

Reactive Thread Sealant Expand-A-Seal®

August 2018

Product Description

Expand-A-Seal® is a unique expanding thread sealing and locking epoxy compound. Expand-A-Seal is design for the hard to seal treaded assemblies. Once mating parts are assembled, Expand-A-Seal increases in material volume by 20 to 50%, filling all voids in the threaded assembly. The product is compatible with both straight and tapered pipe threads on aluminum, steel, plated, stainless steel, and special alloy parts. Expand-A-Seal exhibits excellent temperature and solvent resistant.

Typical Applications

Expand-A-Seal is used to seal critical applications where shock and vibration may cause a fastener to loosen. Applications include engine pipe plugs, air fitting connectors, compressor fittings, and cooling connectors.

Performance of Cured Material

Fixture Time 60 min @ 72°F Full Cure Time 24 hrs @ 72°F Temperature Range -60°F to 300°F (-51°C to 150°C)

Breakaway Strength Typical Values

M-10 Phosphate oil bolt Zinc Test Nut @24 hr 13 N-m M-10 Zinc plate bolt Zinc Test Nut @24hr 12 N-m

Environmental and Fluid Resistance

Tests were conducted on M-10 x 1.5 phosphate-oil, zinc plate and zinc dichromate bolt into an aluminum test block drill tapped to a 8.676 mm minor diameter. The block was 19 mm thick. Coated parts were assembled into the Aluminum block and submersed in the fluid for 30 days; the parts were tested for sealing while at temperature and tested for breakaway strength at Room Temperature.

(Shear strength values)

	Seals
Typical Values	
Engine oil@ 150°C	Pass 100%
Brake fluid @ 150°C	Pass 98%
ATF @ 150°C	Pass 100%
50/50 water/	
ethylene glycol @ 120°C	Pass 100%
Gasoline @ 25°C P	Pass 88%
Diesel Fuel @25°C	Pass 100%

General Information

Storage

Product should be stored in a cool and dry location at temperatures between -10°C to 30°C. Optimal storage is 22±4°C.

Note

The data are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is recommended that the product be tested in the application for which it is to be used.

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