

3M™ Aerospace Sealant AC-730 Class C

Product Description

3M™ Aerospace Sealant AC-730 Class C are two-part, manganese- cured, non-chromate corrosion inhibiting sealants. These sealants provide an effective barrier against the common causes of corrosion on aluminum and between dissimilar metals. 3M AC-730 Class C Sealants have outstanding resistance to aviation gasoline and jet fuel, as well as resistance to chemicals, hydraulic fluids and petroleum products common to the aircraft industry. The mixed compound is a flowable, faying surface grade material, easily applied by spatula, brush, roller or extrusion gun. They maintain flexibility and bond strength on most metal substrates under extremes of temperature, weathering, and stress.

Applications

- Sealing faying surfaces of mating parts
- Sealing joints from the passage of liquid or air
- Prevents corrosion and channeling leakage

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:	Beige (White)
Accelerator:	Black
Mix Ratio	100 base / 10 accelerator (by weight)
Nonvolatile Content	90%
Base Viscosity (RVF Brookfield #7 spindle @ 2 rpm, 77°F)	2,000 - 4,000 poise

Application Life and Cure Time

(@ 77°F, 50% Relative Humidity)

	Minimum Application Life ¹	Typical Tack-Free Time ²	Typical Cure Time ³
C-8 (24)	8 hours	24 hours	7 days
C-48 (168)	48 hours	168 hours	5 weeks

¹Application life refers to the length of time the 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° drop, it is doubled. High humidity levels during the mixing process will shorten application life.

²Assembly time is the length of time after which a mixed sealant will squeeze out from between faying surfaces. .

³Cure time is defined as the length of time it takes 3M™ Aerospace Sealant AC-730 Class C 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) 140°F.

Typical Physical and Performance Properties of Cured Compound after 14 Days @ 77°F/50% RH when tested in accordance with AMS3265

Color (mixed)	Dark Gray
Specific Gravity	1.5
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)
Short Term Service Temperature	-65° to +360°F (-54° to +183°C)
Shear Strength	350 psi
Corrosion	No softening, sponging, or loss of adhesion; no evidence of corrosion of metal under sealant.
Repairability	20 piw to itself and other AMS3265 and AMS-S-S-8802 sealants



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Typical Values of 3M™ Aerospace Sealant AC-730 Class C

Peel Strength*

Substrate	Conditioning	Load / % Cohesion
MIL-C-5541	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl	42 lbs./100% 35 lbs./100%
AMS2471 Anodized Al	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl	51 lbs./100% 38 lbs./100%
AMS5516 Stainless Steel	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl	60 lbs./100% 35 lbs./100%
AMS4911 Titanium	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl	59 lbs./100% 40 lbs./100%
MIL-C-27725	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl	55 lbs./100% 39 lbs./100%
MIL-PRF-23377	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl	42 lbs./100% 52 lbs./100%
AS4/3501-6 Graphite/Epoxy	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl	58 lbs./100% 37 lbs./100%

*Tested per AMS3265

Health and Safety Precaution

3M™ Aerospace Sealant AC-730 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-730 Class C is 9 months from date of packaging, when stored at temperatures below 80°F in its original container.

Mixed 3M AC-730 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 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:

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
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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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