

# TECHNICAL DATA

## PR-2050 Class B Rapid Curing Aerodynamic Smoothing Compound

### Description

PR-2050 Class B is a rapid curing compound designed for aerodynamic smoothing and gap filling applications. It has a service temperature range of -65°F (-54°C) to 250°F (121°C), with intermittent exposures up to 400°F (204°C). This product has low shrinkage and cures to a sandable hardness in at least one hour at 77°F (25°C) or above. When cured, PR-2050 Class B remains flexible, reducing potential cracking problems that can be experienced with more brittle sealing compounds.

PR-2050 Class B is a two-part, epoxy cured, Permapol® P-3.1 polythioether compound. The cured product will not degrade after limited exposure to jet fuel and aviation gas, nor with limited contact to diphosphate ester based hydraulic fluids. PR-2050 Class B exhibits excellent adhesion to a wide variety of properly prepared aircraft surfaces.

The following tests are in accordance with PRC-DeSoto Standard.

### Application Properties (Typical)

Color			
Part A	Black		
Part B	White		
Mixed	Dark Gray		
Mixing ratio			
By weight	Part A:Part B 24:100		
By Volume	25:100		
Viscosity			
(Brookfield #7 @ 2 rpm), Poise (Pa-s)			
Part B	17,200(1,720)		
Cure to 55 durometer A			
	Application Life	Tack-Free Time	Cure to 35 Durometer A
B-1/4	15 min.	45 min.	1 hour
B-1/2	30 min	2 hours	3 hours
B-1	60 min	5 hours	6 hours

### Performance Properties (Typical)

Cured 7 days @ 77°F (25°C), 50% RH	
Cured specific gravity	1.5
Nonvolatile content, %	97
Ultimate cure hardness, Durometer A	70
Lap shear strength, psi (kN/m <sup>2</sup> )	
Dry, AMS-C-5516 (Stainless steel)	380 (2620)
Dry, AMS-C-4901 (Titanium)	350 (2413)
Dry, Mil-PRF-85582 (waterborne primer)	400 (2750)
Tensile strength, psi (kPa)	480 (3310)
Tear Strength, lbs/in	40
Elongation, %	80
Sandability	Excellent
Resistance to other fluids - Excellent resistance to water, alcohols, petroleum-base and synthetic lubricating oils, and petroleum-base hydraulic fluids.	

**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 compound to metallic, chemically treated, epoxy primed, or urethane primed substrates, the surfaces should be cleaned with solvents to remove contamination such as dirt, grease, and/or processing lubricants.

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 compound adhesion. It is recommended that adhesion characteristics to a specific substrate be determined prior to application on production parts or assemblies.

## **PR-2050 Class B Rapid Curing Aerodynamic Smoothing Compound**

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-2050 Class B is supplied in a Sempak™ package or a Semco® cartridge. See the container for specific mixing instructions.

### **Mixing Options**

PR-2050 Class B is provided in convenient mix on demand (side-by-side) packaging. Air driven dispensing equipment is recommended for ease of application.

### **Storage Life**

The storage life of PR-2050 Class B is at least 6 months when stored at temperatures between 60°F (16°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.**

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

**Additional information can be found at:  
[www.ppgaerospace.com](http://www.ppgaerospace.com)**

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

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