

TECHNICAL DATA

PR-1436-G Sprayable Corrosion Inhibitive Sealant

Description

PR-1436-G is a sprayable, corrosion inhibitive coating. It has a service temperature range from -65°F (-54°C) to 225°F (107°C), with intermittent excursions up to 250°F (121°C). This material acts as an effective barrier against the common causes of corrosion on aluminum alloys or between dissimilar metals.

PR-1436-G Sprayable is a two-part, dichromate cured polysulfide compound. The uncured material is suitable for application by spray. It cures at room temperature to form a resilient sealant having excellent adhesion to common aircraft substrates.

The following tests are in accordance with MIL-PRF-81733 Type III-1 specification test methods.

Application Properties (Typical)

Color		
Part A		Dark amber
Part B		Aluminum-gray
Mixed		Aluminum-gray
Mixing ratio		
By weight		Part A:Part B 8:100
Base viscosity (Brookfield #2 @ 10 rpm), Poise (Pa-s)		
		85 (8.5)
Application life and cure time @ 77°F (25°C), 50% RH		
		Cure time
Application life (hours)	Tack free time (hours)	to 30 A Durometer (hours)
1	6	30

Performance Properties (Typical)

Cured 14 days @ 77°F (25°C), 50% RH	
Cured specific gravity	1.45
Nonvolatile content, %	66
Ultimate cure hardness, Durometer A	50
Chromate content, %	4
Recommended thickness, mils (dry)	5 - 8

Shear strength, psi, 100% cohesion

Standard cure, 14 days
@ 77°F (25°C), 50% RH 250

7 days immersion in JRF
@ 140°F (60°C) 200

7 days immersion in Skydrol 500
hydraulic fluid @ 120°F (49°C) 150

Tensile strength, psi (KPa)

Standard cure, 14 days
@ 77°F (25°C), 50% RH 350 (2413)

Elongation, %

Standard cure, 14 days
@ 77°F (25°C), 50% RH 175

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

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

Weight loss, % 6.0

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.

Corrosion resistance - No corrosion to base substrate or deterioration of sealant.

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 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.

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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-1436-G Sprayable is supplied in two-part kits and Semco® cartridges.

Mixing Instructions

PR-1436-G Part B has a tendency to settle out during storage; therefore, proper mixing and correct proportions are extremely important if maximum results are to be obtained.

Thoroughly stir or paint shake Part B to obtain a uniform consistency before addition of Part A. Stir Part A in its container or hand shake the smaller kits until uniform consistency is obtained.

The recommended mixing method is with a paint shaker. Add all the Part A to the Part B being sure to scrape the sides and bottom of the container. Replace the lid on the Part B container. For mixing pint, quart, or gallon kits, use a standard gallon capacity paint shaker. Vibrate the shaker at 1350 vibrations/minute for 3 minutes in an upright position followed by 3 minutes in an inverted position. Larger quantities such as 5 gallons are generally mixed in 10 gallon pressure pots using an air driven agitator. Full containers cannot be mixed on a paint shaker. Longer paint shaking will decrease application time and tack free time.

For ease in spray applications, the material may be thinned by the addition of solvents. Thinning of the mixed material must be accomplished only after mixing of the two components. Therefore, immediately after mixing, transfer the mixed material to a self stirring pressure pot. Depending on the spraying equipment and technique employed, thin up to 20 - 30 percent (by volume) with 50% methyl ethyl ketone and 50% toluene blend (by volume) and mix in the pressure pot for two minutes at 70 rpm.

Movement of air past the surfaces after application of PR-1436-G Sprayable facilitates removal of solvents and speeds up the tack free time.

Storage Life

The storage life of PR-1436-G Sprayable is at least 6 months when stored at temperatures between 40°F (5°C) and 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.

Additional information can be found at:
www.ppgaerospace.com

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

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