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AEROSPACE MATERIAL SPECIFICATION

SAE AMS3269 REV. C

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Superseding AMS3269B

Sealing Compound, Polysulfide (T) Synthetic Rubber for Integral Fuel Tank and Fuel Cell Cavities High Strength, for Intermittent Use to 360 °F (182 °C)

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

STABILIZED NOTICE

This document has been declared "Stabilized" by SAE G-9, Aerospace Sealing Committee, and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

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1. SCOPE

1.1 Form

This specification covers three classes of fuel-resistant polysulfide (T) sealing compound with high strength and temperature characteristics, supplied as a two-component system which cures at room temperatures.

1.2 Application

This sealing compound has been used typically in sealing aircraft integral fuel tanks, fuel tank fillets and faying surfaces, pressure barriers and moldline surfaces, but usage is not limited to such applications. The sealing compound is resistant to jet fuels and is capable of withstanding long-term exposure -65 to 250 °F (-54 to + 121 °C), with short-term exposure (approximately 6 hours) to 360 °F (182 °C).

1.2.1 Notation

AMS3100 adhesion promoter should be applied prior to sealant.

1.3 Classification

Sealing compounds covered by this specification are classified by method of application and application times as follows:

Class A - Suitable for application by brushing, injecting, or spraying. Available in the following application times in hours:

A-1/2
A-2
A-4

Class B - Suitable for application by extrusion gun or spatula. Available in the following application times in hours:

B-1/2
B-2
B-4

Class C - Suitable for extrusion gun, spatula, brush, or roller. Available in the following application times in hours:

Notation: ( ) Assembly time in hours

C-8(24)
C-12(48)
C-48(168)
C-96(336)

1.3.1 All supplied material must conform to both class and application time of the specific sealing compound that has been ordered.

1.4 Precautions

1.4.1 Safety - Hazardous Materials

Shall be in accordance with AS5502 (1.1).

2. APPLICABLE DOCUMENTS

Shall be in accordance with AS5502 (2.).

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

AMS2471	Anodic Treatment of Aluminum Alloys, Sulfuric Acid Process, Undyed Coating
AMS2629	Fluid, Jet Reference Fluid
AMS3100	Adhesion Promoter, for Polysulfide Sealing Compounds
AMS3276	Sealing Compound, Integral Fuel Tank and Fuel Cell Cavities, Intermittent Use to 360 °F (182 °C)
AMS4045	Aluminum Alloy, Sheet and Plate, 5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr, (7075; -T6 Sheet, -T651 Plate), Solution and Precipitation Heat Treated
AMS4911	Titanium Sheet, Strip and Plate, 6Al - 4V annealed
AMS5516	Steel, Corrosion-Resistant, Sheet, Strip and Plate, 18Cr - 9.0Ni, (SAE 30302), Solution Heat Treated
AMS-C-27725	Coating, Corrosion Preventive, for Aircraft Integral Fuel Tanks
ARP1917	Clarification of Terms Used in Aerospace Metals Specifications
AS5127	Methods For Testing Aerospace Sealants
AS5127/1	Methods For Testing Aerospace Sealants, Two-Component Synthetic Rubber Compounds
AS5502	Standard Requirements for Aerospace Sealants

2.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM D 1974	Methods for Closing, Sealing and Reinforcing Fiberboard Boxes

2.3 U.S. Government Publications

Available from the Document Automation and Production Service (DAPS), Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Tel: 215-697-6257, http://assist.daps.dla.mil/quicksearch/.

MIL-PRF-23377	Primer Coatings: Epoxy, High Solids
MIL-DTL-81706	Chemical Conversion Materials for Coating Aluminum and Aluminum Alloys
MIL-PRF-85285	Coating, Polyurethane, High Solids
MIL-PRF-85582	Primer Coatings, Epoxy, Waterborne

2.4 PRI Publications

Available from Performance Review Institute, 161 Thorn Hill Road, Warrendale, PA 15086-7527, Tel: 724-772-1616, www.pri-network.org.

PD2000	Procedures for an Industry Qualified Products Management Process

2.5 Definitions

See AS5502 (2.3).

3. TECHNICAL REQUIREMENTS

3.1 Materials

The basic ingredient used in the manufacture of these products shall be synthetic rubber, made from liquid polysulfide and derivatives thereof. The sealing compound shall cure by the addition of a separate curing agent to the base compound, and shall not depend on solvent evaporation for curing. The curing agent shall possess sufficient color contrast to the base compound to permit easy identification of an unmixed or incompletely mixed sealing compound. Neither the base compound nor the cured sealant shall be red or pink in color.

3.1.1 Qualification

All products sold to this specifications shall be listed, or approved for listing, on the qualified products list, PRI QPL AMS3269. The qualified products list shall be in accordance with PD 2000.

3.2 Date of Packaging

Shall be in accordance with AS5502 (3.1).

3.3 Toxicological Formulations

Shall be in accordance with AS5502 (3.2).

3.4 Quality

Shall be in accordance with AS5502 (3.3).

3.5 Shelf Life

Shelf life shall be a minimum of 9 months from the date of packaging. Material may be retested for shelf life extension.

3.5.1 Premixed and Frozen Material

Premixed and frozen material shall have a minimum storage life of 30 days at -40 °F (-40 °C) or lower, or 10 days at -10 to -40 °F (-23 to -40 °C) from date of mix/freeze. The date of mix/freeze shall be within the shelf life of the unmixed material.

3.6 Properties

The sealing compound and the curing agent shall conform to all requirements for application properties and, when mixed in accordance with the manufacturer's instructions, and cured in accordance with 4.5.5, shall conform to all requirements for performance and resistance to hydrocarbons shown in Table 1, and determined in accordance with the specified test methods.

TABLE 1 - PROPERTIES

Paragraph	Property	Requirement	Test Procedures (Paragraph)
3.6.1	Nonvolatile Content, by weight, min		AS5127/1 (5.1)
	Class A	93%	
	Class B (Class B-2: see Note 2.)	97%	
	Class C	88%	
3.6.2	Air Content, max (Class B only)	4%	AS5127/1 (5.2)
3.6.3	Viscosity of Base Compound		AS5127/1 (5.3)
	Class A	100 to 500 poises	
	(Use No. 6 spindle @ 10 rpm)	(10 to 50 Pa•S)	
	Class B	9000 to 16000 poises	
	(Use No. 7 spindle @ 2 rpm)	(900 to 1600 Pa•S)	
	Class C	1000 to 4000 poises	
	(Use No. 6 spindle @ 2 rpm)	(100 to 400 Pa•S)	
3.6.4	Viscosity of Curing Agent	700 to 1600 poises	AS5127/1 (5.4)
	(Use No. 7 spindle @ 10 rpm)	(70 to 160 Pa•S)	
3.6.5	Flow		AS5127/1 (5.5.1)
	Class B	0.1 to 0.75 inches	
	(Class B-2: see Notes 1 and 2.)	(2.5 to 19.1 mm)	
	Class C	0.010 inch (0.25 mm)	
3.6.6	Application Time, min		AS5127/1 (5.6)
	Class A - From the beginning of mixing, the viscosity shall not exceed 2500 poise (250 Pa•S)		AS5127/1 (5.6.1) (Use No 7 spindle @ 10 rpm
	A-1/2	1/2 hour	
	A-2	2 hours	
	A-4	4 hours	
	Class B - From the beginning of mixing, not less than 15 grams per minute shall be extruded		AS5127/1 (5.6.2)
	B-1/2	1/2 hour	
	B-2	2 hours	
	B-4	4 hours	
	(Class B-2: see Notes 1 and 2.)		
	Class C - From the beginning of mixing, not less than 30 grams per minute shall be extruded		AS5127/1 (5.6.2)
	C-8(24)	8 hours	
	C-12(48)	12 hours	
	C-48(168)	48 hours	
	C-96(336)	96 hours	

TABLE 1 - PROPERTIES (CONTINUED)

Paragraph	Property	Requirement	Test Procedures (Paragraph)
3.6.7	Assembly Time (Class C only)		AS5127/1 (5.7)
	C-8(24)	24 hours	
	C-12(48)	48 hours	
	C-48(168)	168 hours	
	C-96(336)	336 hours	
3.6.8	Tack-Free Time (Measured from beginning of mixing), hours, max		AS5127/1 (5.8)
	A-1/2	10	
	A-2	24	
	A-4	36	
	B-1/2	10	
	B-2 (Class B-2: see Notes 1 and 2.)	24	
	B-4	36	
	C-8(24)	96	
	C-12(48)	N/A	
	C-48(96)	N/A	
	C-96(336)	N/A	
3.6.9	Standard Cure Time, (time to 30 Durometer A), hours, max		AS5127/1 (5.9)
	A-1/2	30	
	A-2	72	
	A-4	90	
	B-1/2	30	
	B-2 (Class B-2: see Notes 1 and 2.)	72	
	B-4	90	
	C-8(24)	168	
	C-12(48)	336	
	C-48(96)	8 weeks	
	C-96(336)	16 weeks	
3.6.10	Fluid Immersion Cure Time (Classes A-1/2; B-1/2 only)		AS5127/1 (5.11)
	After 48 hours	25 Durometer A	
	After 120 hours	30 Durometer A	
3.6.11	Specific Gravity, max	1.65	AS5127/1 (6.1)
3.6.12	14-Day Hardness, min	40 Durometer A	AS5127/1 (6.2)
3.6.13	Radiographic Density	Density 1.00 max (between sealant & plate) Density approximately 3.00 (density in slot)	AS5127/1 (6.3)
3.6.14	Resistance to Thermal Expansion (Class B only)	Sealant flush with groove within +0.010 and -0.003 inch (+0.25 and -0.08 mm) at the wide end of the test block and within +0.005 and -0.003 inch (+0.13 and -0.08 mm) at the narrow end	AS5127/1 (6.4)

TABLE 1 - PROPERTIES (CONTINUED)

Paragraph	Property	Requirement	Test Procedures (Paragraph)
3.6.15	Heat Reversion Resistance (Classes B; C only)	Sealant shall not revert to a liquid or paste-like consistency, nor become brittle or lose adhesion	AS5127/1 (6.5)
3.6.16	Hydrolytic Stability, min	30 Durometer A	AS5127/1 (6.6)
3.6.17	Shaving and Sanding (Class B only)	No rolling or tearing of the sealant smooth finish	AS5127/1 (6.7)
3.6.18	Paintability	No separation from sealant	AS5127/1 (6.8)
3.6.19	Weathering	No cracking, chalking, peeling or loss of adhesion	AS5127/1 (6.9)
3.6.20	Chalking	No chalking	AS5127/1 (7.1)
3.6.21	Resistance to Thermal Rupture, max	0.156 inch (3.96 mm) max No blistering or sponging	AMS3269 (4.6.1)
3.6.22	Fluid Rupture Resistance	No AMS2629 fluid or pressure loss	AMS3269 (4.6.2)
3.6.23	Weight Loss & Flexibility		AS5127/1 (7.4)
	Weight Loss, max	8%	
	Flexibility	No cracking or checking	
3.6.24	Volume Swell	5 to 15%	AS5127/1 (7.5)
3.6.25	Low Temperature Flexibility	No visual evidence of cracking or checking. No loss of adhesion	AMS3269 (4.6.3)
3.6.26	Tensile Strength and Elongation (Classes B and C), min		AS5127/1 (7.7)
3.6.26.1	Standard Cure:		
	Class B	400 psi (2758 kPa), 250% elongation	
	Class C	350 psi (2413 kPa), 200% elongation	
3.6.26.2	12 days at 140 °F (60 °C) in AMS2629, Type I		
	Class B	300 psi (2068 kPa), 250% elongation	
	Class C	250 psi (1724 kPa), 200% elongation	
3.6.26.3	72 hours at 140 °F (60 °C) in AMS2629, Type I + 72 hours at 120 °F (49 °C) in Air + 7 days at 250 °F (121 °C) in Air		
	Class B	400 psi (2758 kPa), 150% elongation	
	Class C	N/A	
3.6.26.4	Standard Heat Cycle as in 4.5.1.3		
	Class B	250 psi (1724 kPa), 50% elongation	
	Class C	N/A	

TABLE 1 - PROPERTIES (CONTINUED)

Paragraph	Property	Requirement	Test Procedures (Paragraph)
3.6.27	Shear Strength (Class C only), min	150 psi (1034 kPa), 100% cohesive failure	AS5127/1 (7.8)
3.6.28	Corrosion Test	No corrosion under sealant or signs of deterioration	AS5127/1 (7.9)
3.6.29	Peel Strength, min	20 lbf/inch (3580 N/m) /100% cohesive failure	AS5127/1 (8.1)
3.6.30	Repairability, min	10 lbf/inch (1750 N/m) /100% cohesive failure	AS5127/1 (8.2)
3.6.31	Storage Stability		
3.6.31.1	Accelerated Storage		AS5127/1 (9.1)
	Viscosity of Base Compound	Same as 3.6.3	
	Flow	Same as 3.6.5	
	Application Time	Same as 3.6.6	
	Assembly Time	Same as 3.6.7	
	Tack Free Time	Same as 3.6.8	
	Standard Cure Time	Same as 3.6.9	
	Peel Strength, min: Aluminum panels, Sulfuric acid anodized in accordance with AMS2471 and coated with AMS-C-27725, Type II, Class B (See 8.7) 2 panels in AMS2629 Type I; 2 panels in AMS2629 Type I/ 3% saltwater; all at 140 °F (60 °C) for 7 days.	20 lbf/inch (1750 N/m) /100% cohesive failure	AS5127/1 (8.1)
3.6.31.2	Long Term Storage		
	Application Time, min	Same as 3.6.6	AS5127/1 (9.2)
	Tack-Free Time, min	Same as 3.6.8	
	Standard Cure Time, hours, max,	Same as 3.6.9	

Note 1: Two cartridges of freshly mixed Class B-2 sealing compound shall be held at Standard Conditions to be tested for Flow, Application Time, Tack-Free Time, and Standard Cure Time. These tests shall be run concurrently during the mixing/freezing process.

Note 2: Class B-2 shall be tested using sealing compound which has been freshly mixed, then quick-frozen and thawed in accordance with AS5127/1 (4.4).

Note 3: Does not apply for longer work life sealants including Classes C-8(24); C-12(48); C-48(168); C-96(336)

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for Inspection

Shall be in accordance with AS5502 (4.1).

4.1.1 Source Inspection (NADCAP)

Shall be in accordance with AS5502 (4.1.1).

4.1.2 Sampling

Shall be in accordance with AS5502 (4.1.2).

4.2 Classification of Tests

Shall be in accordance with AS5502 (4.2).

4.2.1 Qualification Tests

All technical requirements listed in Table 1 are qualification tests (See 8.2) and shall be performed prior to or on the initial shipment of sealing compound to a purchaser, when a change in ingredients and/or processing requires reapproval as in 4.4.2, and when purchaser deems confirmatory testing to be required.

4.2.1.1 Qualification

All products sold to this specification shall be listed, or approved for listing, on the qualified products list, PRI QPL AMS3269. The qualified products list shall be in accordance with PD 2000. Class B-2 shall be the first material that is qualified for each supplier of sealing compound in accordance with 8.2. Class B-2 sealing compound shall be tested for, and shall meet all technical requirements of this specification with the exception of requirements unique to other classes of the sealing compound.

4.2.1.2 Once qualification for Class B-2 has been obtained, other classes of the sealing compound may be qualified. The formulation for other classes, and for other Class B application times, shall be the same as Class B-2, except for minor variations necessary for conformance to viscosity and application time requirements. All compounds shall meet all technical requirements of this specification. However, other classes of the sealing compound need only to be tested to the initial acceptance tests listed in 4.2.2, plus all peel tests listed in Table 3, or as defined by purchaser or QPL agency.

4.2.2 Initial Acceptance Tests

Initial acceptance tests of individual batches shall consist of the following as shown in Table 2:

TABLE 2 - ACCEPTANCE TESTS

Property	Requirement Paragraph
Nonvolatile Content	(3.6.1)
Viscosity of Base Compound (See Note 1)	(3.6.3)
Viscosity of the Curing Agent (See Note 2)	(3.6.4)
Flow	(3.6.5)
Application Time	(3.6.6)
Assembly Time (Class C only)	(3.6.7)
Tack-Free Time	(3.6.8)
Standard Cure Time	(3.6.9)
14-Day Hardness	(3.6.11)
Shear Strength (Class-C only)	(3.6.27)
Peel Strength (2 aluminum panels, AMS4045, sulfuric acid anodized in accordance with AMS2471, coated with AMS-C-27725 Type II Class B corrosion preventive coating (See 8.7), and aged in AMS2629, Type I for 7 days at 140 °F (60 °C).	(3.6.29)

Note 1. Acceptance testing of Viscosity of Base Compound shall be conducted on material in 1-quart or 1-liter cans regardless of type of packaging being procured.

Note 2. Testing viscosity of curing agent need not be performed in sectionalized containers of small size, less than 8-ounces (235-mL)

4.2.3 Final Acceptance Tests

Acceptance tests of the final packaged product shall consist of the following as shown in Table 3:

TABLE 3 - ACCEPTANCE TESTS

Property	Requirement Paragraph
Air Content	(3.6.2)
Application Time	(3.6.6)
Tack-Free Time	(3.6.8)
Standard Cure Time	(3.6.9)

4.3 Sampling and Testing

Shall be in accordance with AS5502 (4.3).

4.3.1 Acceptance Tests

Shall be in accordance with AS5022 (4.3.1).

4.3.1.1 Batch and Lot

A batch shall be defined as the quantity of material run through a mill or mixer at one time. A lot shall be defined as material from one batch of each component assembled (packaged) as finished product in one size and/or type of container at the same time. The lot, when used, shall be traceable to the batches of base compound and curing agent.

4.3.1.2 Initial and Final Acceptance Tests

Each batch shall be subjected to both initial and final acceptance testing. Sufficient material for initial acceptance testing shall be packaged in the same type containers that are being procured. Initial acceptance tests are those listed in 4.2.2. After successful completion of the initial acceptance tests, the batch shall be released for final packaging. During packaging, test kits shall be selected at random for final acceptance testing. Final acceptance testing is to be conducted on the final packaged product and consist of those tests outlined in 4.2.3.

4.3.1.3 If the batch is being packaged in different type and/or size containers, the final acceptance tests shall be conducted on each type and/or each size containers. If the sealing compound is being procured under different purchase orders, but the purchase orders call for the same type and size containers, it is only necessary to conduct the final acceptance tests one time.

4.3.1.4 Plastic Injection Kits

Shall be in accordance with AS5502 (4.3.1.3).

4.3.1.5 Cans, Pails, and Drums

Shall be in accordance with AS5502 (4.3.1.4).

4.3.1.6 Both Type Containers

Shall be in accordance with AS5502 (4.3.1.5).

4.3.2 Statistical Sampling Plan

When a statistical sampling plan has been agreed upon by the purchaser and supplier, sampling shall be in accordance with such plan in lieu of sampling as in 4.3.3 and the report for 4.7 shall state that such plan was used.

4.3.3 Qualification Test Samples

Samples should consist of one 5-gallon (19-L) pail of base compound with one 1-gallon (4-L) pail of curing agent, two 1-quart (1-L) kits of sealing compound, three 1-pint (1/2-L) kits of sealing compound, 1-quart (1-L) container of curing agent, and two 1-pint (1/2-L) containers of adhesion promoter.

Samples shall be identified as specified herein and below:

SEALING COMPOUND, POLYSULFIDE (T) RUBBER, FOR FUEL TANK AND FUEL CELL CAVITIES, HIGH STRENGTH, FOR INTERMITTENT USE TO 360 °F (182 °C)
AMS3269C Class _____
MANUFACTURER'S IDENTIFICATION _____
BATCH/LOT NUMBER _____
DATE OF PACKAGING _____
SHELF LIFE EXPIRATION DATE _____
STORE BELOW 80 °F (27 °C)

4.3.4 Shelf Life Surveillance and Updating

4.3.4.1 Sampling

Shall be in accordance with AS5502 (4.1.2).

4.3.4.2 Testing

The following inspections shown in Table 4 are to be conducted for shelf life surveillance and updating:

TABLE 4 - SHELF LIFE TESTING

Test	Requirement Paragraph
Appearance	(3.1)
Viscosity of Base Compound (See Note 1)	(3.6.3)
Viscosity of Curing Agent (See Note 1)	(3.6.4)
Application Time	(3.6.6)
Tack-Free Time	(3.6.8)
Standard Cure Time	(3.6.9)
Peel Strength: two aluminum panels, AMS4045, sulfuric acid anodized in accordance with AMS2471, coated with AMS-C-27725 Type I Class B corrosion preventive coating (See 8.7), and aged in AMS2629 Type I for 7 days at 140 °F (60 °C).	(3.6.29)

Note 1. Not possible with sectional-type containers.

4.3.4.3 Tests are to be conducted in accordance with test methods outlined in this specification for acceptance tests. If the tests are being performed at the end of the stated shelf life to update the shelf-life of the sealing compound, and all tests are passed, the shelf life will be extended an additional three months. Up to three extensions will be allowed.

4.4 Approval

Shall be in accordance with AS5502 (4.4).

4.4.1 Purchaser Approval

Shall be in accordance with AS5502 (4.4.1).

4.4.2 Methods of Inspection

Shall be in accordance with AS5502 (4.4.2).

4.5 Test Methods

4.5.1 Standard Tolerances

Unless otherwise specified herein, standard tolerances of AS5127 (3.1) "Standard Tolerances" shall apply.

4.5.2 Standard Test Conditions

Standard laboratory conditions shall be as specified in AS5127 (4). Test specimens shall be prepared and immediately after completion of preparation, shall be placed under 77 °F (25 °C) and 50% ± 5 relative humidity to cure according to 4.5.10. Except as otherwise directed herein, tests shall be performed at conditions as in AS5127 (4).

4.5.3 Standard Heat Cycle

When directed herein, the Standard Heat Cycle to which sealant shall be exposed shall performed six times:

Standard Heat Cycle:
4 hours at 260 °F (127 °C), plus
40 minutes at 320 °F (160 °C), plus
1 hour at 360 °F (182 °C).

4.5.4 Preparation of Test Specimens

Test specimens shall be prepared in accordance with AS5127 (6).

4.5.4.1 Cleaning of Test Panels

Test panels shall be cleaned in accordance with AS5127 (6).

4.5.4.2 Preparation of Peel Strength Test Panels

Test panel configuration shall be in accordance with AS5127/1 (8.) "Peel Strength Properties" and (8.1) "Peel Strength Testing" and as in Figure 22 "Five-Inch Peel Specimen Configuration".

4.5.5 Preparation of Sealing Compound

Sealing compound shall be prepared in accordance with AS5127/1 (4.) "Preparation of Sealing Compound" and subparagraphs (4.1) "Qualification Testing", (4.2) "Acceptance Testing", (4.3) "Quick-Freezing of Sealing Compound", and (4.4) "Thawing of Quick-Frozen Sealing Compound".

4.5.6 Application of Adhesion Promoter

AMS4911, AMS5516, AMS-C-27725, MIL-PRF-85285 and MIL-PRF-85582 panels shall be treated with AMS3100 adhesion promoter in accordance with AS5127 (6.7) "Application of Adhesion Promoter".

4.5.7 Application of Sealing Compound

Unless otherwise specified herein, freshly mixed sealing compound shall be applied to test panels in accordance with AS5127 (6.8) "Application of Sealing Compound". For Class A material, a time equal to the application life shall be used between the three applications to permit release of solvents.

4.5.8 Curing of Sealing Compound

For Qualification testing, Class B-2 sealing compound shall be cured for 14 days at Standard Conditions. For other qualification classes and for Acceptance testing, Classes A and B sealing compounds shall be given an accelerated cure of 48 hours at Standard Conditions followed by 24 hours at 140 °F (60 °C). Class C sealing compound, accelerated cure shall be 48 hours at Standard Conditions, followed by the number of hours listed in Table 5 at 140 °F (60 °C) according to the sealing compound designation:

TABLE 5 - CLASS C ACCELERATED CURE TIMES

Sealing Compound	Hours at 140 °F (60 °C)
Class C-8(24)	24
Class C-12(24)	24
Class C-48(168)	168
Class C-96(336)	336

4.6 Test Procedures

Standard Test Methods are in accordance with AS5127 and AS5127/1. In the event of a conflict between the text of this document and AS5127 and/or AS5127/1, the text of this document takes precedence.

4.6.1 Resistance to Thermal Rupture

4.6.1.1 Resistance to Thermal Rupture shall be conducted in accordance with AS517/1 (7.2). The air circulating oven shall be preset at 300 °F (149 °C) and the clamp fixture shall be placed in the oven at 10 to 11 psi (69 to 76 kPa) for 30 minutes

4.6.2 Low Temperature Flexibility

4.6.2.1 Low Temperature Flexibility shall be conducted in accordance with AS5127/1 (7.6). At the end of the standard cure in accordance with AS5127 (4.1), two panels shall be immersed in AMS2629, Type I for 120 hours at 140 °F (60 °C) followed by 60 hours at 160 °F (70 °C) and 6 hours at 180 °F (80 °C). At the completion of the fluid exposure, the specimens shall be removed from the fluid. All four specimens shall be exposed to the standard heat cycle as in 4.5.3, after which all four panels shall be immediately placed in a low temperature fixture and tested in accordance with AS5127/1 (7.6).

4.6.3 Peel Strength

4.6.3.1 The type and quantity of panels listed in AMS3269, Table 6 shall be used for the evaluation of peel strength. All panels shall be 2.75 x 6 inches (69.8 x 152 mm). The thickness of the panels shall be as listed in Table 6. The panels shall be prepared in accordance with AS5127/1 (6.7). Sealing compound shall cover 5 inches (127 mm) of one side of the panel surface in accordance with AS5127/1 (Figure 22). When specified, AMS3100 adhesion promoter shall be applied per 4.5.6.