3M™ Aerospace Sealant AC-360 A-2

Product Description

3M™ Aerospace Sealant AC-360 A-2 is a fast cure, intermediate density two-component, manganese dioxide cure, brushable, polysulfide fuel tank and fuselage sealant. 3M AC-360 A-2 Sealant has outstanding resistance to aviation gasoline and jet fuel, as well as resistance to chemicals and petroleum products common to the aircraft industry. 3M AC-360 A-2 Sealant 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 pourable liquid easily applied by brush or roller. It has 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:** **Mixed:**	 Off White Dark Brown Gray
Mix Ratio	100 base / 10 accelerator (by weight)
Nonvolatile Content	88%
Base Viscosity (RVF Brookfield #6 spindle) @ 10 rpm, 77°F)	100 - 350 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-2	2 hours	8 hours	7-9 hours

[1]Application life refers to the length of time that mixed compound remains at a consistency suitable for application with brush or roller. Application life is always measured at a standard temperature of 77°F with a relative humidity level of 50%. In general, for every 20° rise in temperature, the application life is halved; for every 20° 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-360 A-2 to reach 30A hardness. It depends on three factors: remaining application life, temperature, and relative humidity. 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

Color	Dark Gray
Specific Gravity	1.4 max
Hardness	48-53 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)
Short Term Service Temperature	-65° to +360°F (-54° to +182°C)
Thermal Rupture Resistance	Conforms
Corrosion	None
Repairability	35 piw / 100% cohesive failure

Typical Values of 3M™ Aerospace Sealant AC-360 A-2

Tensile Strength and % Elongation

Conditioning	Requirements	Results
Standard Cure	200 psi / 200%	221 psi / 386%
7 days JRF	125 psi / 150%	302 psi / 506%

Peel Strength*

Substrate	Conditioning	Load / % Cohesion
AMS 4049	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl	32 lbs./100% 32 lbs./100%
MIL-C-27725	7 days @ 140°F in JRF 7 days @ 140°F in JRF/NaCl 70 days @ 140°F in JRF 70 days @ 140°F in JRF/NaCl	33 lbs./100% 33 lbs./100% 37 lbs./100% 37 lbs./100%
MIL-P-23377	7 days @ 140°F NaCl	37 lbs./100%
Alodine 6oo	7 days @ 140°F in JRF VII 7 days @ 140°F in NaCl	26 lbs./100% 25 lbs./100%
CAA	7 days @ 140°F in JRF VII 7 days @ 140°F in NaCl	24 lbs./100% 33 lbs./100%
Ty 302 Stainless Steel	7 days @ 140°F in JRF VII 7 days @ 140°F in NaCl	24 lbs./100% 29 lbs./100%
BMS10-20 Ty.II. Gr. A	7 days @ 140°F in JRF VII	65 lbs./100%
BMS10-20 Ty.II, Gr. A	Dry 7 days @ 140°F in JRF VII 7 days @ 140°F in NaCl	27 lbs./100% 22 lbs./100% 33 lbs./100%
BMS10-11 Ty-1	Dry 7 days @ 140°F in JRF VII 7 days @ 140°F in NaCl	31 lbs./100% 25 lbs./100% 32 lbs./100%

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

Health and Safety Precaution

3M™ Aerospace Sealant AC-360 A-2 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.

Storage

The shelf life of 3M™ Aerospace Sealant AC-360 A-2 is 6 months from date of packaging, when stored at temperatures below 80°F in its original unopened container.

Mixed 3M AC-360 A-2 Sealant may be stored under refrigeration as follows:

15 days at -10°F
28 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 of available 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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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.

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60-9700-0332-7

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