Technical Data Sheet Aerospace Sealants



CA 1000 Mastinox non-chromate corrosion inhibitive jointing compound

Description

CA 1000 is a non-curing, non-chromate corrosion inhibitive compound. It has a service temperature range from -65°F (-54°C) to 240°F (116°C), with intermittent excursions up to 275°F (135°C). This material acts as an effective barrier against the common causes of corrosion on aluminum alloys or between dissimilar metals. The compound remains permanently mastic after prolonged exposure to aircraft fuels, both jet fuel and aviation gas.

CA 1000 is a one-part, epoxy capped, PERMAPOL® polysulfide compound. The material is a thixotropic paste suitable for application by brush or spatula.

The following tests are in accordance with PRC-DeSoto standard and AIMS 04-05-005 specifications.

Application properties (typical)

Application proportion (typical)		
Color	Off white	
Appearance Uniform composition, no lumps or separated material		
Viscosity (Brookfield #7 @ 20 rpm), Poise (Pa-s)	950 (95)	
Squeeze test, inches (mm)	7.1 (180)	

Performance properties (typical)

Specific gravity	1.34	
Nonvolatile content, %	88	
Pigment contents, %	15	
Fineness of grind, Heckman	>5	
Flash point °F (°C),		
[Closed cup (SETA)]	85 °F (29 °C)	
Solubility in water @ 73°F (23 °C)	None	
Exposure to heat @ 104°F (40 °C),		
95% R.H. for 1000 hours		
Aluminum/stainless steel - easy removal,		
no corrosion		
Graphite/aluminum - easy removal, no corrosion		

High temperature flow 20 mils, 24 hours @ 158 °F (70 °C)

Exposure to dry heat @ 239 °F (115 °C) for 1000 hours

Dry	No flow
Immersion in 3.0% NaCl-H2O	No flow
Immersion in AMS 2629 JRF	No flow

Fuel resistance (10 mils), % weight gain,

Easy removal, compound still tacky

7 days @ 120 °F (49 °C)
Immersion in AMS 3629 JRF
Immersion in MIL-H-5606
(Hydraulic fluid)
0.50
Immersion in De-icing fluid
1.20

Corrosion test by galvanic cell method

Immersion in 3.0% NaCI-H2O

Aluminum/titanium couple, 2 weeks - No signs of corrosion or sealant deterioration.

0.45

Aluminum/stainless steel couple, 2 weeks - No signs of corrosion or sealant deterioration.

Aluminum/cadmium plate steel couple, 2 weeks - No signs of corrosion or sealant deterioration.

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 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.

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 15096-000

Packing options

CA 1000 is supplied in 1 part 6 oz. SEMCO® cartridges.

Mixing instructions

CA 1000 is supplied in a 1 part 6 oz. Semco cartridge. Mixing is not required.

Storage life

The storage life of CA 1000 is at least 12 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 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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