

technical data

PR-2911

PR-2911 Fuel Resistant Sealant

Description

PR-2911 is a sprayable aircraft integral fuel tank sealant designed to be used over PR-2904 primer. It has a service temperature range from -65°F (-54°C) to 250°F (121°C), with intermittent excursions up to 350°F (171°C). This material is especially formulated as an elastomeric sealant for aircraft integral fuel tanks and fuel cell cavities. The cured sealant maintains excellent elastomeric properties and high elongation after prolonged exposure to both jet fuel and aviation gas. PR-2911 is a two-part, polythioether polyurethane compound.

The following tests are in accordance with AMS 3279 test methods.

Application properties (typical)

Color		
Part A		Black or white
Part B		Amber
Mixed		Black or white
Mixing ratio		Part A:Part B
By weight		90:100
By Volume		100:100
Base viscosity, Poise (Pa-s)		
Part A		2
(Brookfield #2 @ 10 rpm)		
Part B		350 (35)
(Brookfield #5 @ 10rpm)		
Application life and cure time @ 77°F (25°C), 50% RH		
	Application life (hours)	Tack free time (hours)
	2	<6
		Cure time to 30 A Durometer (hours)
		<24

Performance properties (typical)

Cured 14 days @ 77°F (25°C), 50% RH	
Specific Gravity	1.20
Nonvolatile content, %	54
Ultimate Cure Hardness, Durometer A	67
Coverage (dry film thickness) ft ² /mil/gal	753
Peel strength, pli (N/25 mm), 100% cohesion*	
AMS 2629 Type 1 Fuel immersion, 7 days @ 140°F (60°C)	
AMS 2417 (Anodized Aluminum)	46 (202)

AMS 4901 (Titanium)	48 (211)
AMS-C-27725 (IFT Coating)	48 (211)
3% NaCl-H ₂ O immersion with AMS 2629 Type 1 Fuel immersion , 7 days @ 140°F (60°C)	
AMS 2417 (Anodized Aluminum)	50 (220)
AMS 4901 (Titanium)	51 (224)
AMS-C-27725 (IFT Coating)	51 (224)
3% NaCl-H ₂ O immersion with AMS 2629 Type 1 Fuel immersion , 100 hrs @ 140°F (60°C) + 10 hrs @ 160°F (71°C) + 1 hr 180°F (82°C)	
AMS 2417 (Anodized Aluminum)	38 (166)
AMS 4901(Titanium)	44 (193)
AMS-C-27725 (IFT Coating)	40 (175)
*Applied over PR-2904 Primer	
Repairability, pli (n/25mm), 100% cohesion	
PR-2911	35 (154)
PR-1750 B-2*	20 (88)
PR-1828 B-1/2*	17 (75)
PR-1440 B-2*	10 (44)
AMS 2629 Type 1 Fuel immersion, 72 hrs at 140°F(60°C), 72 hrs at 120°F(49°C) in air and 7 days at 250°F(121°C) in air.	
PR-2911	26 (114)
PR-1750 B-2*	11 (49)
PR-1828 B-1/2*	9 (40)
PR-1440 B-2*	11 (49)
*Primed with PR-187 Adhesion Promoter	
Tensile strength, psi (KPa)	
Standard cure, 14 days @ 77°F (25°C), 50% RH	2,000 (13,800)
14 days immersion in AMS 2629 Type 1 Fuel @ 140°F (60°C)	1,200 (8,280)
8 hours at 350°F (177°C)	200 (1,380)
3 days at 140°F(60°C) in AMS 2629 Type 1 Fuel + 3 days air dry at 120°F(49°C) + 7 days air dry at 250°F(121°C)	1,050 (7,245)
Standard heat cycle + 7 days in AMS 2629 Type 1 Fuel at 140°F(60°C) Type 1 Fuel @ 140°F (60°C)	250 (1,724)
Elongation, %	
Standard cure, 14 days @ 77°F (25°C), 50% RH	950
14 days immersion in AMS 2629 Type 1 Fuel @ 140°F (60°C)	975
8 hours at 350°F (177°C)	130

PR-2911 Fuel Resistant Sealant

(Elongation Continued)

3 days at 140°F(60°C) in AMS 2629 Type 1 Fuel + 3 days air dry at 120°F(49°C) + 7 days air dry at 250°F(121°C)	500
Standard heat cycle + 7 days in AMS 2629 Type 1 Fuel at 140°F(60°C) Type 1 Fuel @ 140°F (60°C)	210
Low temperature flexibility @ -65°F (-54°C) No cracking, checking or loss of adhesion.	
Resistance to hydrocarbons - 7 days @ 140°F (60°C) immersed in JRF Weight loss, %	3.4
Flexibility - No cracks after bending 180 degrees over 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-base and synthetic lubricating oils, and petroleum-base hydraulic fluids.	
Shaving and sanding - No rolling or tearing	

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

PR-2911 should be applied over properly prepared PR-2904. Please see the Technical Data Sheet for PR-2904 for more information.

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-2911 is supplied in two-part premeasured units. If unites are to be proportioned, mix in the ratio of 90 parts A to 100 parts B by weight. Thoroughly mix both parts together taking care to avoid having unmixed areas around the sides or bottom of the mixing container. Purge unused, non-mixed material with dry nitrogen and reseal immediately.

Application Method

Excellent results are obtained by spray application (check local EPA requirements regarding the use of spray equipment). Standard airless spray methods using PR-2911 produce a somewhat smoother finish. For small applications, standard pressure pot spray equipment may be used.

For spray application, the PR-2911 should be built up by successive criss-crossing passes of the gun instead of a single heavy pass. This technique will minimize sagging and holidays and results in a smoother cured texture and appearance.

Packaging Options

PR-2911 is supplied in two part can kits. See container for mixing instructions.

Storage life

The storage life of PR-2911 Class B is at least 9 months when stored at temperatures between 40°F (4°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 Material Safety Data Sheet (MSDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An MSDS 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.bergdahl.com**

**For sales and ordering information call
775-323-7542.**

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.