

P/S 875 Class B low weight corrosion inhibitive sealant

Description

P/S 875 Class B is a low weight corrosion inhibitive 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 acts as an effective barrier against the common causes of corrosion on aluminum alloys or between dissimilar metals. It offers as much as a twenty percent weight savings, per unit volume, over traditional sealants used for these purposes. The cured sealant maintains excellent elastomeric properties after limited exposure to both jet fuel and aviation gas.

P/S 875 Class B is a two part, chemically curing, Permapol® P-5 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 resilient sealant having excellent adhesion to common aircraft substrates.

The following tests are in accordance with BMS 5-142 Class B specification test methods.

Application properties (typical)

Color			
Part A	Black		
Part B	Green		
Mixed	Gray		
Mixing ratio, by weight			
B-1/2	15:100		
B-2	10:100		
Base viscosity			
(Brookfield #7 @ 2 rpm),			
Poise (Pa-s)	12,560 (1256)		
Slump, inches (mm)			
	Initial	50 Minutes	90 Minutes
B-1/2	0.05 (1.27)	—	—
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 30 A Durometer (hours)
B-1/2	1/2	<10	24
B-2	2	<24	48

Performance properties (typical)

Cured 14 days @ 77°F (25°C), 50% RH	
Cured specific gravity	1.01
Nonvolatile content, %	93
Ultimate cure hardness, Durometer A	42
Chromate level, %	3.1
Peel strength, pli (N/25 mm), 100% cohesion	
Type III fuel immersion, 7 days @ 120°F (49°C)	
BMS 10-11 (Epoxy primer)	25 (111)
BMS 10-60 (Polyurethane topcoat)	24 (107)
MIL-A-8625 (Anodized aluminum)	25 (111)
MIL-C-5541 (Alodine aluminum)	25 (111)
MIL-S-5059 (Stainless steel)	33 (147)
MIL-T-9046 (Titanium comp. B)	25 (111)
QQ-A-250/13 (Alclad)	30 (133)
NaCl-H ₂ O immersion, 7 days @ 120°F (49°C)	
BMS 10-11 (Epoxy primer)	26 (116)
BMS 10-60 (Polyurethane topcoat)	30 (133)
MIL-A-8625 (Anodized aluminum)	34 (151)
MIL-C-5541 (Alodine aluminum)	28 (125)
MIL-S-5059 (Stainless steel)	34 (151)
MIL-T-9046 (Titanium comp. B)	35 (156)
QQ-A-250/13 (Alclad)	29 (129)
Tensile strength, psi (KPa)	
Standard cure, 14 days @ 77°F (25°C), 50% RH	
	213 (1469)
7 days immersion in Type III @ 120°F (49°C)	
	169 (1165)
Elongation, %	
Standard cure, 14 days @ 77°F (25°C), 50% RH	
	217
7 days immersion in Type III @ 120°F (49°C)	
	200

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Corrosion resistance - No corrosion, adhesion loss, softening, or blistering after 7-day immersion in JRF @ 120°F (49°C).

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

Weight loss, % 4.7

Resistance to heat - No softening, sponging blistering, checking, cracking, shrinkage, or adhesion loss

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

Repairability to itself - Excellent to both freshly cured as well as fuel aged and abraded fillets.

Crazing - No deterioration or crazing of polymethyl methacrylate.

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 the appropriate solvents and 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

P/S 875 Class B is supplied in a two-part kit. 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 P/S 875 Class B is at least 6 months when stored at temperatures below 80°F (27°C) in 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.

For industrial use only. Keep away from children.

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

For sales and ordering information call 775-323-7542

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