

3M™ Aerospace Sealant AC-236 Class C

Product Description

3M™ Aerospace Sealant AC-236 Class C are two-component, manganese dioxide cured, liquid polysulfide polymer systems 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 C 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 flowable, faying surface grade material easily applied by brush, roller, spatula or extrusion gun. They have excellent tooling properties.

Applications

- Fay surface sealing
- Integral fuel tank sealing
- Integral fuel tank repair
- Fuselage sealing

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:	White
Accelerator:	Black
Mix Ratio	100 base / 10 accelerator (by weight)
Nonvolatile Content	93%
Base Viscosity (RVF Brookfield #7 spindle @ 2 rpm, 77°F)	1,500 - 3,500 poise
Accelerator Viscosity (RVF Brookfield #7 spindle @ 10 rpm, 77°F)	700 - 1,600 poise

Assembly, Time and Tack-Free Time

(@ 77°F, 50% Relative Humidity)

	Minimum Assembly Time ¹	Typical Tack-Free Time ²
C-20	20 hours	60 hours
C-80	80 hours	96 hours

¹Assembly time refers to the length of time the mixed compound remains at a consistency suitable for assembly and squeeze out. Assembly time is always calculated for a standard temperature of 77°F with a relative humidity level of 50%. In general, for every 20°F rise in temperature, the assembly time is halved; and for every 20°F drop, it is doubled. High humidity levels during the mixing process will shorten assembly time.

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.

Typical Physical and Performance Properties of Cured Compound after 14 Days @ 77°F/50% RH when tested per AMS-S-8802

Color	Gray
Specific 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	Does not blister or sponge
Shear Strength	285 psi
Corrosion	None
Fuel Resistance	70 days at 140°F, 35 piw/100% cohesive failure
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.



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

Peel Strength*

Substrate	Conditioning	Peak Load / % Cohesion
MIL-C-5541	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	35 lbs./100% 45 lbs./100%
AMS2471 Anodized	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	52 lbs./100% 45 lbs./100%
MIL-C-27725	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	35 lbs./100% 45 lbs./100%
Stainless Steel	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	46 lbs./100% 48 lbs./100%
MIL-P-23377	7 days @ 140°F in DI Water 7 days @ 140°F in Salt Water	45 lbs./100% 45 lbs./100%
Titanium (AMS4911)	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	50 lbs./100% 52 lbs./100%
Graphite Epoxy AS 4/3501-6	7 days @ 140°F in JRF 7 days @ 140°F in JRF/SW	42 lbs./100% 44 lbs./100%

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

Health and Safety Precaution

3M™ Aerospace Sealant AC-236 Class C 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™ Aerospace Sealant AC-236 Class C is 9 months from date of packaging, when stored at temperatures below 80°F in its original container.

Mixed 3M AC-236 Class C 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.

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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:

Australia 61-2-498-9711 tel 61-2-498-9710 fax	Austria 01-86686-298 tel 01-86686-229 fax	Brazil 55 19 3838-7876 tel 55 19 3838-6892 fax	Canada 800-410-6880 ext. 6018 tel 800-263-3489 fax
China 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 03-3709-8743 fax	Korea 02-3771-4114 tel 02-786-7429 fax	Netherlands 31-71-5-450-272 tel 31-71-5-450-280 fax
South Africa 11-922-9111 tel 11-922-2116 fax	Spain 34-91-321-6000 tel 34-91-321-6002 fax	Switzerland 01-724-9114 tel 01-724-9068 fax	United Kingdom (0) 161-237-6174 tel (0) 161-237-3371 fax

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.

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



Aerospace and Aircraft Maintenance Department

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