

TECHNICAL DATA

PR-1773 Class B Corrosion Inhibitive Access Door Sealant

Description

PR-1773 Class B is a low adhesion, non-chromate, corrosion inhibitive sealant. It has a service temperature range from -65°F (-54°C) to 250°F (121°C), with intermittent excursions up to 300°F (149°C). The material is designed for use as an access door sealant or in the fabrication of form-in-place (FIP) gaskets. This material acts as an effective barrier against the common causes of corrosion on aluminum alloys or between dissimilar metals.

PR-1773 Class B is a two-part, manganese dioxide cured, polysulfide compound. The uncured material is a low sag, thixotropic paste suitable for application by extrusion gun or spatula. It cures at room temperature to form a removable seal to common aircraft substrates.

The following tests are in accordance with AMS 3284 Class B specification test methods.

Application Properties (Typical)

Color			
Part A	Black		
Part B	Red		
Mixed	Dark red		
Mixing ratio			
By weight	Part A:Part B 10:100		
Base viscosity (Brookfield #7 @ 2 rpm), Poise (Pa-s)			
	11,600 (1160)		
Slump, inches (mm)			
	Initial	50 Minutes	90 Minutes
B-1/2	0.10 (2.54)	—	—
B-2	0.10 (2.54)	0.10 (2.54)	0.10 (2.54)
Application life and cure time @ 77°F (25°C), 50% RH			
	Application life (hours)	Tack free time (hours)	Cure time to 20 A Durometer (hours)
B-1/2	1/2	<4	6
B-2	2	<8	16

Performance Properties (Typical)

Cured 14 days @ 77°F (25°C), 50% RH	
Cured specific gravity	1.65
Nonvolatile content, %	98
Ultimate cure hardness, Durometer A	55
Peel strength, pli (N/25 mm), positive adhesion with 100% adhesive mode of failure	
Dry, 14 days @ 77°F (25°C), 50 % RH	
AMS 2471 (Anodized aluminum)	<1 (<4.44)
AMS 4901 (Titanium)	<1 (<4.44)
AMS 5516 (Stainless steel)	<1 (<4.44)
BMS 10-20 (Epoxy primer)	<1 (<4.44)
DMS 1786 (Epoxy primer)	<1 (<4.44)
MIL-C-5541 (Alodine aluminum)	<1 (<4.44)
MIL-C-27725 (IFT coating)	<1 (<4.44)
QQ-A-250/12 (Aluminum)	<1 (<4.44)
QQ-A-250/13 (Alclad)	<1 (<4.44)
AMS 2629 JRF immersion, 7 days @ 140°F (60°C)	
AMS 2471 (Anodized aluminum)	<1 (<4.44)
AMS 4901 (Titanium)	<1 (<4.44)
AMS 5516 (Stainless steel)	<1 (<4.44)
BMS 10-20 (Epoxy primer)	<1 (<4.44)
DMS 1786 (Epoxy primer)	<1 (<4.44)
MIL-C-5541 (Alodine aluminum)	<1 (<4.44)
MIL-C-27725 (IFT coating)	<1 (<4.44)
QQ-A-250/12 (Aluminum)	<1 (<4.44)
QQ-A-250/13 (Alclad)	<1 (<4.44)
AMS 2629 JRF/NaCl-H ₂ O immersion, 7 days @ 140°F (60°C)	
AMS 2471 (Anodized aluminum)	<1 (<4.44)
AMS 4901 (Titanium)	<1 (<4.44)
AMS 5516 (Stainless steel)	<1 (<4.44)
BMS 10-20 (Epoxy primer)	<1 (<4.44)
DMS 1786 (Epoxy primer)	<1 (<4.44)
MIL-C-5541 (Alodine aluminum)	<1 (<4.44)
MIL-C-27725 (IFT coating)	<1 (<4.44)
QQ-A-250/13 (Alclad)	<1 (<4.44)
Corrosion test by galvanic cell method	
AMS 4045 Aluminum/AMS 4911 Titanium couple, 2 weeks - No signs of corrosion or sealant deterioration.	
AMS 4045 Aluminum/AMS 2400 Cadmium couple, 2 weeks - No signs of corrosion or sealant deterioration.	

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AMS 4045 Aluminum/Epoxy-graphite composite couple, 2 weeks - No signs of corrosion or sealant deterioration.

Low temperature flexibility @ -65°F (-54°C) - No cracking or checking.

Resistance to hydrocarbons - 7 days @ 140°F (60°C) immersed in AMS 2629 JRF.

Weight loss, % 5.7

Flexibility - No cracks after bending 180 degrees over 0.125 inch (3.18 mm) mandrel.

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 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.

Packing Options

PR-1773 Class B is supplied in two-part can kits, Semco® cartridges, and pre-mixed and frozen Semco® cartridges.

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 kit together taking care to avoid leaving unmixed areas around the sides or bottom of the mixing container.

Storage Life

The storage life of PR-1773 Class B is at least 9 months when stored at temperatures below 80°F (27°C) in original, unopened containers.

The storage life of PR-1773 Class B in pre-mixed and frozen Semco® cartridges is at least 30 days when stored at temperatures below -40°F (-40°C).

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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PRC-DeSoto International, Inc.
12780 San Fernando Road
Sylmar, CA 91342
Telephone (818) 362-6711
Toll Free (800) AEROMIX
www.ppgaerospace.com

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