

PRC Rapid Seal® 902

Description

PRC RAPID SEAL® 902 is a rapid-cure, low-odor, high-performance sealant. It has a service temperature range from -65 °F (-54 °C) to 302 °F (150 °C), with intermittent excursions up to 360 °F (182 °C). This material is designed for application by brush for use in industrial chemical storage tanks and other oil and gas applications. The cured sealant maintains excellent elastomeric properties after prolonged exposure to various types of fuels.

PRC Rapid Seal 902 is a two-part, epoxy-cured PERMAPOL® P-3.1 polythioether compound. The uncured material is suitable for application by brush in thicknesses up to 25 mils. It cures at room temperature to form a resilient sealant having excellent adhesion to common metallic substrates.

Application properties (typical)

Tested at 77°F (25°C), 50% RH

Color

Part A	Black
Part B	White
Mixed	Gray

Mixing ratio Part A:Part B

By weight 10:100

Base viscosity

(Brookfield #6 @ 10 rpm),
Poise (Pa-s) 350 (35)

Application time, minimum 2 hours

Tack-free time 12 hours

Cure time to 35 durometer A 16 hours

Non-volatile content 90%

Performance properties (typical)

Cured 14 days @ 77°F (25°C), 50% RH

Cured specific gravity 1.49

Final cure hardness, Durometer A 52

Peel strength, pli (N/25 mm), 100% cohesion

Fuel immersion, 7 days @ 140°F (60°C)

Stainless steel*	36 (160)
Titanium*	35 (156)
Alclad aluminum*	35 (156)

3% NaCl (aq) /fuel immersion, 7 days @ 140°F (60°C)

Stainless steel* 38 (169)

Titanium*	36 (158)
Alclad aluminum*	37 (164)

*substrates primed with RS 748 adhesion promoter

Tensile strength, psi (KPa) and elongation (%)

Standard cure, 14 days @ 77°F (25°C), 50% RH
497 (3429) 450%

7-day fuel immersion @ 140°F (60°C)

319 (2201) 380%

Low-temperature flexibility @ -65°F (-54°C)

No cracking, checking, or loss of adhesion

Resistance to hydrocarbons,

7-day fuel immersion @ 140°F (60°C)
Weight loss, % 3.55

Flexibility

No cracks after being bent 180 degrees around a 0.125 inch (3.18 mm) mandrel.

Repairability to itself

Excellent to both freshly cured as well as fuel-aged and abraded fillets

Resistance to other fluids

Excellent resistance to water, alcohols, petroleum-based and synthetic lubricating oils, and petroleum-based hydraulic fluids.

Thermal rupture resistance

Retains pressure of 10 psi with only negligible deformation, both before and after fuel immersion

Corrosion resistance

No corrosion, adhesion loss, softening, or blistering after 20-day immersion in 3% NaCl (aq) /fuel immersion @ 140°F (60°C)

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 or to prime substrates, the surfaces should be cleaned well with solvents to remove dirt and grime. 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

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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.

Concrete surfaces need to be sanded or mechanically abraded to obtain a rough surface profile approximately equal to #60 grit sandpaper. All dust and dirt should be removed by vacuum and/or brushing the surface before sealant application.

Joints to be sealed with *PRC Rapid Seal 902* should have a backer rod installed to control sealant depth to match typical joint design guidelines. Sealant should be tooled after application to ensure good contact of the sealant with the sides of the joint.

Packing options

PRC Rapid Seal 902 is supplied in a two-part SEMKIT® package. See container for sealant mixing instructions.

Storage life

The storage life of *PRC Rapid Seal 902* is at least 9 months when stored at temperatures between 60 °F (15 °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).

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