



# AC-<sup>®</sup>770 Class B Low Density Fuselage Sealant (Fast Cure)

SIN #834-100

## Description

AC-<sup>®</sup>770 Class B is a fast cure, low density two-component, manganese dioxide cure, polysulfide fuselage sealant. AC-770 has outstanding resistance to aviation gasoline and jet fuel, as well as resistance to chemicals and petroleum products common to the aircraft industry. AC-770 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

BMS 5-142                      B-2 Qualified

## Typical Physical and Application Properties

Color Base:	Off White
Accelerator:	Brown
Mix Ratio	100 base/10 accelerator (By weight)
Non-Volatile Content	98.5%
Base Viscosity (RVF Brookfield #7 spindle @ 2rpm, 77°F)	9,500-13,000 poise

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

Extrusion Rate at Application Life	88 gpm		
	<b>Minimum Application Life<sup>1</sup></b>	<b>Typical Tack-Free Time<sup>2</sup></b>	<b>Typical Cure Time<sup>3</sup></b>
B-1	1 hour	3-4 hours	5-6 hours
B-2	2 hours	7-8 hours	9-11 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 --7 days @ 120°F in JRF type III 48 hours @ 120°F	150 psi/150%	250 psi/310%
	150 psi/150%	265 psi/330%

<sup>1</sup>Application 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 65%, during the mixing process will shorten application life.

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

<sup>3</sup>Cure time is defined as the length of time it takes AC-770 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.

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## Typical Values of AC-<sup>®</sup>770 Class B

### Peel Strength\*

Substrate	Conditioning	Load/ Cohesion
AMS 4049	14 days @ room temp	34lbs/100%
	7 days @ 120°F in JRF III	30lbs/100%
	7 days @ 120°F in 3% NaCl	27lbs/100%
BMS 10-11 tyI	14 days @ room temp	35lbs/100%
	7 days @ 120°F in JRF III	27lbs/100%
	7 days @ 120°F in 3% NaCl	35lbs/100%
BMS 10-20 tyII	14 days @ room temp	30lbs/100%
	7 days @ 120°F in JRF III	32lbs/100%
	7 days @ 120°F in 3% NaCl	29lbs/100%
MIL-C-5541	14 days @ room temp	44lbs/100%
	7 days @ 120°F in JRF III	34lbs/100%
	7 days @ 120°F in 3% NaCl	32lbs/100%
MIL-A-8625	14 days @ room temp	33lbs/100%
	7 days @ 120°F in JRF III	31lbs/100%
	7 days @ 120°F in 3% NaCl	27lbs/100%
MIL-S-5059	14 days @ room temp	33lbs/100%
	7 days @ 120°F in JRF III	30lbs/100%
	7 days @ 120°F in 3% NaCl	26lbs/100%
MIL-T-9046	14 days @ room temp	37lbs/100%
	7 days @ 120°F in JRF III	26lbs/100%
	7 days @ 120°F in 3% NaCl	25lbs/100%
BMS 10-60 tyII	14 days @ room temp	29lbs/100%
	7 days @ 120°F in JRF III	27lbs/100%
	7 days @ 120°F in 3% NaCl	31lbs/100%
BMS 10-103 tyI	14 days @ room temp	33lbs/100%
	7 days @ 120°F in 3% NaCl	30lbs/100%
	7 days @ 120°F in JRF III	33lbs/100%

\*Tested per BMS 5-142

### Storage

The shelf life of AC-<sup>®</sup>770 Class B is 9 months from date of packaging, when stored at temperatures below 80°F in its original unopened container.

Mixed AC-<sup>®</sup>770 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-<sup>®</sup>770 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.

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US Patent 6,486,268

AC-770B-01/09

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