VexSeal PU 50

Polyurethane sealant specifically designed for high durability required applications.

Description

VexSeal PU 50 is a High modulus single-component polyurethane sealant that also functions as a flexible adhesive. It's specifically formulated for sealing construction and expansion joints, as well as joints in pedestrian walkways. Additionally, it serves as an elastic adhesive suitable for most common building materials. Once cured, it forms a robust, long-lasting seal that accommodates cyclic movement of up to +100% expansion and -50% compression.

Uses

Suitable for use on:

- Sealing Construction and Expansion joints
- Pedestrian Walkways
- Airport Runways
- Precast and tilt-up panels
- Brickwork and blockwork
- Fibre cement sheeting
- Aluminum Window Frames
- GRC, fiberglass, and most specialty panel systems
- Natural stones like granite, sandstone, and marble
- plasterboard surfaces, including recessed paper-lined edges
- production areas where limited acid/solvent resistance is required
- As an adhesive for floor trims, skirting boards, and other common building materials such as concrete, timber, aluminium*, and brickwork

Technical Data

Property	Result
Appearance	White, Grey, or Black
Viscosity	Non-sag, smooth thixotropic past
Cure Method	Moisture curing
Coverage	Refer to table below
Application Temperature	5 to 40°C
VOC	2.4g/L
Temperature Resistance	-30 to 80°C
Skin Time	90 mins
Cure Rate	2.5-3mm/24 hours
Full Cure	7 days on porous substrates. Allow > 14 days in joints over 20mm wide in standard conditions
Specific Gravity	1.30 g/ml
Shore A Hardness	30-35 (DIN 53505) 35-45 (ASTM C661)
Tensile Strength	> 1.6 N/mm²
Elongation at Break	> 800%
Total Joint Movement	+100%/-50%
Maximum joint width	Up to 50mm

Application Notes

The following is a summary of critical applications points, for a detailed application description refer to the relevant product Method Statement.

Tools and Equipment

Vexseal PU 50 should be dispensed using a Caulking gun

Surface Preparation

Surfaces should be dry and clean from contamination and loose matter.

Priming

VexSeal PU 50 does not require the use of primer prior to application when being applied on concrete or mortar or bare aluminium.

As Construction Adhesive:
VexSeal PU 50 only needs to be applied on one side of the applicated surface. Apply the sealant in beads, then bond the surfaces together either immediately or within 15 minutes. If mechanical fasteners aren't used, clamping is required until the adhesive fully cures. Ensure sufficient sealant is applied to achieve proper adhesion, depending on surface texture. Wipe away any excess with a dry cloth or solvent before curing. If the adhesive is visible, smooth it with a spatula or putty knife for a clean finish.

As Construction Sealant:
VexSeal PU 50 is ideal for sealing vertical joints and floor joints such as saw cuts and expansion joint gaps. A thinner bead allows for greater joint movement than a thicker one, so maintaining the correct width-to-depth ratio is essential. To prevent three-sided adhesion, use a bond breaker. For proper sealant shape and performance, use open-cell polyurethane or closed-cell polyethylene foam as backing material.

Joints sized correctly can effectively accommodate movement between building materials. To maintain proper sealant geometry and ensure strong adhesion, always install a backing rod first.

- Apply primer after the backing rod is in place
- Ensure full adhesion to both joint faces
- Minimum joint depth: 5 mm
- Maximum joint width: 80 mm
- Tool the sealant to form a concave finish

Limitations of Use

Not recommended for:

- Use in chlorinated water environments (e.g., swimming pools, spas)
- Polyethylene (PE), polypropylene (PP), polycarbonate (PC), acrylic (PMMA), PTFE, soft plastics, neoprene, or bituminous surfaces
- Constant immersion in salt water
- Glazing applications
- Cement-based substrates less than 28 days old
- Application at temperatures below 5°C or above 40°C
- Exposure to water or alcohol before full cure
- Joints smaller than 5 mm or larger than 80 mm in width and depth

Note:

VexSeal PU 50 White may yellow if exposed to prolonged natural or artificial UV light. Due to variations in substrates and site conditions, users are advised to test the product to ensure suitability for their specific application.

Product Codes

Color	Size	
White	300ml	600ml
Grey	300ml	600ml
Black	300ml	600ml

Estimated Consumption

Joint Size (DxW)	5 x 5 mm	5 x 10 mm	10 x 20 mm	25 x 50 mm
300ml Cartridge	12m	6m	1.5m	0.24m
600ml sausage	24m	12m	3m	0.48m