LJFM
Aerospace

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PR 1782 C

FAYING SURFACE SEALING COMPOUND
FUEL TANK SEALANT
LOW DENSITY

USE

PR 1782 C is a flowable compound, low density for sealing the faying surface of integral fuel tanks and pressurized cabins.
PR 1782 C was especially developed for use over a temperature range of - 55°C + 120°C and will resist aircraft fuels (aviation gasoline or jet fuel).

DESCRIPTION

PR 1782 C is a two-part manganese cured, based on Polysulfide liquid polymers.
The mixed compound is a trowable liquid that may be applied with a brush, trowel or roller and does not flow from vertical or overheadsurfaces after application as a faying surfaces sealant.

SPECIFICATION

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

PRODUCT DESIGNATION

PR 1782 C 1/3	Application time : 20 mn
PR 1782 C 2	Application time : 2 h
PR 1782 C 4	Application time : 4 h
PR 1782 C 12	Application time : 12h
PR 1782 C 24	Application time : 24 h
PR 1782 C 36	Application time : 36 h
PR 1782 C 48	Application time : 48 h
PR 1782 C 70	Application time : 70 h

PACKAGING

KITS :

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

SEMKITS® :

	Mix Volume	Number of semkits/carton
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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APPLICATION PROPERTIES
(Typical)

Color	
Base	Dark beige
Accelerator	Black
Mixing ratio by weight	
Base/accelerator	100 to 10 for all types **(except for C1/3 100 to 12)**
Nonvolatile content (mlixed compound)	> = 87 %
Viscosity Brookfield #7 @ 10 rpm	100 - 400 Pa.s

Application life and cure time

Type	Application life (hours)	Assembly time (hours)	To 30 Shore A * (hours)
C 1/3	20 mn	20 mn	4h at 23°C
C 2	2h	4h	12h at 23°C
C 4	4h	6h	30h at 23°C
C 12	12h	20h	8 days at 23°C
C 24	24h	80h	20 days at 23°C 24h at 23°C + 12 days at 50°C
C 36	36h	120h	25 days at 23°C 24h at 23°C + 14 days at 50°C
C 48	48h	168h	45 days or 24h at 23°C + 10 days at 60°C
C 70	70h	250h	60 days or 24h at 23°C + 13 days at 60°C

*Instantaneous hardness mesurement

PERFORMANCE PROPERTIES
(Typical)

Color	Dark grey
Specific gravity	< = 1,30
Hardness Shore A	45
Low temperature flexibility	- 55° C

Adhesion - Peel strength (N/mm)
100 % Cohésive

	Initiale
Alclad 2024	5
Stainless steel	5
Titanium	5
P 60 A	5
F 70 A	5

Shear strength (MPa)

	Initiale
Alu 2024	1,5 MPa
Inox	1,5 MPa
Titane	1,5 MPa
P 60 A	1,5 MPa
F 70 A	1,5 MPa

Tensile strength and elongation

	Ultimate Tensile Strength	Ultimate Elongation
Initial	1,5 MPa	250 %

Low temperature flexibility: no visible détérioration and no adhesion loss
Fungus resistance: non nutrient

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

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.
(§ APPLICATION PROPERTIES).

B) 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 proportionnaly as possible the contents accelerator into the base.
4° Mix material, rotate dasher rod 90° in aspiral 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 Technical 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.

CURING

The lenght of the cure depends on the ambient temperatureand 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 60° C.

CLEANING EQUIPEMENT

Equipment should be cleaned immediately after use with methylethylketone. Cured sealant on accessible portions of equipement will peeled off by hand.

STORAGE LIFE

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

HEALTH PRECAUTIONS

PR 1782 C 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.

For additional health **.**and safety information consult a **Material Safety Data Sheet** which is available upon request on www.ljfm.com

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.
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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.