Aerospace

Edition 10/2011

PR 1782 Class B

Fuel tank sealant
Low density
Fast Cure

USE

A filleting compound **low gravity** and **fast cure** for sealing integral fuel tank and pressurized cabins.
PR 1782 B was especially developed for use over a temperature range of -55°C to + 120°C and with outstanding resistance to aircraft fuels (aviation gasoline or jet fuel).

DESCRIPTION

PR 1782 B is a two-part sealant, based on polysulfide liquid polymers. 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

AIMS 04-05-001
04-05-012
04-05-014
04-05-015

PRODUCT DESIGNATION

PR 1782 B - 1/2
(Application life : 30 minutes)
PR 1782 B - 1
(Application life : 1 hour)
PR 1782 B - 2
(Application life : 2 hours)
PR 1782 B - 4
(Application life : 4 hours)

PACKAGING

KITS :

	Base Volume	Number of kits/case
KIT 10	100 ml	12
KIT 25	250 ml	12
KIT 50	500 ml	12

SEMKITS :

	Total Content	Number of kits/case
Semkit 655	55 ml	24
Semkit 654	100 ml	24
Semkit 654 B	130 ml	24

*Other packaging available in Kit, semkit and drums.

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HUTCHINSON® aerospace

APPLICATION PROPERTIES (typical)

(23°C / 50% HR)

Color		
Base	Blue	
Accelerator	Dark Grey	
Mixing ratio		
Base / Accelerator	100 : 12	by weight
	100 : 7	by volume
Nonvolatile content		
(mixed compound)	> = 90%	
Viscosity		
(Brookfield 7 @ 2 rpm)	800 - 1200 Pa.s	
Vertical Flow :		
Initial	< = 3 mm	
50 mn	< = 3 mm	
90 mn	< = 3 mm	

Application Life and Cure Time

	Application Life (hours)	Tack Free Time (hours)	To 30 Shore A* (hours)
B 1/2	1/2	5	7
B 1	1	6	8
B 2	2	7	10
B 4	4	12	24

*Instantaneous hardness mesurement.

PERFORMANCE PROPERTIES (typical)

14 days cure at 23°C / 50% HR.

Color	Grey
Specific Gravity	< = 1.15
Hardness, Shore A	45
Low temperature flexibility	- 55° C
Fungus Resistance	Non-nutrient

Adhesion - Peel strength (N/mm)

100% Cohesive

	Initial
Alclad 2024	6
Stainless steel	6
Titanium	6
P 60 A	6
F 70 A	6

Lap shear strength (MPa)

100% Cohesive

	Initial
Alu 2024	1,55 MPa
Stainless steel	1,55 MPa
Titanium	1,55 MPa
P 60 A	1,55 MPa
F 70 A	1,55 MPa

Tensile strength and Elongation

	T.strength	Elongation
Initial 14 d/23°C	1,6 MPa	300 %

Resistance to other Fluids :

Excellent resistance to water, alcohols, petroleum base and synthetic lubrificating oils, and petroleum base hydraulique fluids.

Réparability :

Reparability to itself.

Excellent to both freshly cured as well as fuel aged and abraded fillets , for example PR 1776 B, PR 1771 B, PR 1422 B.

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 aera at a time, then dry with a clean cloth before solvent evaporates to prevent redeposition of oil, wax or other surface contaminents. To maintain a clean solvant 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.

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

1° Thoroughly stir accelerator in its container until an even consistancy is obtained.
2° Thoroughly stir base compound in its container until an even consistancy 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 recommanded.

FRACTIONAL USE OF UNIT :
When it is desired to use only part of the kit, after homogenization, remove the required quantity.

B) SEMKIT

1-Hold cartridge and pull back dasher rod one fourth.
2-Pull back the dasher rod as injecting as proportionnaly as possible the contents accelerator into the base.
3-Mix material, rotate dasher rod 90° in aspiral clockwise motion; with each stroke turn the dasher rod 90°.
4-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.
5-Screw nozzle into cartridge, material is ready for extrusion.

For all informations, contact the Technical Services of
LE JOINT FRANCAIS.

CLEANING EQUIPEMENT

Equipment should be cleaned immediately after use an appropriate sovent. Cured material may be removed with commercial product.

CURING

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

STORAGE LIFE

The storage life of **PR 1782 B** is **6 months** when stored in the original, unopened containers at temperature below 25°C.

HEALTH PRECAUTIONS

PR 1782 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 responsability 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 choise of materials or of certain methods of operation are of an informative character and are based on tests and experiments we belive 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.

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