

## PR-2225 Class B high temperature electrically conductive sealant

### Description

PR-2225 Class B is an electrically conductive, corrosion inhibitive sealant. It has a service temperature range from -65°F (-54°C) to 300°F (149°C), with intermittent excursions up to 400°F (204°C). The cured sealant provides excellent electrical conductivity and EMI/RFI shielding. This material acts as an effective barrier against the common causes of corrosion on aluminum alloys or between dissimilar metals.

PR-2225 Class B is a two part, nickel filled, condensation cured silicone 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 and is compatible with polysulfide sealants.

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

### Application properties (typical)

Color	
Part A	White
Part B	Olive
Mixed	Olive
Mixing ratio	Part A:Part B
By weight	4:100
Base viscosity	
(Brookfield #7 @ 2 rpm),	
Poise (Pa-s)	15,000 (1500)

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

	Application life (hours)	Tack free time (hours)	Cure time to 40 A Durometer (hours)
B-1	1	<4	24

### Performance properties (typical)

Cured specific gravity	2.20
Nonvolatile content, %	95
Ultimate cure hardness, Durometer A	68
Shear strength, psi (KPa)	
Standard cure, 7 days @ 77°F (25°C), 50% RH	90 (620)
Tensile strength, psi (KPa)	
Standard cure, 7 days @ 77°F (25°C), 50% RH	220 (1517)
30 minutes @ 425°F (218°C)	210 (1448)
30 minutes @ 485°F (252°C)	195 (1344)
10 minutes @ 540°F (282°C)	166 (1144)
Elongation, %	
Standard cure, 14 days @ 77°F (25°C), 50% RH	60
30 minutes @ 425°F (218°C)	65
30 minutes @ 485°F (252°C)	72
10 minutes @ 540°F (282°C)	77
Electrical contact resistance, ohms	
Standard cure, 7 days @ 77°F (25°C), 50% RH	0.04
Volume/Bulk resistivity (Alessi four point probe), ohm-cm	
Standard cure, 7 days @ 77°F (25°C), 50% RH	0.10
Resistance to other fluids - Excellent resistance to water, alcohols, petroleum-base and synthetic lubricating oils, and petroleum-base hydraulic fluids.	
Corrosion resistance - No corrosion or significant change of conductivity after 168 hours salt spray.	
Thermal stability - No blistering or cracking after environmental conditioning. Hardness retained within 15 Durometer A points.	
Low temperature brittleness @ -65°F (-54°C) - No cracking or fractures.	

**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.

# **PR-2225 Class B high temperature electrically conductive sealant**

## **Surface preparation**

Immediately before applying sealant to 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 the appropriate solvents and 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.

## **Mixing instructions**

PR-2225 Class B is supplied in a Semkit® package. See the container for specific mixing instructions. The mix ratio is very critical.

## **Storage life**

The storage life of PR-2225 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 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.**

**For sales and ordering information call 775-323-7542**

**Semkit is a trademark of PRC-DeSoto International, Inc., registered with the U.S. Patent Office.**

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.