



PS 890

FUEL TANK SEALANT

USE

PS 890 is an aircraft integral fuel tank sealant. It has a service temperature range from -55°C to $+135^{\circ}\text{C}$. The cured sealant maintains excellent elastomeric properties after prolonged exposure to both jet fuel and aviation gas.

DESCRIPTION

PS 890 is a two-part, manganese cured polysulfide compound. It cures at room temperature to form a resilient sealant having excellent adhesion to common aircraft substrates.

SPECIFICATION

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

AMS-S-8802

Standards conditions :

23 +/- 2° C and 50 +/- 5 % RH.

PS 890

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

CLASS A Brushable.
A 1/2 - A 2
CLASSE B Fillet.
B1/2 - B 2- B 4
CLASSE C Roller.

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
KIT n° 150	1,50 liters	2 liters Can	6
KIT n° 300	3,00 liters	4 liters Can	4

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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APPLICATION PROPERTIES (typical)

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PS 890
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	Base Accelerator	Aluminium gray Black <u>Class A</u>	<u>Class B</u>			<u>Classe C</u>	
-Color							
-Mixing ratio (base/accelerator)	By weight	10/1	10/1	10/1	10/1	12,5/1	12,5/1
-Non volatile content (Mixed compound)		88%	94%	94%	94%	92%	92%
-Viscosity Brookfield Brookfield # - @ - rpm		30Pa.s 4 @ 10	100Pa.s 7 @ 2	100Pa.s 7 @ 2	100Pa.s 7 @ 2	200Pa.s 4 @ 10	200Pa.s 4 @ 10
- Application Life 23° C / 50 % RH		<u>1/2</u> <u>2</u>	<u>1/2</u> <u>2</u> <u>4</u>	<u>1/2</u> <u>2</u> <u>4</u>	<u>1/2</u> <u>2</u> <u>4</u>	<u>20</u> <u>80</u>	<u>20</u> <u>80</u>
- Assembly time 23° C / 50 % RH		---	---	---	---	20 h	80 h
-Tack Free Time 23° C / 50 % RH		10h 36 h	10h 24h 36h	10h 24h 36h	10h 24h 36h	96 h	120 h
-To 35 Shore A 23° C / 50 % RH		40h 72 h	30h 72h 96 h	30h 72h 96 h	30h 72h 96 h	14 days	28 days or 1 day / 23°C + 3 days / 50°C.

PERFORMANCE PROPERTIES (typical)

-Color	Gray
-Specific Gravity	1,6
-Hardness, Shore A	50 shore A
-Tensile Strength	2,4 MPa
-Elongation	175%
-Adhesion - Peel strength (N/mm)	
- After 7 days / 60°C in JRF/Nacl	5,35
- After 7 days / 60°C in JRF	6,25
-Shear Strength	<u>Classe C</u>
- Aluminium	1,5 MPa
-Fuel Résistance	
- After 7 days 60°C in JRF	Excellent flexibility Weight loss < 6 %
- Resistance to other Fluids :	
Excellent resistance to water, alcohols, petroleum-base and synthetic lubricating oils, and petroleum-base hydraulic fluids	
- Tensile Strength and Elongation:	
	<u>Tensile Strength</u> <u>Elongation</u> <u>Tensile</u> <u>Elongation</u>
	(MPa) (%) (MPa) (%)
	<u>Classe A</u> <u>Classe B & C</u>
- Initial	2,4 250 2,1 300
- JRF / 7 days / 60°C	1,7 195 --- ---
-JRF / 14 days / 60°C	--- --- 1,35 400
-7 days / 120°C	--- --- 2,40 200
- JRF / 72 hours / 60°C + 7 days / 60°C	--- --- 2,1 250
- 24 hours / 120°C + JRF / 7days / 60°C	--- --- 1,80 200
-Corrosion Resistance after 500 hours / 35°C	Compound gives excellent protection against corrosion caused by galvanic coupling of dissimilar metals.
-Temperature range	- 55° C à + 130° C
-Low Temperature Flexibility	- 55° C
-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.

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.

PS 890 A

Can be applied by brush and may be used as an overcoat to aid in feathering and smoothing out fillets as the primary sealant around metal fasteners and over seams, or as a faying surface sealant.

Apply mixed compound using parallel strokes over seams and circular motion around fasteners making certain to force sealant into all small gaps. Additional coats should not be applied until sealant becomes firm.

PS 890 B

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.

PS 890 C

roller grade liquid suitable for application by brush.

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 Technical Services of
LE JOINT FRANCAIS.

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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 **PS 890** develops a high state of cure in 14 days at 25°C.

STORAGE LIFE

The storage life of **PS 890** is 6 months when stored in the original, unopened containers at temperature below 25°C.

HEALTH PRECAUTIONS

WARNING : PS 890 A and PS 890 C CONTAINS FLAMMABLE AND VOLATILE SOLVENT.

PS 890 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.

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