

TECHNICAL INFORMATION

WS-8020RC Class A High Temperature Resistant Fuel Tank and Fuselage Sealant

PRODUCT DESCRIPTION

WS-8020RC Class A is two component manganese dioxide cured polysulfide sealant. This product is a low viscosity sealant designed to be brush applied to seal fasteners throughout the aircraft. The cured sealant has excellent fuel resistance as well as excellent sealing characteristics at temperatures ranging from -65°F (54°C) to 250°F (121°C), including intermittent exposure up to 360°F (182°C).

WS-8020RC Class A exhibits excellent elastomeric properties and retention after prolonged exposure to jet fuel and aviation gasoline

SPECIFICATIONS:

- AMS-S-8802 Class A (Qualified)

APPLICATION PROPERTIES

Typical @ 77°F (25°C) 50%RH
 Base Viscosity Poise (pa-s), 300 (30)
 Brookfield #6 spindle @ 10 rpm

Color

Part A Black
 Part B White
 Mixed Dark gray

Mix Ratio

by weight 100 parts base to 12 parts
 accelerator
 by volume 100 parts base to 9.43 parts
 accelerator

Cure Profile:

| | RC vs. Standard | | | |
|--------------------------------|-----------------|-----|-------|-----|
| | A-1/2 | A-2 | A-1/2 | A-2 |
| Application Life (hrs.) | 1/2 | 2 | 1/2 | 2 |
| Tack free time (hrs.) | <8 | <10 | <10 | <40 |
| Cure time to 30 Shore A (hrs.) | <12 | <15 | <40 | <72 |

PERFORMANCE PROPERTIES

Typical 14 days @ 77°F (25°C), 50% RH
 (Tested per AMS-3276)

Color Dark gray
 Specific Gravity 1.36
 Final hardness 50 shore A
 Nonvolatile content 87%

Low temperature flexibility @ -65°F (-54°C) No cracking or adhesion loss
 Corrosion resistance No corrosion or loss of adhesion after 12 days immersion in AMS2629 JRF and 3% salt water 50/50 + 60 hours @ 160°F (71°C) + 6 hours @ 180°F (82°C).
 Thermal rupture resistance Negligible deformation at 10 psi before and after fuel exposure in AMS2629 JRF.
 Repairability Excellent to itself and other qualified products freshly cured and aged.

Resistance to AMS2629 JRF hydrocarbons @ 7days
 140°F (60°C) exposure:
 Weight loss <6%
 Swell 6.5%

Excellent resistance to other fluids such as: water, alcohols, synthetic oils and petroleum based hydraulic fluids.

Fungus resistance Non-nutrient
 Shaving and Sanding Good
 Paintability Good Adhesion

Peel Strength

pli, 100% cohesion, 7 days immersion @ 140°F (60°C) in AMS2629 JRF and AMS2629 JRF/3% saltwater:

| Substrate | Conditioning | Adhesion* |
|---------------------|--------------|-----------|
| Mil-C-5541 | JRF | 44 |
| (Alodine aluminum) | JRF/SW | 45/52 |
| AMS 2471 | JRF | 45 |
| (Anodized aluminum) | JRF/SW | 44/53 |
| AMS 4901* | JRF | 42 |
| (Titanium) | JRF/SW | 45/55 |
| AMS 5516* | JRF | 42 |
| (Stainless steel) | JRF/SW | 44/56 |
| AMS-C-27725 | JRF | 41 |
| (Fuel tank coating) | JRF/SW | 43/53 |
| AS 4/3501-6 | JRF | 41 |
| (Graphite epoxy) | JRF/SW | 43/53 |
| IM7/5250-4 | JRF | 45 |
| (BMI) | JRF/SW | 42/56 |

Peel Strength (Cont.)

MIL-PRF-23377 DI water 43
(Primer coating)
Specification requirements- 20pli/100% cohesion
*PR-148 Adhesion Promoter Used

SURFACE PREPARATION

Surfaces must be cleaned with solvent. Use appropriate solvent and cloth in accordance with AMS-S-8802 specification.

PACKAGING

WS-8020RC Class A is supplied in two part kit containers and cartridges for the purpose of facilitating mixing and application.

MIXING INSTRUCTIONS

Mix the two part kits and two part sealant cartridges as indicated on the container label. Do not forget to mix Part A and Part B of the two part kits to uniformity before blending them. Avoid leaving unmixed material around the side and bottom of the mixing container.

STORAGE LIFE

The shelf life of WS-8020RC Class A is 9 months from the date of shipment when stored below 80°F (27°C) in the original unopened container. The storage life of premixed and frozen material is a minimum of 30 days at temperatures below -40°F (-40°C).

HEALTH PRECAUTIONS

This product is considered to be safe when handled with proper care. Read the MSDS (Material Safety Data Sheet) for information on handling precautions, hazardous ingredients and first aid procedures. After use of his product, always wash your hands before eating or smoking. If you need an MSDS, this is always available on request. In case of overexposure, be sure to obtain medical care.

Keep away from children. This product is intended for industrial use only.

ADDITIONAL INFORMATION

Visit our web site at:

www.royaladhesives.com

Contact us at:

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NOTE

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