P/S 890-M Class A low viscosity fuel tank sealant

Description

P/S 890-M Class A is an aircraft integral fuel tank sealant. It has a service temperature range from -65°F (-54°C) to 250°F (121°C), with intermittent excursions up to 275°F (135°C). This material is designed for brush and fay sealing of fuel tanks and other aircraft fuselage sealing applications. The cured sealant maintains excellent elastomeric properties after prolonged exposure to both jet fuel and aviation gas.

P/S 890-M Class A is a two-part, manganese dioxide cured polysulfide compound. The uncured material is suitable for application by brush. It cures at room temperature to form a resilient sealant having excellent adhesion to common aircraft substrates.

The following tests are in accordance with BMS 5-45 specification test methods.

Application properties (typical)

Color	
Part A	Black
Part B	Gray
Mixed	Dark Gray
Mixing ratio	Part A:Part B
By weight	10:100
Base viscosity (Brookfield #4 @ 10 rpm), Poise (Pa-s)	10 (1)

Application life and cure time @ 77°F (25°C), 50% RH

	Application life (hours)	Tack free time (hours)	Cure time to 30 A Durometer (hours)
A-1/2	1/2	<10	30
A-2	2	<16	72

Performance properties (typical)

Cured 14 days @ 77°F (25°C), 50% RH	
Cured specific gravity	1.63
Nonvolatile content, %	70
Peel strength, pli (N/25 mm), 100% cohesion (B over A sealing system)	
Dry	
MIL-C-5541 (Alodine aluminum)	30 (133)
MIL-A-8625 (Anodized aluminum)	29 (129)
MIL-S-5059 Type 302 (Stainless Steel)	30 (133)
MIL-T-9046 Type I Comp. B (Titanium)	30 (133)
BMS 10-20 (Integral Fuel Tank Coating)	30 (133)
JRF(AMS 2629) immersion, 7 days @ 140°F (60°C)	
MIL-C-5541 (Alodine aluminum)	28 (124)
MIL-A-8625 (Anodized aluminum)	30 (133)
MIL-S-5059 Type 302 (Stainless Steel)	29 (129)
MIL-T-9046 Type I Comp. B (Titanium)	29 (129)
BMS 10-20 (Integral Fuel Tank Coating)	30 (133)
JRF(AMS 2629)/NaCl-H_2O immersion, 7 days @ 140°F (60°C)	
MIL-C-5541 (Alodine aluminum)	30 (133)
MIL-A-8625 (Anodized aluminum)	32 (142)
MIL-S-5059 Type 302 (Stainless Steel)	32 (142)
MIL-T-9046 Type I Comp. B (Titanium)	34 (151)
BMS 10-20 (Integral Fuel Tank Coating)	33 (147)
Tensile strength, psi (KPa)	
Dry	300 (2070)
JRF(AMS 2629) immersion, 7 days @ 140°F (60°C)	210 (1449)
Elongation, %,	
Dry	225
JRF(AMS 2629) immersion, 7 days @ 140°F (60°C)	200
Corrosion Resistance - No corrosion, adhesion loss, softening, or blistering after 20-day immersion in 2-layer salt water/JRF (AMS 2629) @140°F (60°C).	

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.

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A PPG Industries Company

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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 conforming to AMS 3819. (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.

Packaging Options
P/S 890-MA is supplied in two-part can kits, Semkits and pre-mixed and frozen Semco cartridges.

Storage life
The storage life of P/S 890M Class A in two-part can kits and Semkits is at least 6 months when stored at temperatures below 80°F (27°C) in original unopened containers.

The storage life of P/S 890M Class A in pre-mixed and frozen Semco cartridges is at least 30 days when stored at temperatures below -40°F(-40°C).

Mixing instructions
Mix according to the ratios indicated in the application properties section. Mix Part A and Part B separately to uniformity, then thoroughly mix entire contents of both parts of the kit together taking care to avoid leaving unmixed areas around the sides or bottom of the mixing container.

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.

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

For sales and ordering information call 1-800-AEROMIX (237-6649).

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