at Break ASTM D412	400 ± 25%
Temperature Resistance	-30°C to +90°C
Movement Capability	25%
VOC Content US EPA Method 24	<12g/L
Climate Suitability	Usable in both horizontal and vertical applications in hot and tropical climates
Anti-Fungal ASTM D5590	None (Sterile)
Slump ASTM D2202	<1mm
Tensile strength ASTM D412	1.10 ± 0.20 N/mm²
Application Temperature	5°C - 50°C
Acoustic ((ASTM E90-09 (2016))	

APPLICATION INSTRUCTIONS

For applications above 40°C, ensure that the surface temperature does not exceed safe limits, as it may be significantly higher than the ambient temperature.

Application at high temperatures should be done under controlled conditions with relative humidity above 40% to ensure proper curing and performance.

PREPARATION

It is essential that the joint arises are clean and free from any deleterious matter which could prevent adequate bond to the substrate. The substrates must be clean, dry, free of dust and grease and other contaminations.

APPLICATION

1. Cut the tip of the sausage carefully and slip it into the caulking gun.
2. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
3. Place the nozzle into the caulking gun and screw tight.
4. Extrude the sealant with a single bead. Tool the sealant bead with a clean and dry tool before the sealant skins for a smooth finishing.

CLEAN UP

Wet sealants can be cleaned up with acetone or mineral spirits. Cured sealants can only be removed mechanically.

JOINT DESIGN

Joint dimension should be designed by taking into consideration the movement capability of the sealant and the anticipated joint movement.
Generally the joint width-to-depth ratio is 2:1 for joint width ≥12 mm, or 1:1 for joint width <10 mm .

COVERAGE

Width	Depth	Coverage (600 ml)*
2 mm	10 mm	27.3 meter
6 mm	10 mm	9.0 meter
10 mm	10 mm	5.4 meter
20 mm	10 mm	2.7 meter
25 mm	12 mm	1.8 meter

**The coverage figures shown above are approximate linear meter run based on 10% wastage assumption.*
Actual coverage may vary.

CALCULATION FORMULA: X / [(Y x Z) x 1.1] = Coverage

X = volume of sausage in ml,
Y = joint width in cm, ***Z*** = joint depth in cm,
1.1 = 10% wastage assumption,

Coverage = linear meter run in cm per sausage

LIMITATIONS

Not recommended for the following applications:

- Polyethylene, polypropylene, polytetrafluoroethylene (Teflon), neoprene, and bituminous surfaces.
- Overcoated with oil based paint - not compatible

PACKAGING

SpECseal PU25 is supplied in 600ml sausage.

STORAGE AND SHELF LIFE

SpECseal PU25 has a shelf life of 12 months when stored in original packaging at a maximum temperature of 25°C. If stored at high ambient temperatures or at high humidity the shelf life will be reduced by as much as 50 - 60%.

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SPECIALITY ENGINEERING CHEMICALS
PO Box 61347, Dubai, United Arab Emirates. Telephone: +971 4 883 6662, Fax: +971 4 883 7696
E-mail: info@spec.ae
www.spec.ae