



AC-[®]736 Class B Low Density, Non-chromate Corrosion Inhibitive Fuselage Sealant

SIN #834-100

Description

AC-[®]736 Class B is a non-chromate, corrosion inhibitive, fast cure, low density two-component, manganese dioxide cure, polysulfide fuselage sealant. AC-[®]736 acts as an effective barrier against the common causes of corrosion on aluminum or between dissimilar metals. AC-[®]736 has outstanding resistance to aviation gasoline and jet fuel, as well as resistance to chemicals and petroleum products common to the aircraft industry. AC-[®]736 Class B maintains its flexibility and bond strength on most metal substrates such as; aluminum, titanium, steel, stainless steel, and many coatings under extremes of temperature, weathering and stress. The mixed compound is a thixotropic paste easily applied by extrusion, injection gun or spatula, and exhibits superb tooling properties.

Applications

- Sealing fuselages
- Filling voids

Specifications

SS8629 Qualified B-2
MIL-PRF-81733D B-2 Meets Requirements
Type II, Class 1, Grade B

Typical Physical and Application Properties

Color Base: Off White
Accelerator: Brown

Mix Ratio 100 base/10 accelerator
(By weight)

Non-Volatile Content 96%

Base Viscosity 9,000-16,000 poise
(RVF Brookfield #7 spindle
@ 2rpm, 77°F)

Application Life and Cure Time* (@ 75°F, 50% Relative Humidity)

	Minimum Application Life ¹	Typical Tack-Free Time ²	Typical Cure Time ³
B-2	2 hours	12 hours	12 hours

Typical Physical and Performance Properties of Cured Compound After 14 Days @ 77°F/50% RH

Color	Dark Brown
Specific Gravity	1.1
Hardness	42-48 Shore "A"
Low Temperature Flexibility	No cracking, checking or adhesion loss when tested at -65°F (-54°C)
Service Temperatures	-65° to +250°F (-55° to +121°C)
Corrosion, salt spray	None
Repairability	40 piw / 100% cohesive failure

Tensile Strength and % Elongation

Conditioning	Specification Requirements	Results
Standard Cure – 14 days	200 psi/200%	230 psi/390%
--7 days @ 250°F	200 psi/100%	270 psi/120%
--72 hrs in JRF at 140°F, 72 hrs at 120°F, 7 days at 250°F	200 psi/ 100%	270 psi/170%

Tested using MIL-PRF-81733 and AS5127A

¹Application life refers to the length of time that mixed compound remains at a consistency suitable for application with spatula or caulking gun. Application life is always measured at a standard temperature of 77°F with a relative humidity level of 50%. In general, for every 20°F rise in temperature, the application life is halved; and for every 20°F drop, it is doubled. High humidity levels, greater than 75%, during the mixing process will shorten application life.

²Tack-free time is the length of time after which a mixed sealant will no longer tightly adhere to L-LP-690 standard low density polyethylene film.

³Cure time is defined as the length of time it takes AC-736 sealant to reach 30A hardness. It depends on three factors: remaining application life, temperature and relative humidity. To a certain extent, the temperature/humidity factors for application life also apply to curing. To accelerate the curing process, apply heat up to (but not more than) 120°F.



Typical Values of AC-[®]736 Class B Peel Strength*

*Tested per MIL-PRF-81733 and AS5127A

Substrate	Conditioning	Load/% Cohesion
MIL-C-5541 (Alodine Al)	14 days room temp	45 piw/100%
	MIL-PRF-83282, 48 hrs 140°F	39 piw/100%
	MIL-PRF-5606, 48 hrs 140°F	37 piw/100%
	MIL-PRF-23699, 48 hrs 140°F	40 piw/100%
	3% NaCl, 48 hrs 140°F	41 piw/100%
AMS2471 (Sulfuric acid anodized Al)	14 days room temp	44 piw/100%
	MIL-PRF-83282, 48 hrs 140°F	41 piw/100%
	MIL-PRF-5606, 48 hrs 140°F	37 piw/100%
	MIL-PRF-23699, 48 hrs 140°F	38 piw/100%
	3% NaCl, 48 hrs 140°F	40 piw/100%
AMS5513 (Stainless steel)	14 days room temp	53 piw/100%
	MIL-PRF-83282, 48 hrs 140°F	45 piw/100%
	MIL-PRF-5606, 48 hrs 140°F	43 piw/100%
	MIL-PRF-23699, 48 hrs 140°F	37 piw/100%
	3% NaCl, 48 hrs 140°F	36 piw/100%
AMS4911 (Titanium composition C)	14 days room temp	43piw/100%
	MIL-PRF-83282, 48 hrs 140°F	44 piw/100%
	MIL-PRF-5606, 48 hrs 140°F	33 piw/100%
	MIL-PRF-23699, 48 hrs 140°F	46 piw/100%
	3% NaCl, 48 hrs 140°F	46 piw/100%
AMS-C-27725	14 days room temp	46 piw/100%
	MIL-PRF-83282, 48 hrs 140°F	36 piw/100%
	MIL-PRF-5606, 48 hrs 140°F	37 piw/100%
	MIL-PRF-23699, 48 hrs 140°F	37 piw/100%
	3% NaCl, 48 hrs 140°F	37 piw/100%
MIL-PRF-85582	14 days room temp	48 piw/100%
	MIL-PRF-83282, 48 hrs 140°F	33 piw/100%
	MIL-PRF-5606, 48 hrs 140°F	41 piw/100%
	MIL-PRF-23699, 48 hrs 140°F	39 piw/100%
	3% NaCl, 48 hrs 140°F	43 piw/100%

Storage

The shelf life of AC-[®]736 Class B is 9 months from date of packaging, when stored at temperatures below 80°F in its original unopened container.

Mixed AC-[®]736 Class B may be stored under refrigeration as follows:

30 days at -40°F

It is important to remember that freezing, storing and thawing procedures reduce application life. In addition, frozen storage will reduce application life by varying amounts depending on the storage temperature and length of storage time. All aspects of storage, freezing and thawing should be planned carefully and it is not recommended to mix and freeze with less than ½ hour of available application time.

Cleaning of Equipment

1. Wash equipment and tools immediately after use or before the sealant cures with a solvent.
2. For inaccessible areas (such as interior surfaces of extrusion guns), commercially available integral fuel tank stripping compound should be used to remove cured sealant.

Health and Safety Precautions

AC-[®]736 Class B sealant is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Material Safety Data Sheet (MSDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An MSDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure.

All values are typical and are not intended for specification use.

AC-736B-09/10

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