



AC-[®]735 Class B Low Density, Non-chromate Corrosion Inhibitive Fuselage Sealant

SIN #834-100

Description

AC-[®]735 Class B is a non-chromate, corrosion inhibitive, fast cure, low density two-component, manganese dioxide cure, polysulfide fuselage sealant. AC-[®]735 has outstanding resistance to aviation gasoline and jet fuel, as well as resistance to chemicals and petroleum products common to the aircraft industry. AC-[®]735 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

BAMS 552-008	B-1/2, B-2 Qualified
MIL-PRF-81733D	B-2 Qualified
MIL-PRF-81733D	B-1/2 Meets Requirements

Typical Physical and Application Properties

Color Base:	Off White
Accelerator:	Brown
Mix Ratio	100 base/10 accelerator (By weight)
Non-Volatile Content	97%
Base Viscosity (RVF Brookfield #7 spindle @ 2rpm, 77°F)	11,000-13,000 poise

Application Life and Cure Time*

(@ 75°F, 50% Relative Humidity)

	Minimum Application Life ¹	Typical Tack-Free Time ²	Typical Cure Time ³
B-1/2	30 minutes	5 hours	5 hours
B-2	2 hours	10 hours	10 hours

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

Color	Dark Brown
Specific Gravity	1.10
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	None
Repairability	34 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%
7 days at RT in Skydrol	80 psi/100%	120 psi/250%

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-735 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-[®]735 Class B

Peel Strength*

Substrate	Conditioning	Load/% Cohesion
AMS 4049 (Alclad)	14 days room temp	32 piw/100%
	7 days 140°F in JRF/Salt Water	24 piw/100%
MIL-C-5541	14 days room temp	31 piw/100%
	7 days 140°F in JRF/Salt Water	25 piw/100%
Chromic Acid Anodized	14 days room temp	35 piw/100%
	7 days 140°F in JRF/Salt Water	24 piw/100%
MIL-S-5059 (Stainless steel)	14 days room temp	29 piw/100%
	7 days Skydrol at 77°F	24 piw/100%
	7 days 140°F in JRF/Salt Water	22 piw/100%
MIL-T-9046 (Titanium)	14 days room temp	30 piw/100%
	7 days Skydrol at 77°F	26 piw/100%
	7 days 140°F in JRF/Salt Water	22 piw/100%
AMS-C-27725	14 days room temp	33 piw/100%
	7 days 140°F in JRF	22 piw/100%
	7 days 140°F in JRF/Salt Water	23 piw/100%
	7 days Skydrol at 77°F	20 piw/100%
BAMS 565-001	14 days room temp	31 piw/100%
	7 days 140°F in 3% NaCl	27 piw/100%
	7 days 140°F in JRF/Salt Water	26 piw/100%
	7 days Skydrol at 77°F	22 piw/100%
	7 days 140°F in DI Water	23 piw/100%
BAMS 565-002	14 days room temp	30 piw/100%
	7 days 140°F in 3% NaCl	29 piw/100%
	7 days 140°F in JRF/Salt Water	20 piw/100%
	7 days Skydrol at 77°F	20 piw/100%

*Tested per AS5127a

Peel Strength to MIL-PRF-81733D

Substrate	Conditioning	Load/% Cohesion
MIL-PRF- 23377	14 days room temp	44 piw/100%
	48 hrs 140°F in MIL-PRF-83282	36 piw/100%
	48 hrs 140°F in MIL-PRF-7808	37 piw/100%
	48 hrs 140°F in MIL-PRF-23699	37 piw/100%
	48 hrs 140°F in Salt Water	37 piw/100%
	48 hrs 140°F in JRF	32 piw/100%
AS4/3501-6 (Graphite- Epoxy)	14 days room temp	44 piw/100%
	48 hrs 140°F in MIL-PRF-83282	41 piw/100%
	48 hrs 140°F in MIL-PRF-7808	38 piw/100%
	48 hrs 140°F in MIL-PRF-23699	43 piw/100%
	48 hrs 140°F in Salt Water	43 piw/100%
	48 hrs 140°F in JRF	30 piw/100%

Storage

The shelf life of AC-[®]735 Class B is 9 months from date of packaging, when stored at temperatures below 80°F in its original unopened container.

Mixed AC-[®]735 Class B may be stored under refrigeration as follows:
 15 days at -10°F
 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.

Health and Safety Precautions

AC-[®]735 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.

The logo, AC- and AC TECH are trademarks of Advanced Chemistry & Technology, Inc. registered with the US Patent and Trademark Office
 US Patent 6,486,268

AC-735B-08/10

Seller and manufacturer make no warranty, express or implied, concerning this product, or its merchantability or fitness for any purpose, except that the product conforms to manufacturer's product specifications during its applicable shelf life. User shall determine the suitability of this product for the intended purpose and method of application. Seller and manufacturer's only obligation shall be to replace the quantity of the product proved to be defective. AC TECH shall not be liable for damages in excess of the purchase price of this product.

Advanced Chemistry & Technology, Inc

7341 Anaconda Avenue Garden Grove, CA 92841 T: 714.373.2837 F: 714.373.1913

Page 2 of 2