# Technical Data Sheet
## Aerospace Sealants

## PR-1425CF (chrome free*) Class B windshield and canopy sealant

### Description

PR-1425CF Class B is fast curing, chrome free*, aircraft windshield and canopy 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 is designed as an aircraft transparency sealant and has excellent adhesion to properly prepared glass, polycarbonate, and acrylic substrates. This product is specifically formulated not to craze substrates. The cured sealant exhibits excellent resistance to UV and weather exposure.

PR-1425CF Class B is a fast curing, two-part, manganese dioxide cured polysulfide compound. The uncured material is a low sag, thixotropic paste, suitable for application by extrusion gun or spatula. This sealant has excellent adhesion to common aircraft substrates, when correctly primed with PR-1861 adhesion promoter.

The following tests are in accordance with PRC-DeSoto International and other OEM specification test methods.

### Application properties (typical)

| | | |
|---|---|---|
| Color | | |
| part A | | Black |
| Part B | | Black |
| mixed | | Black |
| Mixing ratio by weight | | Part A: Part B 20:100 |
| base viscosity (Brookfield #7 @ 2 rpm), poise (Pa-s) | | 20,000 (2000) |

slump, inches (mm)

| | initial | 50 minutes | 90 minutes |
|---|---|---|---|
| B-1/2 | 0.20 (5.08) | ------ | ------ |
| B-1 | 0.15 (3.81) | ------ | ------ |
| B-2 | 0.20 (5.08) | 0.25 (6.35) | 0.25 (6.35) |

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 | <4 | 5 |
| B-1 | 1 | <5 | 5 |
| B-2 | 2 | <8 | 8 |

**Note:** Accelerated curing to 30 Shore A can be achieved by curing at 125°F for 4 hours for any application life.

### Performance properties (typical)

| | |
|---|---|
| Cured 7 days @ 77 °F (25 °C), 50% RH | |
| Cured specific gravity | 1.50 |
| Nonvolatile content, % | 98 |
| Ultimate cure hardness, durometer A | 47 |
| Tensile strength, psi (Mpa) | 430 (2.69) |
| Elongation, % | 235 |
| Peel strength, pli (N/25 mm), 100% cohesion* dry, 14 days at 77 °F (25 °C) | |
| AMS-G-25667 (glass) | 47 (206) |
| MIL-PRF-8184 (acrylic)* | 65 (285) |
| AMS-P-83310 (polycarbonate)* | 59 (258) |
| AMS4045 (aluminum) | 56 (245) |
| MIL-PRF-85285 (urethane topcoat) | 55 (241) |

*Abraded with 220 grit sandpaper and primed with PR-1861 Adhesion Promoter

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

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 aged and abraded fillets.

Rain erosion resistance
excellent rain erosion resistance and buffing ability.

**Note:** The application and performance property values above are typical for the material, but not intended for use in specification criteria because of variations in testing methods, conditions and configurations.

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## Surface preparation

It is recommended that plastic surfaces be abraded with 220 grit or finer sandpaper; glass surfaces should be cleaned with Cerium Oxide polish.

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.

After the surface has been cleaned, apply PR-1861 Adhesion Promoter with a clean brush or a gauze pad. Care must be taken to obtain a uniform thin coat. At standard temperature, allow the adhesion promoter to dry 30 minutes. It is not recommended to apply adhesion promoter below 45 °F (7 °C). The sealant must be applied within 8 hours of the application of the adhesion promoter. If this time is exceeded, the surface should be recleaned and the adhesion promoter reapplied. Do not use adhesion promoter if it contains particles or precipitate.

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-1425CF Class B is supplied in SEMKIT® cartridges.

## Mixing Instructions

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 the kit together taking care to avoid leaving unmixed areas around the sides or bottom of the mixing container.

## Storage life

The storage life of PR-1425CF Class B is at least 9 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 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).**

*Chromium is not intentionally added in the formulation of this product. PPG's "chrome free" statement is based on our knowledge of the product formulation.



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PRC-DeSoto International, Inc.
12780 San Fernando Road
Sylmar, CA 91342
Telephone (818) 362-6711
Toll Free (800) AEROMIX
www.ppgaerospace.com

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