Technical Data Sheet
Aerospace Sealants

PR-812 firewall sealant

Description
PR-812 is a high temperature, primerless firewall sealant. It has a service temperature range from -65 °F (-54 °C) to 400 °F (204 °C), and will withstand flash temperatures of 2000 °F (1093 °C). The material is designed for sealing firewall structures against the passage of air and vapors.

PR-812 is a two-part,synthetic rubber compound. The uncured material is a low sag paste suitable for application by extrusion gun or spatula. It cures at room temperature to form a resilient sealant to common aircraft substrates.

The following tests are in accordance with AMS3381 specification test methods.

Application properties (typical)

Color	
part A	brown
part B	black
mixed	black
Mixing ratio	part A: part B
by weight	2.5:100
Base viscosity (Brookfield #7 @ 10 rpm), Poise (Pa-s)	18,500 (1,850)
Slump, inches (mm)	0.20 (5.08)

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

Application life (hours)	Tack free time (hours)	Cure time to 30A Durometer (hours)
2	<4	48

Performance properties (typical)

Cured 14 days @ 77 °F (25 °C), 50% RH	
Cured specific gravity	1.33
Nonvolatile content, %	65
Ultimate cure hardness, Durometer A	75
Peel strength, pli (N/25 mm)	
dry (no exposure)	
AMS2471 (anodized aluminum)	25 (112)
AMS4911 (titanium)	24 (108)
AMS5517 (stainless steel)	30 (134)
72 hours at 400°F in air	
AMS2471 (anodized aluminum)	19 (85)
AMS4911 (titanium)	12 (54)
AMS5517 (stainless steel)	17 (76)

Thermal rupture resistance - Retains pressure of 5 psi with only negligible deformation, both before and after flame test @ 2000 °F (1093 °C)

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

Corrosion resistance - No corrosion, adhesion loss, softening,or blistering after 20-day immersion in 3% salt water solution @ 140 °F (60 °C).

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

Flame resistance - No flame penetration after 15 minutes @ 2000 °F (1093 °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.

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-812 is supplied in two-part can kit and two-part SEMKIT® cartridges.

Mixing instructions

Mix according to the instructions listed on the container taking care to avoid leaving unmixed areas.

Storage life

The storage life of PR-812 is at least 12 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 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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