

PR-705 fuel tank channel sealant

Description

PR-705 is a non-curing fuel tank channel sealant. It has a service temperature range from -65°F (-54°C) to 220°F (104°C). The material is designed for sealing aircraft fuel tanks utilizing a channel/groove design with gaps up to 5 mils wide. The material offers excellent resistance to water and hydrocarbon aircraft fuels like JP-4 or JP-8.

PR-705 is a one part, polysulfide compound. The material is a heavy, putty-like compound suitable for application by high pressure injection gun.

The following tests are in accordance with MIL-S-85334 (AS) specification test methods.

Application properties (typical)

| | |
|---|-----------|
| Color | White |
| Injection time, seconds (maximum, 5 mil gap, 2800 psi) | 25 |
| Side flow | None |
| Reinjection time, seconds, 2800 psi | 8 |
| Pressure rupture, lbs (inches Hg) | 3.5 (7.1) |

Performance properties (typical)

| | |
|---|------------|
| Specific gravity, maximum | 1.45 |
| Nonvolatile content, % | 98.5 |
| Fuel resistance, 72 hours @ 158°F (70°C), volume change, % | |
| JRF immersion | 35 |
| JP-4 immersion | 17 |
| Weight loss, %, dried 3 days @ 120°F (49°C) | |
| JRF immersion | 3.3 |
| JP-4 immersion | 2.0 |
| Cohesion adhesion, % | 100 |
| Corrosion | None |
| Plastometer extrusion force, lbs (Newtons meter/meter) | 275 (1223) |
| Low temperature flexibility @ -65°F (-54°C) - No cracking or checking. | |
| Cold flow | None |

Note: The application and performance property values above are typical for the material, but not intended for use in specifications or for acceptance inspection criteria because of variations in testing methods, conditions and configurations.

Surface preparation

PR-705 exhibits positive adhesion to most metal and coated metal surfaces. Substrates should be cleaned with solvents to remove contamination such as dirt, grease or other processing lubricants.

Application

PR-705 is supplied in 6 oz. Semco® cartridges. A maximum pressure of 2800 lbs (12,455 Newtons) is used at an air pressure of approximately 40 psi (276 K-Pa) using a model 223 Grover-Smith injection gun with a Semco® cartridge adapter kit #226356. This material is compatible with polyfluoro and polycyanosiloxane based channel sealants as well as polysulfides.

Storage life

The storage life of PR-705 is at least 12 months when stored at temperatures below 80°F (27°C) in the original unopened containers.

Health precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Material Safety Data Sheet, (MSDS) which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An MSDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure.

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For industrial use only. Keep away from children.

For emergency medical information, call 1-800-228-5635.

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