

## PR-1791A fuel tank sealant

### Description

PR-1791A is a brushing sealant for continuous use over a temperature range of -55°C to +230°C and for short periods up to 315°C, with outstanding resistance to aircraft fuels and lubricating oils and resistance to degradation by phosphate ester type hydraulic oils.

PR-1791A is an amine cured sealant based on Viton\*. The uncured material is a thick liquid suitable for application by brush or roller. The cured sealant maintains excellent elastomeric properties after prolonged exposure to aircraft fuels.

\*Viton is the trade mark of E I Du Pont de Nemours Co.

### Application properties (typical)

Colour	
Part A	Clear
Part B	Black
Mixed	Black
Mixing ratio	
Part B:Part A, by weight	20:1
Viscosity of base compound	
Pa-s (poise), (Brookfield # 6 @ 10 rpm)	76 (760)
Application life and cure time @ 25°C, 50% RH	
Application life	6
Cure time to 35 Durometer A	48
Non-volatile content, % by weight	66

### Performance properties (typical)

Cured 14 days @ 25°C, 50% RH	
Hardness, Durometer A	70
Mixed S.G.	1.73
Peel strength, N/25mm (pli), 100% cohesion, with adhesion promoter PR-1735	
Dry	
Stainless steel	155 (35)
Titanium	145 (33)
Epoxy primer	140 (32)
Polyurethane topcoat	140 (32)
Type III fuel (168 hours @ 60°C)	
Stainless steel	135 (30)
Titanium	130 (29)
Epoxy primer	125 (28)
Polyurethane topcoat	120 (27)
3% NaCl solution (168 hours @ 60°C)	
Stainless steel	150 (34)
Titanium	145 (33)
Epoxy primer	135 (30)
Polyurethane topcoat	135 (30)
Tensile strength, MPa (psi)	
Standard cure	6.85
(1000)	
Shear strength, MPa (psi)	
24 hours @ 25°C	0.17 (25)
72 hours @ 25°C	1.03 (150)
48 hours @ 25°C + 24 hours @ 50°C	2.74 (400)
Elongation, % at break	
Standard cure	200
Low temperature flexibility - no cracking, checking or loss of adhesion	

**Note:** The application and performance property values are typical for the material but are 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 metallic, chemically treated, or painted substrates, the surfaces should be cleaned with solvents to remove contamination such as dirt, grease, and/or processing lubricants.

A progressive cleaning procedure should be employed using the appropriate solvents and new lint-free cloth (reclaimed solvents or tissue paper should not be used). Always pour the solvent on to 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 to the substrate.

To obtain adhesion to metals, glass and various plastic surfaces a primer is required. The recommended primer is PR-1735

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.

## **Storage life**

The storage life of PR-1791A is six months when stored at temperatures between 5°C and 25°C in the original unopened containers.

## **Health precautions**

This product is safe to use and apply when recommended precautions are observed. Before using this product read and understand the Material Safety Data Sheet 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 exposure.

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.