

Donseal PU440

One component, non sag, elastomeric polyurethane sealant with high tear and weather resistance (Formerly known as Flexseal PU440)



Description

Donseal PU440 is a one component non sag polyurethane sealant that cures by reacting with air humidity to form a tough and highly elastic low modulus sealant. Donseal 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, aluminum, steel, ceramic, gypsum boards, etc.

Advantages

- ▲ Very easy and economical to use.
- ▲ One component.
- ▲ Excellent aging resistance.
- ▲ Paintable.
- ▲ Excellent acoustic properties.
- ▲ Remains elastic at temperatures down to -22°F (-30°C).
- ▲ Good resistance to microorganisms and a variety of chemicals.
- ▲ Good adhesion to most surfaces without need for priming.

Standards

Donseal PU440 complies with:

- ▲ ASTM C920, Type S, Grade NS, Class 25, Use NT, T, A and M.
- ▲ U.S. Federal specification TT-S-00230C, Type 2, Class A.
- ▲ ISO 11600, Type F, 25 LM.
- ▲ EN 15651-1:2012, F-EXT-INT-CC.
- ▲ DIN 18540-F.

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:	Various
Specific gravity:	1.18
Application temperature:	40 up to 100°F (4 to 38°C)
Service temperature:	-22 to 212°F (-30 to 100°C)
Shock temperature:	248°F (120°C)
Curing rate:	≈ 1/8" (3 mm)/day
Touch free time:	2 hr @ 77°F (25°C) & 55% RH
Shore A Hardness: ASTM C661	40 ± 5
Elongation at break:	> 600%
Tensile strength at 100% elongation: ISO 8339	> 360 psi (2.5 MPa)
Modulus @ 100%:	58 psi (0.4 MPa)
Adhesion in peel: ASTM C794	
Concrete	No adhesion loss at 25 lbf (111 N)
Aluminum	No adhesion loss at 30 lbf (133.2 N)
QUV accelerated weathering test: (4 hr UV @ 140°F (UVB-Lamps) and 4 hr COND @ 122°F)	Passed after 2000 hr
Thermal resistance:	Passed 100 days @ 176°F (80°C)
Movement accommodation: ASTM C719	± 25%
VOC:	< 75 g/ltr

Priming

- ▲ Donseal 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.

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- ▲ For joints of porous substrates which will be continuously submerged in water, it is recommended to use Flexprime PS100.
- ▲ Apply Donseal PU440 within 10 - 30 minutes from the application of Flexprime PS100 at 73°F (23°C).

Application

The recommended application temperature range is 40°F to 100°F (4°C to 38°C). For cold weather application, store the product in a heated area at 68°F (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 1/4" (6 mm).

Limitations

- ▲ Not recommended for unsound substrates.
- ▲ Although Donseal 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

Donseal PU440 is available in 20.2 fl. oz. (600 ml) sausages, and in 10.1 fl. oz. (300 ml) moisture proof cartridges.

Consumption in joints

(Lineal feet per 10.1 fl. oz. cartridges)

Width \ Depth	1/4"	3/8"	5/8"	3/4"	15/16"
1/4"	24.4	16.3			
3/8"			6.5	5.4	4.3
5/8"					2.6

Storage

Donseal PU440 should be stored in original unopened packages at temperatures between 40°F and 77°F (4°C and 25°C) in a dry place.

Shelf Life

Donseal 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 Donseal PU440 comes into contact 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

Donseal PU440 is nonflammable.

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- ▲ Concrete admixtures.
- ▲ Surface treatments
- ▲ Grouts and anchors.
- ▲ Concrete repair.
- ▲ Flooring systems.
- ▲ Protective coatings.
- ▲ Sealants.
- ▲ Waterproofing.
- ▲ Adhesives.
- ▲ Tile adhesives and grouts.
- ▲ Building products.
- ▲ Structural strengthening.

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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.

