

### PR-1440 M Class S, sprayable fuel tank sealant

#### Description

PR-1440 M Class S is a fast curing sealant designed to protect internal and external surfaces of integral fuel tanks and pressurised cabins via a 'fill and drain' application process. It has a service temperature range from -55°C (-67°F) to 120°C (248°F). The cured sealant has outstanding resistance to jet fuel, aviation gas and petroleum based oils in the aerospace environment.

PR-1440 M Class S is a three-part, manganese dioxide cured polysulfide compound. Once mixed, the uncured material has a fluid consistency suitable for application by spray gun. It cures at room temperature to form a resilient sealant having excellent adhesion to common aircraft substrates.

#### Application properties (typical)

|        |           |
|--------|-----------|
| Colour |           |
| Part A | Beige     |
| Part B | Black     |
| Part C | Clear     |
| Mixed  | Dark grey |

|           |                        |
|-----------|------------------------|
| Mix Ratio | Part A: Part B: Part C |
| by weight | 100: 21.5: 42          |

Application life and cure time at 23°C (73°F), 50% RH

|     | Application life (hours) | Tack free time (hours) | Time to 30 shore A* (hours) |
|-----|--------------------------|------------------------|-----------------------------|
| S-2 | 2                        | <8                     | 24                          |

\*Instantaneous hardness measurement

#### Performance properties (typical)

Standard cure 14 days @ 25°C (77°F), 50% RH

|  |       |
|--|-------|
| Cured specific gravity                     | <1.50 |
| Non-volatile content, %                    | >60   |
| Ultimate cure hardness, Shore A            | >45   |
| Peel Strength, N/mm, 100% cohesive failure |       |
| No exposure                                |       |
| Aluminium (alclad 2024)                    | >4    |

Resistance to fluids: excellent resistance to water, alcohols, synthetic and petroleum-based lubricating oils, and petroleum-based hydraulic fluids.

Low-temperature flexibility @ -54°C (-65°F) – no cracking, checking or loss of adhesion.

Reparability: excellent to both freshly cured sealant as well as fuel aged abraded fillets.

**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

Immediately before applying sealant to primed substrates, the surfaces should be cleaned with solvents. Contaminants such as dirt, grease, and/or processing lubricants must be removed prior to sealant application. A progressive cleaning procedure should be employed using appropriate solvents and a new lint-free cloth. (Reclaimed solvents or tissue paper should not be used).

Always pour solvent on the cloth to avoid contaminating the solvent supply. Wash one small area at a time. It is important that the surface is dried with a second clean cloth prior to the solvent evaporating to prevent the redeposition of contaminants on the substrate

Substrate composition can vary greatly. This can affect sealant adhesion. It is recommended that adhesion characteristics to a specific substrate be determined prior to application on production parts or assemblies.

For a more thorough discussion of proper surface preparation, please consult the SAE Aerospace Information Report AIR 4069. This document is available through SAE, 400 Commonwealth Avenue, Warrendale, PA 15096-0001.

#### Mixing instructions

PR-1440 M Class S is supplied in a three-part kit. Mix according to ratios indicated in the application properties section.

Mix base (Part A) and accelerator (Part B) separately to uniformity. Pour about 1/3 of the diluent (Part C) to the base and thoroughly mix for 1 minute taking care to avoid leaving unmixed areas around the sides or bottom of the mixing container. Repeat this twice more until all of the diluent has been mixed with the base.

Add the accelerator into the base/diluent mixture and thoroughly mix for 5 minutes, again taking care to avoid leaving unmixed areas around the sides or bottom of the mixing container. The product is now ready for use.

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CAUTION: Do not mix accelerator with the base until ready to use.

### Storage life

The storage life of PR-1440 M Class S is 6 months when stored in original, unopened containers at temperatures between 4-27°C (39-81°F). During storage, slight variations in the application characteristics may occur. This does not affect either the overall application properties or the final performance properties of the product.

### Health precautions

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

**For industrial use only. Keep away from children.**

**For emergency medical information call:  
1-800-228-5635.**

**Additional information can be found at:  
[www.ppgaerospace.com](http://www.ppgaerospace.com)**

**For sales and ordering information call:  
1-800-AEROMIX (2376649).**

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