



PR 1770 Class B

HIGH STRENGTH FUEL TANK SEALANT

USE

A filleting compound for sealing integral fuel tank and pressurized cabins.

PR 1770 class B was especially developed for use over a temperature range of -55°C to 120°C up to 180°C and with outstanding resistance to aircraft fuels (aviation gasoline or jet fuel) and petroleum base lubricating oils.

DESCRIPTION

PR 1770 class B is a two-part polysulfide Permapol P-5 liquid polymer. The mixed compound is a thixotropic paste, readily applied by extrusion or injection gun, which does not flow from vertical or overhead surfaces. Sealant has excellent adhesion to aluminium, titanium, stainless steel, and other metals.

SPECIFICATION

The following tests have been run in accordance with the requirements of :

- SP-J-513-M-0020 Specifications.

PURCHASING

PRODUCT DESIGNATION

When ordering this product, designate PR number, class letter, and dash number as follows :

PR 1770 B-1/2 (application life : 1/2 h.)

PR 1770 B-2 (application life : 2 h.)

STANDARD PACKAGING

DESIGNATION

KITS :

	<u>Base Volume</u>	<u>Container</u>	<u>Number of Kits per case</u>
KIT n° 25	0,25 liter	1/2 l. Can	12
KIT n° 50	0,50 liter	1 liter Can	12
KIT n° 100	1,00 liter	2 liters Can	6

SEMKITS :

	<u>Total Content</u>	<u>Number per Case</u>
655	55 cc	24
654	100 cc	24

LE JOINT FRANCAIS SEALANTS ADHESIVES & COATINGS

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[http : \www.ljfm.com](http://www.ljfm.com)



HUTCHINSON Group



APPLICATION PROPERTIES (typical)

- Couleur Base White
Accelerator Black

- Mixing ratio
Part A / Part B by weight 10 : 1

- Nonvolatile content
(mixed compound) 98 %

- **Viscosity**
(Brookfield # 7 @ 10 rpm) 1400 Pa.s

- Vertical Flow :
Initial 2 mm

- Application Life and Cure Time

	Application Life (hours)	Tack Free Time (hours)	To 30 Shore A (hours)
B 1/2	1/2	10	24
B 2	2	24	48

PERFORMANCE PROPERTIES (typical)

- Color Dark grey
- Specific Gravity 1,58
- Hardness, Shore A 55
- Low temperature flexibility - 55° C

- Adhesion - Peel strength (N/mm)**Cure 14 days.**

		<u>Cohesion</u>
Alclad 2024 + chromic acid anodising	12 N/mm	100 %
Alclad 2024 + chromic acid anodising + PU primer	11 N/mm	100 %
Carbone Fiber + SP-J 513-M 0021 + PU primer.	11 N/mm	100%

**Exposure in NATO F 34.
42 days at 95°C.**

Alclad 2024 + chromic acid anodising + PU primer.	7 N/mm	100 %
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**Exposure in NATO F 34 / salt water.
42 days at 95°C.**

Alclad 2024 + chromic acid anodising + PU primer.	9,5 N/mm	100 %
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- Tensile strength and elongation

	<u>Tensile Strength</u> (MPa)	<u>Elongation</u> (%)
- Cure 14 days	3,5 MPa	300 %
- 7 days at 135°C	4,0 MPa	65 %
- 1 day at 155°C	4,0 MPa	110 %
- 1 hour at 180°C	3,3 MPa	300 %

- Resistance to other Fluids :

Excellent resistance to water, alcohols, petroleum-base and synthetic lubricating oils, and petroleum-base hydraulic fluids.

- Réparability :

Excellent to both fresh sealant and heat/fuel-abraded fillets

- Fungus Resistance :

Non nutrient

In harsh environment, optimum adhesion can be obtained by the use of **PR 148 AF** primer.

NOTE : The above 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.

SURFACE PREPARATION

To obtain good adhesion to metallic surface, part shall be cleaned with solvents to remove dirt, grease, and processing lubricants used in manufacturing.

Wash one small area at a time, then dry with a clean cloth before solvent evaporates to prevent redeposition of oil, wax or other surface contaminants. To maintain a clean solvent supply, always pour the solvent on the washing cloth.

MIXING INSTRUCTIONS

Proper mixing and correct proportions are extremely important if optimum results are to be obtained. Mixing by experienced personnel at a central location is recommended.

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

1° Thoroughly stir accelerator in its container until an even consistency is obtained.

2° Thoroughly stir base compound in its container until an even consistency is obtained.

3° Slowly stir the accelerator into the base compound and thoroughly mix approximately 7 to 10 minutes. Be sure to scrape the sides and bottom of the container in order to include all the compound in the mixture and to assure uniform blending. Scrape mixing paddle periodically to remove unmixed compound. Slow mixing by hand is recommended.

FRACTIONAL USE OF UNIT :

When it is desired to use only part of the kit, after homogenization, remove the required quantity.

(§ APPLICATION PROPERTIES).

SEMKIT TWO-PART SEALANT CARTRIDGES

1° Wear safety glasses.

2° Hold cartridge and pull back dasher rod one fourth.

3° Pull back the dasher rod as injecting as proportionally as possible the contents accelerator into the base.

4° Mix material, rotate dasher rod 90° in a spiral clockwise motion; with each stroke turn the dasher rod 90°.

5° When two-parts are mixed thoroughly, pull dasher rod back to the neck of cartridge, grasp cartridge firmly at neck, unscrew dasher rod counterclockwise and remove.

6° Screw nozzle into cartridge, material is ready for extrusion.

For all informations, consult the
Engineering Services of
LE JOINT FRANCAIS.

APPLICATION INSTRUCTIONS

Application life is the period of time that the mixed compound remains at a consistency suitable for application with injection or extrusion guns. Application life is always based on standard conditions at 23° C and 50 % relative humidity. For every 5° C rise in temperature, application life is reduced approximately by half, and for every 5° C it is approximately doubled. High humidity at the time of mixing shortens application life.

Apply the sealant with an extrusion gun equipped with 3 to 6 mm tip. Hold gun nearly perpendicular so that extruded sealant will be forced into the lip of seam.

On most application, the fillet should be 3 to 5 mm thick, but heavier fillets can be applied in a single operation, if necessary.

CURING

The length of the cure depends on the ambient temperature and relative humidity. The temperature/time relationship is approximately the same for curing as it is for application life. Low humidities may extend the cure several times. Cure may be hastened by applying heat up to 55° C.

Although **PR 1770 B** develops a high state of cure in 14 days at 25° C.

CLEANING EQUIPEMENT

Equipment should be cleaned immediately after use with methylethylketone. Cured material may be removed with commercial product.

STORAGE LIFE

The storage life of **PR 1770 B** is 9 months when stored in the original, unopened containers at temperature below 25°C.

HEALTH PRECAUTIONS

PR 1770 B is a safe material to handle when reasonable care is observed. Ordinary hygienic principles, such as washing the compound from hands before eating or smoking, should be observed. Avoid prolonged contact with skin, contact with open breaks in the skin, and ingestion. In case of contact with skin, wipe off excess then wash with soap and water. Obtain medical attention in case of extreme exposure or ingestion.

For additional health and safety information consult a
Material Safety Data Sheet
which is available upon request

GUARANTEED

We guarantee all our products against faulty materials or preparation. Our sole responsibility shall be to replace, free of charge, those products which prove to be defective, the user being entitled to no indemnity for any reason whatsoever. All recommendations contained herein as to the choice of materials or of certain methods of operation are of an informative character and are based on tests and experiments we believe to be reliable and correct, but accuracy and completeness of such tests are not guaranteed and are not to be construed as a warranty, either express, or implied.

Neither our company, nor any of its collaborators shall be liable to the user for any injury, loss or damage directly or indirectly resulting from the use of, or inability to use, the products, which does not comply with the application instructions as specified in our information manual.

Recommendations or statements other than those contained in a written document signed by an officer of our company shall not be binding upon the company.

