3M™ Aerospace Sealant AC-236 Class A

Product Description

3M™ Aerospace Sealant AC-236 Class A are brushable, two-component, liquid polysulfide polymer sealants providing excellent fuel tank and fuselage seals. They have outstanding resistance to aviation gasoline and jet fuel, as well as resistance to chemicals and petroleum products common to the aircraft industry. 3M AC-236 Class A Sealants maintain flexibility and bond strength on most metal substrates like aluminum, stainless steel, steel, and many coatings under extremes of temperature, weathering and stress. The mixed compound is a pourable liquid easily applied by brush. They have excellent tooling properties.

Applications

- Sealing integral fuel tanks
- Repairing integral fuel tanks
- Sealing fuselages

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:**	 White Black
Mix Ratio	100 base / 10 accelerator (by weight)
Nonvolatile Content	87%
Base Viscosity (RVF Brookfield #16 spindle) @ 10 rpm, 77°F)	100 to 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	1/2 hour	7 hours	24 hours
A-2	2 hours	24 hours	48 hours

[1]Application life refers to the length of time that mixed compound remains at a consistency suitable for application with brush. 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 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-236 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 (when tested per AMS-S-8802)

Mixed Color	Gray
Specifc Gravity	1.64
Hardness	60 Shore “A”
Low Temperature Flexibility	No cracking, checking or adhesion loss when tested at -65°F (-54°C)
Service Temperature	-65° to +250°F (-54° to +121°C)
Thermal Rupture Resistance	Retains pressure of 10 psi at 250°F with negligible deformation
Corrosion	None
Repairability	40 piw to itself and other MIL-S-8802 qualified sealants
Weight Loss and Flexibility	No cracking when bent 180° over a 1/8 inch mandrel. No more than 6% loss of the sealant compound after fluid immersion.

Typical Values of 3M™ Aerospace Sealant AC-236 Class A to AMS-S-8802

Peel Strength*

Substrate	Conditioning	Average Peak Load % Cohesion
MIL-C-5541	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	63 lbs./100% 62 lbs./100%
AMS2471 Anodized	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	62 lbs./100% 61 lbs./100%
Titanium (AMS4911)	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	59 lbs./100% 56 lbs./100%
Graphite Epoxy AS 4/3501-6	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	44 lbs./100% 45 lbs./100%
AMS5516 (Stainless Steel)	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	53 lbs./100% 63 lbs./100%
MIL-C-27725	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	53 lbs./100% 63 lbs./100%
MIL-P-23377	7 days @ 140°F in DI Water 7 days @ 140°F in SW	63 lbs./100% 63 lbs./100%

**Specification requirement - 20 lbs./100%, wire mesh.*

Health and Safety Precaution

3M AC-236 Class A Sealants are 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.

Storage

The shelf life of 3M AC-236 Class A Sealants is 9 months from date of packaging, when stored at temperatures below 80°F in its original container.

Mixed 3M AC-236 Class A Sealants 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. Also, 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 application time.

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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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61-2-498-9710 fax

Austria
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86-21-62753535 tel
86-21-62190698 fax

Denmark
45-43-480100 tel
45-43-968596 fax

France
0810-331-300 tel
30-31-6195 fax

Germany
02131-14-2344 tel
02131-14-3647 fax

Italy
02-7035-2177 tel
02-7035-2125 fax

Japan
03-3709-8245 tel
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Korea
02-3771-4114 tel
02-786-7429 fax

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31-71-5-450-280 fax

South Africa
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01-724-9114 tel
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(0) 161-237-6174 tel
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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

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

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