

## DESCRIPTION

Polywater<sup>®</sup> ZipSeal™ Duct Sealant is packaged in a 25 mL syringe (no tool needed) with mesh strips. Under moderate pressure, ZipSeal holds water, acids, dust, and gases out of the duct. It also deters insects and rodents from entering the duct. ZipSeal expands and hardens to a closed cell, rigid structure in minutes.

## COMPONENT PROPERTIES

	PART A	PART B
Chemical description	polymeric MDI	polyether polyol
Appearance	amber liquid	clear liquid
VOC	0 g/L	0 g/L
Specific gravity	1.2	1.1
Viscosity	250 cPs	8,000-10,000 cPs
Shelf life	15 months	15 months

## TYPICAL PHYSICAL PROPERTIES

	METHOD	VALUE
Density	ASTM D1622	5.5 lb/ft <sup>3</sup> (88 kg/m <sup>3</sup> )
Compressive strength	ASTM D1621	95 psi (0.65 N/mm <sup>2</sup> )
% Porosity	ASTM D2856	>97% closed cell
Tensile strength	ASTM D638	125 psi (0.86 N/mm <sup>2</sup> )
Flexural strength	ASTM D790	105 psi (0.72 N/mm <sup>2</sup> )
Water absorption	ASTM D2842	<1.5%

## PERFORMANCE

ZipSeal is a high-performance duct sealant. It will hold moderate water pressure if the conduit and cable are cleaned prior installation. When the conduit is sanded prior to cleaning, the performance can be improved.

CONDITION	WATER PRESSURE	TEST TIME	RESULT
PVC and HDPE conduit	10 feet (3 m)	168 hours	Pass (watertight)
PVC and HDPE conduit	30 feet (9.1 m)	24 hours	Pass (watertight)

CONDITION	AIR PRESSURE	TEST TIME	RESULT
PVC and HDPE conduit (25 mL or 50 mL kit)	2 psi (130 mbar)	24 hours	Pass (airtight)

## CABLE COMPATIBILITY

ZipSeal is compatible with common cable jacket materials. It does not change the physical or electrical properties of cable, based on tensile/elongation and volume resistivity testing. The cured foam is an inert solid that does not affect cable components.

## APPLICATION PROPERTIES

	VALUE
Density	5.5 lb/ft <sup>3</sup> (88 kg/m <sup>3</sup> )
Rise time	~1 minute
Tack-free time	~2 minutes
Mixed color	Uniform cream yellow

## CURE RATE

ZipSeal can be installed in temperatures as low as 35° F (2° C). At low temperatures, the reaction is slower, but the sealant will completely foam and cure with time. For best results keep the cartridge at room temperature prior to installation.

## RODENT DETERRENT

ZipSeal contains rodent deterrent. A rodent test was conducted using a 5/8-inch (16 mm) barrier of a Polywater foam containing the same rodent deterrent, FST. FST prevented the entry of rodents for 24 hours. Details available upon request.

## SAFETY

ZipSeal is a two-part urethane foam containing reactive chemicals. Polyurethanes are common in the construction industry and have been used for many years. Some individuals may become sensitized to components in the unreacted resin. Precautions should be taken during use and handling of these materials.

The use of ZipSeal in the prepackaged syringe controls and reduces exposure. A monitoring study using OSHA Sampling Method 47 MOD shows that exposure is well under limits set by this agency. Full paper can be found on our website: [Urethane MDI Monitoring White Paper](#).

Once reacted, the foam is solid, closed-cell polyurethane. The finished product is non-toxic. See SDS for more information.

## STORAGE AND HANDLING

Store in a cool dry space. Protect from freezing. Warm to room temperature before use for best results. Product shelf life is 15 months.

## FIRE PROPERTIES

Meets UL 94 HBF fire rating criteria. Self-extinguishes when exposed to a flame for 1 minute.

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## CONTACT US

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**IMPORTANT NOTICE:** The statements here are made in good faith based on tests and observations we believe to be reliable. However, the completeness and accuracy of the information is not guaranteed. Before using, the end-user should conduct whatever evaluations are necessary to determine that the product is suitable for the intended use.

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