

Flexseal PU440

One component, non sag, elastomeric polyurethane sealant with high tear and weather resistance



DESCRIPTION

Flexseal PU440 is a one component non sag polyurethane sealant that cures by reacting with air humidity to form a tough, high modulus and highly elastic sealant. Flexseal PU440 has a very wide service temperature range. Suitable for vertical and horizontal joints.

APPLICATIONS

- › General sealing of construction and expansion joints.
- › Basement walls.
- › Precast concrete elements.
- › For concrete, wood, marble, stone, aluminum, steel, ceramic, gypsum boards, etc.

ADVANTAGES

- › Very easy and economical to use.
- › One component.
- › Excellent aging resistance.
- › Paintable, consult DCP's Technical Department for more details.
- › High shore hardness characteristics.
- › Remains elastic at temperatures down to -30°C.
- › Good resistance to microorganisms and a variety of chemicals.
- › Good adhesion to most surfaces without need for priming.

STANDARDS

Flexseal PU440 complies with:

- › BS 5212:1990, Type N and F.
- › ISO 11600, Type F, Class 25 HM.
- › ASTM C920, Type S, Grade NS, Class 25, Use NT, T₁, A, M and I.
- › U.S. Federal specification TT-S-00230C, Type 2, Class A.
- › LEED® EQc 4.1 SCAQMD Rule 1168.
- › EN 15651-1:2012, F-EXT-INT-CC.

METHOD OF USE

SURFACE PREPARATION

All substrates should be clean, dry, free from dust, oil, grease and any contaminations that could effect the bonding.

If the substrates need to be cleaned, use methyl ethyl ketone (MEK), acetone or grease remover. Always be sure that the substrates are dry before the application.

TECHNICAL PROPERTIES:

Colour:	Available in various colours
Density:	1.40 ± 0.05 g/cm ³
Shore A hardness: ASTM C661	40 ± 5
Service temperature:	-30 up to 80°C
Application temperature:	5 up to 50°C
Adhesion in peel: ASTM C794	≥ 70 N
Tack free time: ASTM C679	Up to 3.30 hr @ 23°C & 50% RH
Curing rate:	≈ 2.5 - 3.5 mm/day
Elongation at break: ASTM D412	≥ 700% @ 7 days
Tensile strength at break: ASTM D412	≥ 1.9 MPa @ 7 days
Modulus @ 60%: ISO 8339	≥ 0.3 MPa @ 23°C > 0.6 MPa @ -20°C
Effects of accelerated test: ASTM C793	No cracking
Effects of heat aging: ASTM C1246	Pass @ 70°C
Movement accommodation: ASTM C719	±25%
VOC: ASTM D2369	≤ 75 g/ltr (comply with LEED)

PRIMING

- › Flexseal PU440 generally has strong adhesion to common clean, dry and sound substrates without primers. However, Flexprime PS100 primer can be used on porous substrates in order to achieve optimum bond strength.
- › For joints of porous substrates which will be continuously submerged in water, it is recommended to use Flexprime PS100.
- › Apply Flexseal PU440 within 10 - 30 minutes from the application of Flexprime PS100 at 23°C.

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APPLICATION

The recommended application temperature range is 5°C and 50°C.

For cold weather application, store the product in a heated area at 20°C for 24 hours prior to use. Install polyethylene joint backing rod to control the sealant depth.

Tooling and finishing should be carried out immediately after the application of the sealant. For optimum performance, the ratio of width to depth of the sealant should be 2:1. Minimum sealant depth should however be 5 mm.

LIMITATIONS

- » Not recommended for unsound substrates.
- » Although Flexseal PU440 is generally paintable, it is recommended test for the specific paint compatibility.
- » Long exposure to UV, will reduce surface gloss, but will not affect sealant performance.

CLEANING

Clean tools and equipment first with paper towels and then wipe by using Acetone, xylene or other suitable solvents.

PACKAGING

Flexseal PU440 is available in 600 ml sausage. 300 ml sausage and 300 ml cartridge are available on request.

CONSUMPTION IN JOINTS

(Linear meter per 600 ml sausage)

Width Depth	5 mm	10 mm	15 mm	20 mm	25 mm	35 mm
5 mm	22	11				
7.5 mm			4.9	3.4		
10 mm				2.8	2.2	
15 mm					1.5	1.0

STORAGE

Flexseal PU440 should be stored in original unopened packages at temperatures between 5°C and 25°C in a dry place.

SHELF LIFE

Flexseal PU440 has a shelf life of 12 months from date of manufacture if stored under the recommended conditions.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

CAUTIONS

HEALTH AND SAFETY

If Flexseal PU440 comes into contact with the eyes, flush with copious volumes of cold water and obtain medical attention.
Product is non-hazardous once cured.

For further information refer to the Material Safety Data Sheet.

FIRE

Flexseal PU440 is nonflammable.

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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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