3M™ Aerospace Sealant AC-735 Class A

Product Description

3M™ Aerospace Sealant AC-735 Class A is a non-chromate, corrosion inhibitive, fast cure, low density, polysulfide fuselage sealant. 3M AC-735 Class A Sealant has outstanding resistance to aviation gasoline and jet fuel, as well as resistance to chemicals and petroleum products common to the aircraft industry. The mixed compound is a pourable liquid easily applied by brush or roller.

Benefits:

- 3M AC-735 is one of the lightest sealants available, driving excess weight out of your aircraft.
- AC-735 is non-chromated, corrosion inhibiting sealant. Using a non-chromated product may help meet the requirements of OSHA's 29 CFR 1910.1026.
- 3M AC-735 is convenient and easily applied.

Applications

- Sealing fuselages, filling voids, covering fasteners

Typical Physical and Application Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Color **Base:** **Accelerator:**	 Off White Brown
Mix Ratio (By weight)	100 base / 10 accelerator
Non-Volatile Content	84% minimum
Base Viscosity (RVF Brookfield #6 spindle @ 10 rpm, 77°F)	100 - 500 poise

Application Life and Cure Time

(@ 77°F, 50% Relative Humidity)

	Minimum Application Life[1]	Typical Tack-Free Time[2]	Typical Cure Time[3]
A-1/2	30 minutes	5 hours	24 hours
A-2	2 hours	10 hours	48 hours

[1] Application life refers to the length of time that mixed compound remains at a consistency suitable for application with brush, 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.

[2] Tack-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.

[3] Cure time is defined as the length of time it takes 3M™ Aerospace Sealant AC-735 Class A 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 Physical and Performance Properties of Cured Compound after 14 Days @ 77°F/50% RH

Color	Dark Brown
Specifc 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 (-54° to +121°C)
Corrosion	None
Repairability	34 piw / 100% cohesive failure

Typical Values of 3M™ Aerospace Sealant AC-735 Class A

Peel Strength

Peel Strength to MIL-PRF-81733D

Substrate	Conditioning	Load / % Cohesion
MIL-C-5541	14 days room temp	44 piw / 100%
	48 hrs 140°F in MIL-PRF-83282	45 piw / 100%
	48 hrs 140°F in MIL-PRF-7808	45 piw / 100%
	48 hrs 140°F in MIL-PRF-23699	43 piw / 100%
	48 hrs 140°F in Salt Water	40 piw / 100%
	48 hrs 140°F in JRF (AMS2629)	33 piw / 100%
Anodized AMS2471	14 days room temp	38 piw / 100%
	48 hrs 140°F in MIL-PRF-83282	43 piw / 100%
	48 hrs 140°F in MIL-PRF-7808	41 piw / 100%
	48 hrs 140°F in MIL-PRF-23699	39 piw / 100%
	48 hrs 140°F in Salt Water	39 piw / 100%
	48 hrs 140°F in JRF (AMS2629)	34 piw / 100%
AMS4130 (Cd Plated Steel)	14 days room temp	42 piw / 100%
	48 hrs 140°F in MIL-PRF-83282	44 piw / 100%
	48 hrs 140°F in MIL-PRF-7808	44 piw / 100%
	48 hrs 140°F in MIL-PRF-23699	41 piw / 100%
	48 hrs 140°F in Salt Water**	25 piw / 100%
	48 hrs 140°F in JRF (AMS2629)	36 piw / 100%
AMS 4911 (Titanium)	14 days room temp	32 piw / 100%
	48 hrs 140°F in MIL-PRF-83282	27 piw / 100%
	48 hrs 140°F in MIL-PRF-7808	27 piw / 100%
	48 hrs 140°F in MIL-PRF-23699	31 piw / 100%
	48 hrs 140°F in Salt Water	21 piw / 100%
	48 hrs 140°F in JRF (AMS2629)	22 piw / 100%
MIL-PRF-23377	14 days room temp	42 piw / 100%
	48 hrs 140°F in MIL-PRF-83282	35 piw / 100%
	48 hrs 140°F in MIL-PRF-7808	36 piw / 100%
	48 hrs 140°F in MIL-PRF-23699	39 piw / 100%
	48 hrs 140°F in Salt Water	35 piw / 100%
	48 hrs 140°F in JRF (AMS2629)	36 piw / 100%
AMS4377 (Magnesium)	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	33 piw / 100%
	48 hrs 140°F in Salt Water	40 piw / 100%
	48 hrs 140°F in JRF (AMS2629)	28 piw / 100%
AS4/3501-6 (Graphite-Epoxy) (Peel Side)	14 days room temp	29 piw / 100%
	48 hrs 140°F in MIL-PRF-83282	23 piw / 100%
	48 hrs 140°F in MIL-PRF-7808	25 piw / 100%
	48 hrs 140°F in MIL-PRF-23699	33 piw / 100%
	48 hrs 140°F in Salt Water	23 piw / 100%
	48 hrs 140°F in JRF (AMS2629)	28 piw / 100%
AS4/3501-6 (Graphite-Epoxy) (Tool Side)	14 days room temp	29 piw / 100%
	48 hrs 140°F in MIL-PRF-83282	25 piw / 100%
	48 hrs 140°F in MIL-PRF-7808	28 piw / 100%
	48 hrs 140°F in MIL-PRF-23699	34 piw / 100%
	48 hrs 140°F in Salt Water	23 piw / 100%
	48 hrs 140°F in JRF (AMS2629)	21 piw / 100%

***Use AMS3100 Adhesion Promoter*

Storage

The shelf life of 3M™ Aerospace Sealant AC-735 Class A is 9 months from date of packaging, when stored at temperatures below 80°F in its original unopened container.

Mixed 3M AC-735 Class A Sealant 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 1/2-hour of available application time.

Health and Safety Precaution

Before using this product, read and understand the Safety Data Sheet (SDS), 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.

These products were manufactured under a 3M Quality Management System registered to the AS9100 standard.

Best in Class Application Tools

Nozzle Assembly

	3M ID	Item Description
	70-0052-0472-5	3M Roll on nozzle assembly, 1" wide
	70-0052-0473-3	3M Roll on nozzle assembly, 2" wide
	70-0052-0737-1	3M Roll on nozzle assembly, 3" wide
	70-0052-0738-9	3M Roll on nozzle assembly, 4" wide

Nozzle Replacement

	3M ID	Item Description
	70-0052-0471-7	3M Roll on nozzle replacement, 1" wide
	70-0052-0545-8	3M Roll on nozzle replacement, 2" wide
	70-0052-0739-7	3M Roll on nozzle replacement, 3" wide
	70-0052-0740-5	3M Roll on nozzle replacement, 4" wide

Precautionary Information

Refer to Product Label and Safety Data Sheet (SDS) for health and safety information before using this product. For additional health and safety information, please visit www.3M.com/msds or call 1-800-364-3577 or (651) 737-6501.

For Additional Information

In the U.S., call toll free 1-800-235-2376, or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5714. If you are outside of the U.S., please contact your nearest 3M office or one of the following branches:

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Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application. Consult local air quality regulations that may regulate product use.

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