



PR 1828 Class B

FUEL TANK SEALANT RAPID CURING

USE

PR 1828 Class B is a rapid curing, primerless to most common substrates, aircraft integral fuel tank sealant. It has a service temperature range from -60°C to + 150°C, with intermittent use to +215°C.

PR 1828 Class B has excellent low temperature curing characteristics.

The cured sealant maintains excellent elastomeric properties after prolonged exposure to both jet fuel and aviation gas.

DESCRIPTION

PR 1828 Class B is a two-part, chemically curing **Permapol P-3** polythioether polymer based sealant characterized by a rapid cure at low temperature to a fuel resistance elastomer. This material has application temperature as low as +5°C and is unaffected by changes in relative humidity.

The mixed compound is a thixotropic material, which can be readily applied by extrusion or injection gun.

SPECIFICATION

AMS-3277.

PRODUCT DESIGNATION

PR 1828 B - 1/4 LO*

(Application time : 15 minutes)

PR 1828 B - 2 LO*

(Application time : 2 hours)

***LO** : Low Odor

PACKAGING

SEM-KITS :

	Total Content	Number per Case
655	55 cc	24
654	100 cc	24

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APPLICATION PROPERTIES (typical)

CouleurBase	White
Accelerator	Purpul
Mixing ratio	
Base / Accelerator	100 : 12 by weight
Nonvolatile content (mixed compound)	98 %
Viscosity (Brookfield # 7 @ 2 rpm)	1200 Pa.s
Vertical Flow :	
Initial	3 mm

Application Life and Cure Time

Application (hours)	Life Tack Free Time (hours)	To 30 Shore A (hours)	
		à 23°C	à 5°C
1/4	1	3	15
2	10	24	72

PERFORMANCE PROPERTIES (typical)

Color	Beige
Specific Gravity	1,45
Hardness, Shore A	50
Low temperature flexibility	- 65° C

Adhesion - Peel strength (N/mm)

	with Primer PR 1826		
	Initial	JRF	Salt water
Alclad 2024	9	8	8
Stainless steel	10	8	8
Alodine	8	8	9

100% cohesive, after 7 days immersion at 60°C

Tensile strength and elongation

	Tensile strength MPa	Ultimate elongation %
Initial	3	350
2 h at 215°C	1	100
8 h at 180°C	1,4	90

Réparability

For adhesion to polysulfide sealants, PR 186* adhesion promoter must be used.

on PR 1422 B*	6,0 N/mm
on PR 1750 B*	6,5 N/mm
on PR 1826 B	8,5 N/mm
100% cohesive	

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

To obtain good adhesion the surface must be cleaned with an oil-free solvents which will dissolve 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.

After the surface has been cleaned apply **PR 186** Adhesion Promoter with a clean brush or by wiping on with a gauze pad. Care must be taken with either a brush or gauze to obtain a uniform thin coat - one that is thin enough to cover, but not heavy enough to run.

At standard temperature, allow the adhesion promoter to dry 30 minutes. At lower temperature allow a proportionally longer time to dry.

The sealant may be applied up to 8 hours after the application of the adhesion promoter. After 8 hours, the surface should be recleaned and adhesion promoter reapplied. The surface should show a slight gloss adhesion promoter when it is done properly. **PR 186 B** applied over cured **PR 186 B** does not require a coat of adhesion promoter. The appearance of the adhesion promoter can be clear yellow to hazy. The adhesion promoter should not have particles or precipitate in it.

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.

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. Application life is always based on standard conditions at 23° C and 50 % relative humidity. For evry 5°C rise in temperature, application life is reduced approximatety by half, and for evry 5°C it is approximatly 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.

For all informations, consult the [Engeneering Services of LE JOINT FRANCAIS](#).

CURING

PR 1828 B cures rapidly at room temperature and at lower temperatures. The sealant will cure at temperatures as low as +5°C. The cure of PR 1828 is solely dependant upon the temperature. Humidity has no effect on the cure sealant. The cure of

PR 1828 B will be halved or doubled for each 5°C, up or down respectively, from the standard 23°C

CLEANING EQUIPEMENT

Wash equipment with methylethylketone solvent immediatly after use or before sealant cures.

Use commercial stripping compounds to remove cured sealant.

STORAGE LIFE

The storage life of **PR 1828 B** is 9 months when stored in the original, unopened containers at temperature below 25°C.

HEALTH PRECAUTIONS

PR 1828 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.

Use adaaquate ventilation or air-supplied respirators during application. Avoid repeated or prolonged exposure. In case of overexposure, remove affected personnel to fresh air immediatly an obtain medical attention.

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 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.



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