

PR-1910, high temperature sealant

Description

PR-1910 is a high temperature silicone sealant. It has a service temperature range of -75°C (-103°F) to 375°C (707°F) with intermittent excursions up to a range of 1100°C (2012°F) to 2800°C (5072°F). The cured sealant does not flow from vertical or overhead surfaces and has outstanding resistance to aging, ozone and humidity.

PR-1910 is a two-part, silicone, liquid polymer compound. The mixed compound is a thixotropic paste which can be readily applied by spatula or extrusion gun. The material cures at room temperature to form a resilient sealant that gives excellent adhesion to common aircraft substrates when used with primer JFP-7010.

Application properties (typical)

| | | |
|---|--|---------------|
| Colour | | |
| Part A | | Green |
| Part B | | Red |
| Mixed | | Red |
| Mix Ratio Part A: Part B by weight | | 10:100 |
| Base viscosity (Brookfield #7@2rpm) Pa.s, (poise) | | 1400, (14000) |

Application life and cure time at 23°C (73°F), 50% RH

| | Application life (hours) | Tack free time (hours) |
|-----------|--------------------------------|------------------------------|
| PR 1910-2 | 1/2 | 3 |
| PR 1910-4 | 2 | 16 |

Cure Options:

For use at 150°C (302°F):

24h at 23°C (73°F) or 6h at 60°C (140°F)

For use at 230°C (446°F):

Cure as above + 2 weeks at 23°C (73°F), or
1h at 150°C (302°F) + 4h at 200°C (392°F)

For use at 375°C (707°F):

Cure as above, but with 2h steps of 30°C (86°F) until
the desired temperature is reached.

Performance properties (typical)

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

| | |
|---|----------|
| Cured specific gravity | 1.50 |
| Non-volatile content, % | 98 |
| Ultimate cure hardness, Shore A cured at 120°C (248°F) cured at 135°C (275°F) | 55 45 |
| Peel Strength*, N/mm, 100% cohesive failure No exposure Aluminium (alclad 2024) | 700 |
| Shear strength*, MPa, 100% cohesive failure No exposure Aluminium (alclad 2024) | 2.4 |
| *Primed with JFP-7010 | |
| Tensile Strength, MPa Initial 14 days/23 °C | 2.5 |
| Elongation, % Initial 14 days/23 °C | 75 |

Resistance to fluids: excellent resistance to SKYDROL® and ozone. Low resistance to fuels.

Low-temperature flexibility @ -75°C (-103°F) – no cracking, checking or loss of adhesion.

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. (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.

PR-1910, high temperature sealant

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.

To obtain maximum adhesion, after the surface has been cleaned, apply JFP-7010 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 for 1 hour. At lower temperature allow a proportionally longer time to dry. The sealant must be applied within 24 hours of the application of the adhesion promoter. If this time is exceeded, the surface should be re-cleaned and the adhesion promoter re-applied. Do not use the 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.

Mixing instructions

PR-1910 is supplied in a two-part kit. Mix according to 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.

CAUTION: Do not mix accelerator with the base until ready to use.

Storage life

The storage life of PR-1910 is 120 days at -20°C (-4°F), 75 days at 0°C (32°F), 45 days at 20°C (68°F), or 10 days at 50°C (122°F) when stored in original, unopened containers. During storage, slight variations in the application characteristics may occur. This does not affect either the overall application properties or the final performance properties of the product.

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).**

Skydrol is a registered trademark of Solutia

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.

Printed in the U.S.A.

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

Issue Date: 06/19
Supersedes: New
Lit: 4670