3M Science. Applied to Life.™

3M™ AC-350 Class B Aerospace Sealants

Technical Data Sheet

3M™ AC-350 Class B Aerospace Sealants are designed for aircraft integral fuel tank and fuselage applications. When mixed, these two-part manganese dioxide cured polysulfide sealants form a thixotropic paste that is easily dispensed with a cartridge applicator or spatula. AC-350 Sealants have a service temperature range of -65 °F to 250 °F (-54 °C to 121 °C), with intermittent excursions (6 hours total) to 360 °F (182 °C).

Key Features

- Resistant to common commercial and military jet fuels
- Retain shape and volume during cure
- Optimized mixing, application and tooling characteristics
- Maintain flexibility and bond strength on a variety of metal, composite, and coated substrates during service

Application Properties[1]

Class	Application Time[2]	Tack Free Time[3]	Cure Time to ≥ 30A Hardness
B-1/4	15 minutes	2 - 3 hours	< 3 hours
B-1/2	30 minutes	3 - 4 hours	< 4 hours
B-2	2 hours	7 – 8 hours	< 8 hours
B-4	4 hours	28 – 32 hours	< 32 hours

Physical and Performance Properties

Color	Base: Off-white Accelerator: Dark Brown Mixed: Dark Brown
Mix Ratio, base to accelerator AC-350 B-1/2, B-2, B-4 AC-350 B-1/4	By weight (by volume) 10 : 1 (11.9 : 1) 8 : 1 (9.5 : 1)
Nonvolatile Content	99%
Base Viscosity #7 spindle, 2 rpm, 77 °F (25 °C)	9000 - 12000 poise 900 – 1200 Pa·s
Specific Gravity, cured	1.4
Ultimate Hardness, Durometer A	50 – 55
Low Temperature Flexibility -65 °F (-54 °C)	No cracking, checking or adhesion loss
Thermal Rupture Resistance 300 °F (149 °C), 10 psi (69 kPa), 30 minutes	≤ 0.156 inch (3.96 mm) No blistering or sponging
Weight Loss / Flexibility / Swell 7 days at 140 °F (60 °C) in JRF	3 – 4 % weight loss / No cracking or checking / 1 – 3 % volume swell
Resistance to Corrosion in JRF / Saltwater	No corrosion under sealant or signs of deterioration
Repairability after JRF Immersion To self To AMS-S-8802 sealant To AMS3276 sealant	All 100% cohesion 40 lbf/inch (180 N/25 mm) 48 lbf/inch (210 N/25 mm) 42 lbf/inch (180 N/25 mm)

180° Peel Strength

AMS2629 Type 1 Jet Reference Fluid (JRF) Immersion
7 days at 140 °F (60 °C), 100% cohesive failure

Substrate	Load lbf/inch (N/25 mm)
MIL-DTL-5541 Conversion Coating	66 (290)
AMS2471 Sulfuric Acid Anodize	44 (190)
AMS-C-27725 Ty 2 Fuel Tank Coating	65 (280)
AMS5516 Stainless Steel	41 (180)
AMS4911 Titanium Alloy	43 (190)
AS4/3501-6 Graphite epoxy (ply side)	40 (180)
	41 (180)
IM7/5250-4 Graphite BMI (ply side)	40 (180)
IM7/5250-4 Graphite BMI (tool side)	39 (170)

AMS2629 Type 1 JRF/3% Saltwater Bi-layer Immersion
7 days at 140 °F (60 °C), 100% cohesive failure

Substrate	Load lbf/inch (N/25 mm)
MIL-DTL-5541 Conversion Coating	74 (320)
AMS2471 Sulfuric Acid Anodize	55 (240)
AMS-C-27725 Ty 2 Fuel Tank Coating	75 (330)
AMS5516 Stainless Steel	69 (300)
AMS4911 Titanium Alloy	62 (270)
AS 4/3501-6 Graphite epoxy (ply side)	39 (170)
AS 4/3501-6 Graphite epoxy (tool side)	40 (180)
IM7/5250-4 Graphite BMI (ply side)	40 (180)
IM7/5250-4 Graphite BMI (tool side)	39 (170)

3% Saltwater Immersion
7 days at 140 °F (60 °C), 100% cohesive failure

Substrate	Load lbf/inch (N/25 mm)
MIL-PRF-85285 Urethane Topcoat	50 (220)
MIL-PRF-85582 Water-based Primer	51 (220)
MIL-PRF-23377, Standard cure	58 (250)
MIL-PRF-23377, 200°F (93°C) cure	50 (220)

Tensile Strength and % Elongation

Conditioning	Tensile Strength psi (MPa)	Elongation %
Standard cure	314 (2.17)	495
14 Days at 140 °F (60 °C) in JRF	270 (1.86)	487
7 Days at 250 °F (121 °C) in air	297 (2.05)	409
24 Hours at 250°F (121 °C) in air + 7 Days at 140 °F (60 °C) in JRF	370 (2.55)	265
72 hours at 140 °F (60 °C) in JRF; 72 hours at 120 °F (49 °C) + 7 days at 250 °F (121 °C) in air	444 (3.06)	144
Standard Heat Cycle[4] (x6) in air	315 (2.17)	67
12 days at 140 °F (60 °C) + 60 hours at 160 °F (71 °C) + 6 hours at 180 °F (82 °C) in JRF; 24 hours at 120 °F (49 °C) + Standard Heat Cycle[4] (x6) in air	350 (2.41)	63

[1] Testing per AMS-S-8802, AMS3276 and AS5127/1. Standard Conditions: 77 °F (25 °C) and 50 % Relative Humidity. Sealant cure for Performance Properties : 14 Days at Standard Conditions OR 48 hours at Standard Conditions + 24 hours at 140 °F (60 °C).
[2] Extrusion rate of 40 g/minute, minimum, at Application Time.
[3] No sealant transfer to low density polyethylene film.
[4] Standard Heat Cycle: 4 hours at 260 °F (127 °C) + 40 minutes at 320 °F (160 °C) + 1 hour at 360 °F (182 °C).

Shelf Life and Storage

The shelf life of 3M™ AC-350 Class B Aerospace Sealants in 2-part kits is 9 months from Date of Packaging (DOP) when stored below 80 °F (27 °C) in the original unopened containers. Pre-mixed and frozen (PMF) AC-350 Class B-1/2, B-2, and B-4 will maintain typical application properties for a minimum of 30 days if stored below -40 °F (-40 °C).

Note: Industry and/or OEM specifications to which the product is qualified may establish different storage requirements. The information shown on the product label and/or the accompanying Certificate of Analysis (COA) takes precedence over the Technical Data Sheet.

Mixing and Thawing Instructions

2-Part Injection Kits: Hand Mix: 50 - 75 strokes; Machine Mix: 37 strokes (1.5 minutes at 25 strokes/min).

2-Part Can Kits (Bulk): Only base and catalyst compounds with the same lot numbers should be mixed. Stir catalyst before using. Mix entire contents of both containers together or mix in appropriate base to accelerator ratio until sealant is uniform in color with no streaks.

Pre-Mixed Frozen (PMF): Thaw at ambient temperature until core reaches 50 °F (10 °C), minimum, and/or until condensation no longer forms after wiping the cartridge exterior. Do not refreeze after thawing.

Precautionary Information: Refer to Product Label and Safety Data Sheet for health and safety information before using this product. For additional health and safety information, visit www.3m.com/3M/en_US/company-us/SDS-search/

Authorization to Use: Ensure products meet all applicable specifications, standards, and maintenance manual requirements for the platform being worked on and validate all aircraft approvals against current technical documentation.

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

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information. **Product Selection and 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. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (*e.g.*, OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property. **Warranty, Limited Remedy, and Disclaimer:** Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price. **Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Automotive & Aerospace Solutions Division
3M Center
St. Paul, MN 55144-1000
Phone 1-800-235-2376
Web www.3M.com/aerospace

AC-350 B
Issue date: 06/2025