Technical Data Sheet

Aerospace Sealants

P/S 872 Class B conductive lightning strike sealant

Description

P/S 872 Class B is a conductive lightning strike, 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). The cured sealant maintains electrical continuity in a highly torqued fay surface for certain aircraft applications. The material acts as an effective barrier against the common causes of corrosion on aluminum alloys or between dissimilar metals. The cured material is resistant to intermittent exposures to both jet fuel and aviation gas.

P/S 872 Class B is a two-part, aluminum-filled, 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 resilient sealant having excellent adhesion to common aircraft substrates.

P/S 872 Class B is also available in preformed parts using PPG's proprietary Ambient Reactive Extrusion (PPG ARE™) additive printing technology.

The following tests are in accordance with PRC-DeSoto International specification test methods, unless otherwise noted.

Application properties (typical)

Color	
Part A	black
Part B	white
Mixed	light gray
Mixing Ratio	Part A:Part B
By weight	17:100
Viscosity of Base Compound, Poise (Pa-s)	
(Brookfield #7 @ 2 rpm)	10, 000 (1,000)

Slump, inches (mm)

	Initial	50 minutes	90 minutes
B-1/2	0.25 (6.4)	—	—
B-2	0.20 (5.1)	0.20 (5.1)	0.20 (5.1)

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

	Application life (hours)	Tack free time (hours)	Cure time to 30 Durometer A (hours)
B-1/2	1/2	< 10	30
B-2	2	< 36	72

Performance properties (typical)

Cured 14 days @ 77 °F (25 °C), 50 %RH

Specific gravity	1.62
Nonvolatile content, %	98
Ultimate cure hardness, Durometer A	55
Peel strength, pli (N/25 mm), 100% cohesion	
AMS2629 Type I immersion, 7 days @ 140 °F (60 °C)	
AMS5516 (stainless steel)*	27 (120)
AMS4911 (titanium)*	27 (120)
AMS4049 (alclad)	27 (120
AMS2629 Type I fuel / 3% saltwater immersion, 7 days @ 140 °F (60 °C)	
AMS5516 (stainless steel)*	25 (111)
AMS4911 (titanium)*	25 (111)
AMS4049 (alclad)	25 (111)
*Primed with AMS 3100 Adhesion Promoter	
Tensile Strength, psi (kPa)	
Standard cure + 14 days @ 77 °F (25 °C), 50% RH	250 (1724)
Standard cure + 7 days @ 250 °F (121 °C)	200 (1379)
Elongation, %	
Standard cure + 14 days @ 77 °F (25 °C), 50% RH	200
Standard cure + 7 days @ 250 °F (121 °C)	150

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

Corrosion resistance — no corrosion, adhesion loss, softening, or blistering after immersion in 2-layer AMS2629 Type I/3% saltwater/vapor after 20 days @ 140 °F (60 °C).

Resistance to hydrocarbons — AMS2629 Type I fuel immersion, 7 days @ 140 °F (60 °C):

Weight loss, %	5.5

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

Resistance to other fluids — Excellent resistance to water, alcohols, petroleum-base and synthetic lubricating oils, and petroleum-base hydraulic fluids.

Fungus resistance	Non-nutrient

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.

Packing options

P/S 872 Class B is supplied in a two-part can kit or Semkit®.

P/S 872 Class B is also available in preformed parts using *PPG ARE* technology.

Storage life

The storage life of P/S 872 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 Safety Data Sheet (SDS) which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An SDS is available upon 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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