PR-1773 Class A, chromate-free corrosion inhibitive sealant, low adhesion

Description

PR-1773 Class A is a low adhesion, chromate-free, corrosion inhibitive sealant. It has a service temperature range of -55°C (-67°F) to 121°C (250°F) with intermittent excursions up to 149°C (300°F). The material is designed for use as an access door sealant and can also be used to protect electrical wires, terminal and equipment against fuel, moisture, dirt and short circuits.

PR-1773 Class A is a two-part manganese dioxide cured, polysulfide compound characterised by its low adhesion properties. The uncured material is of fluid consistency suitable for application via brush. Once applied around fasteners, the material will not drip or flow from vertical or overhead surfaces.

*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.

Application properties (typical)

Colour	
Part A	Black
Part B	Red
Mixed	Dark red
Mix Ratio by weight	Part A: Part B 10:100
Base viscosity, (Brookfield #7@2rpm) Pa.s, (poise)	20-65, (200-650)

Slump/vertical flow, mm

	Initial	20 minutes
A-2	1	5

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

	Application life (hours)	Tack free time (hours)	Time to 30 shore A* (hours)
A-2	2	12	48

*Instantaneous hardness measurement

Performance properties (typical)

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

Cured specific gravity	1.55
Non-volatile content, %	84
Ultimate cure hardness, Shore A	50
Peel Strength, N/mm, 100% cohesive failure	
No exposure	
Aluminium (alclad 2024)	0.2
Stainless steel	0.1
Titanium	0.1
PU 66 abraded	0.3
7 days in B fluid at 60°C	
Aluminium (alclad 2024)	0.1
Stainless steel	0.1
Titanium	0.1
PU 66 abraded	0.3
Tensile Strength, MPa	
Initial 14 days/23°C	1.5
Elongation, %	
Initial 14 days/23°C	240

Resistance to fluids: excellent resistance to water, alcohols, synthetic and petroleum-based lubricating oils, and petroleum-based hydraulic fluids.

Corrosion resistance: No sign of corrosion and sealant deterioration after:

- Salt spray method/ 5000 hours
- Galvanic cell method/ 2 weeks
  - Al/Stainless steel couple
  - Al/Titanium couple
  - Al/Cadmium plated steel couple

Resistance to salt and hydrocarbon – no sign of blistering and softening. No evidence of corrosion.

Low-temperature flexibility @ -55°C (-67°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.

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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. 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-1773 Class A 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.

SEMKIT® two-part sealant cartridges – manual mixing:

1. Hold cartridge and pull back dasher rod
2. Inject 1/3 of the accelerator into the base
3. Push dasher rod half way into the cartridge and inject a second 1/3 of accelerator into base
4. Push dasher rod all the way into the cartridge and inject final 1/3 of accelerator into base
5. Mix material, rotate dasher rod 90° in a spiral clockwise motion; with each stroke turn the dasher rod by 90°
6. When two-parts are mixed thoroughly, pull dasher rod back to the neck of the cartridge, grasp cartridge firmly at neck, unscrew dasher rod counter-clockwise and remove.
7. Screw nozzle into cartridge, material is ready for extrusion.

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

Storage life

The storage life of PR-1773 Class A is 6 months when stored in original, unopened containers at temperatures between 4-27°C (39-81°F). 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 (2376649).

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Issue Date: 09/19
Supersedes: New
Lit: 4712