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INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE MATERIAL SPECIFICATION

SAE AMS-S-8802

Issued MAY 1999

Submitted for recognition as an American National Standard

Sealing Compound, Temperature Resistant, Integral Fuel Tanks and Fuel Cell Cavities, High Adhesion

FOREWORD

This document is based on MIL-S-8802F, Amendment 4.

1. SCOPE:

1.1 Form:

This specification covers temperature resistant, two component synthetic rubber compounds of the polysulfide type for sealing and repairing integral fuel tanks and fuel cell cavities, for continuous service use from -65 to +250 °F (-54 to 121 °C).

1.2 Application:

This sealing compound has been used typically for fuel tank sealing, cabin pressure sealing, and aerodynamic smoothing, but usage is not limited to such applications. It can be used for faying surface sealing, for wet-installation of fasteners, for overcoating fasteners, and for sealing joints and seams. The sealing compound can be used in fuel areas as well as in non-fuel areas. It may in some cases be used as a non-structural adhesive. It cures at room temperature and the cure can be accelerated by higher temperatures. AMS 3100 adhesion promoter can be applied prior to application of the 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 brush application. Available in the following application times in hours:

a. A-1/2
b. A-1
c. A-2

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1.3 (Continued):

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

a. B-1/2
b. B-1
c. B-2
d. B-4

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

a. C-12
b. C-20
c. C-80
d. C-96

1.4 Safety - Hazardous Materials:

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. Unless otherwise specified, the applicable issue of other publications shall be the issue in effect on the date of the purchase order.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 2471	Anodic Treatment of Aluminum Alloys, Sulfuric Acid Process, Undyed Coating
AMS 2629	Fluid, Jet Reference
AMS 3100	Adhesion Promoter, for Polysulfide Sealing Compounds
AMS 3276	Sealing Compound, Integral Fuel Tanks and General Purpose, Intermittent Use to 360 °F (182 °C)
AMS 3819	Cloths, Cleaning for Aircraft Primary and Secondary Structural Surfaces
AMS 4045	Aluminum Alloy Sheet and Plate, 5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (7075; -T6 Sheet/-T651 Plate), Solution and Precipitation Heat Treated
AMS 4049	Aluminum Alloy Sheet and Plate, Alclad, 5.6Zn - 2.5Mg - 1.6Cu - 0.23Cr (Alclad 7075; -T6 Sheet, -T651 Plate), Solution and Precipitation Heat Treated
AMS 4901	Titanium, Sheet, Strip and Plate, Annealed, 70,000 psi (485 Mpa) Yield Strength

2.1 (Continued):

AMS 5516	Steel, Corrosion Resistant, Sheet, Strip, and Plate, 18Cr - 9.0Ni, (SAE 30302) Solution Heat Treated
AS5127	Methods for Testing Aerospace Sealants (May, 1997. See 4.5.3.1)
AS5127/1	Methods for Testing Aerospace Sealants, Two-Component Synthetic Rubber Compounds (May, 1997. See 4.5.3.1)
AS7001	National Aerospace and Defense Contractors Accreditation Program (NADCAP) - Program Description
AS7002	National Aerospace and Defense Contractors Accreditation Program (NADCAP) - Rules for Implementation
AS7003	National Aerospace and Defense Contractors Accreditation Program (NADCAP) - Program Operation
AS7200/1	National Aerospace and Defense Contractors Accreditation Program (NADCAP) - Audit and Inspection Procedures and Checklists for the Sealant Manufacturers Accreditation Program
AS7201	National Aerospace and Defense Contractors Accreditation Program (NADCAP) - Requirements for Accreditation of Pass-Thru Distributors
AS7202	National Aerospace and Defense Contractors Accreditation Program (NADCAP) - Requirements for Accreditation of Value Added Distributors
PD 2000	Procedures for an Industry Qualified Product Management Process

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

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

2.3 U.S. Government Publications:

Available from DODSSP Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

PPP-C-96	Can, Metal, 28 Gage and Lighter
PPP-D-729	Drum, Shipping and Storage, Steel, 55 Gallon (208 Liters)
PPP-P-704	Pails, Metal: (Shipping, Steel, 1 through 12 Gallons)
MIL-S-8802	Sealing Compound, Temperature-Resistant, Integral Fuel Tanks and Fuel Cell Cavities, High Adhesion
MIL-P-23377	Primer Coatings: Epoxy, High Solids
MIL-C-27725	Coating, Corrosion Preventive, for Aircraft Integral Fuel Tanks
MIL-S-38714	Sealant Cartridge for Two Component Materials
MIL-C-81706	Chemical Conversion Materials for Coating Aluminum and Aluminum Alloys

3. TECHNICAL REQUIREMENTS:

3.1 Materials:

The basic ingredient used in the manufacture of these products shall be synthetic rubber of the polysulfide (T) type. The sealing compound shall cure by the addition of a curing agent to the base compound, and shall not depend on solvent evaporation for curing. The material shall contain no lead compounds or chromate compounds. 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.

3.2 Properties:

The sealing compound and the curing agent shall conform to the requirements shown in Table 1, when tested to the specified test methods.

3.3 Performance and Application Requirements:

Performance requirements define those properties of the cured sealant related to performance in service. Application requirements define those properties of the uncured sealant which affect the application parameters of the sealant, but have little or no effect on performance properties of the cured sealant. Minor variations in the Application requirements during quality conformance inspection such as receiving inspection tests, may not be cause for rejection if approved by the purchaser. Application requirements are listed below; all other properties are Performance requirements.

a. Viscosity of Base Compound
b. Flow
c. Application Time
d. Tack-Free Time
e. Cure Time
f. Fluid Immersion Cure Time

TABLE 1 - Properties

Paragraph	Property	Requirement	AS5127/1 Standard Test Method (paragraph)
3.3.1	Specific Gravity, max	1.65	(6.1)
3.3.2	Nonvolatile Content, by weight, min		(5.1)
	Class A	84%	
	Class B	92%	
	Class C	92%	
3.3.3	Viscosity of Base Compound		(5.3)
	Class A	100 to 500 poises (10 to 50 Pa·S)	Use No. 6 spindle at 10 RPM
	Class B	9000 to 14000 poises (900 to 1400 Pa·S)	Use No. 7 spindle at 2 RPM
	Class C	1000 to 4000 poises (100 to 400 Pa·S)	Use No. 6 spindle at 2 RPM
3.3.4	Flow		
	Class B	0.1 to 0.75 inch (2.5 to 19.1 mm)	(5.5.1)
	Class C	0.010 inch (0.25 mm) min	(5.5.2)
3.3.5	Application Time, min		
3.3.5.1	Class A - From beginning of mixing, the viscosity shall not exceed 2,500 poises (250 Pa·s)		(5.6.1) Use No. 7 spindle at 10 rpm
	A-1/2	1/2 hour	
	A-1	1 hour	
	A-2	2 hours	

TABLE 1 - Properties (Continued)

Paragraph	Property	Requirement	AS5127/1 Standard Test Method (paragraph)
3.3.5.2	Class B - From beginning of mixing, 15 grams per minute (minimum) shall be extruded		(5.6.2)
	B-1/2	1/2 hour	
	B-1	1 hour	
	B-2	2 hours	
	B-4	4 hours	
3.3.5.3	Class C - From beginning of mixing, 30 grams per minute (minimum) shall be extruded		(5.6.2)
	C-12	4 hours	
	C-20	8 hours	
	C-80	8 hours	
	C-96	8 hours	
3.3.6	Assembly Time (or Squeeze-out Time), min		(5.7)
	Class C-12	12 hours	
	Class C-20	20 hours	
	Class C-80	80 hours	
	Class C-96	96 hours	
3.3.7	Tack-free Time (Measured from beginning of mixing) Max		(5.8)
	Class A-1/2	10 hours	
	Class A-1	20 hours	
	Class A-2	40 hours	
	Class B-1/2	10 hours	
	Class B-1	20 hours	
	Class B-2	40 hours	
	Class B-4	48 hours	
	Class C-12	No requirement	
	Class C-20	96 hours	
	Class C-80	120 hours	
	Class C-96	No requirement	

TABLE 1 - Properties (Continued)

Paragraph	Property	Requirement	AS5127/1 Standard Test Method (paragraph)
3.3.8	Standard Cure Time, Max (30 Durometer A, min)		(5.9)
	Class A-1/2	40 hours	
	Class A-2	72 hours	
	Class B-1/2	30 hours	
	Class B-1	55 hours	
	Class B-2	72 hours	
	Class B-4	90 hours	
3.3.9	Fluid Immersion Cure Time, min (Class A-1/2 and B-1/2 only)		(5.11)
	After 48 hours	25 Durometer A	
	After 120 hours	35 Durometer A	
3.3.10	Peel Strength, min /100% cohesive failure		(8.1) and Table 4
3.3.10.1	Class A and B:		
	After 7 day exposure	20 lbf/inch (3580 N/m)	
	After 70 day exposure	7 lbf/inch (1250 N/m)	
3.3.10.2	Class C:		
	After 7 day exposure	15 lbf/inch (2685 N/m)	
	After 70 day exposure	7 lbf/inch (1250 N/m)	
3.3.10.3	Classes A-1/2 and B-1/2 only	10 lbf/inch (1750 N/m)	(8.1.3)
3.3.10.4	Repairability, min /100% cohesive failure	10 lbf/inch (1750 N/m)	(8.2) on itself and AMS 3276
3.3.11	Chalking, max Use AMS 2629 Type II JRF	Slight chalking	(7.1)

TABLE 1 - Properties (Continued)

Paragraph	Property	Requirement	AS5127/1 Standard Test Method (paragraph)
3.3.12	Shear Strength (Class C only), min, /95% cohesive failure	200 psi (1379 kPa)	(7.8)
3.3.13	Air Content, (Class B only), max	4%	(5.2)
3.3.14	Weight Loss and Flexibility		(7.4)
3.3.14.1	Weight Loss, max	8%	
3.3.14.2	Flexibility	No cracking or checking	
3.3.15	Resistance to Thermal Rupture	No blistering or spong-ing, 0.125 inch (3 mm) deformation, max	(7.2)
3.3.16	Tensile Strength and Elongation, (Class B only) min		(7.7)
3.3.16.1	Standard Cure	200 psi (1380 kPa), 200% elong.	
3.3.16.2	After 14 days immersion in AMS 2629, Type I JRF at 140 °F (60 °C)	50 psi (345 kPa), 200% elong.	
3.3.16.3	After 7 days at 250 °F ± 5 (121 °C ± 3)	125 psi (862 kPa), 100% elong.	
3.3.16.4	After 72 hour immersion in AMS 2629, Type I JRF at 140 °F (60 °C), followed by 72 hour air-drying at 120 °F (55 °C) followed by 7 days air-aging at 250 °F ± 5 (121 °C ± 3)	200 psi (1380 kPa), 75% elong.	
3.3.16.5	After 24 hour at 250 °F ± 5 (121 °C ± 3), followed by 7 days immersion in AMS 2629, Type I JRF at 140 °F (60 °C)	100 psi (690 kPa), 150% elong.	

TABLE 1 - Properties (Continued)

Paragraph	Property	Requirement	AS5127/1 Standard Test Method (paragraph)
3.3.17	Low Temperature Flexibility	No visual evidence of cracking or checking. No loss of adhesion	(7.6)
3.3.18	Hydrolytic Stability, min	30 Durometer A	(6.6)
3.3.19	Corrosion	No signs of corrosion or deterioration	(7.9)
3.3.20	Radiographic Density		(6.3)
3.3.20.1	Difference between plate and plate sealant, max	1.00	
3.3.20.2	Through sealant in the slot, approximately	3.00	
3.3.21	Storage Stability		
3.3.21.1	Accelerated Storage		(9.1)
	Appearance	No skinning, hardening or separation that cannot be restored by normal agitation	
	Flow	Same as 3.3.4	
	Application Time	Same as 3.3.5	
	Assembly Time	Same as 3.3.6	
	Tack-Free Time	Same as 3.3.7	
	Standard Cure Time	Same as 3.3.8	
	Peel Strength, MIL-C-27725 Type II Class B (see 8.5) coated panels After 7 days immersion in AMS 2629, Type I JRF at 140 °F (60 °C)	Same as 3.3.10	
3.3.21.2	Long-Term Storage		(9.2)

TABLE 1 - Properties (Continued)

Paragraph	Property	Requirement	AS5127/1 Standard Test Method (paragraph)
3.3.21.2.1	Appearance	No skinning, hardening or separation that cannot be restored by normal agitation	
3.3.21.2.2	Application Time, hours, min		
	Class A-1/2	1/2	
	Class A-1	1	
	Class A-2	2	
	Class B-1/2	1/2	
	Class B-1	1	
	Class B-2	2	
	Class B-4	4	
	Class C-12	8	
	Class C-20	8	
	Class C-80	8	
	Class C-96	8	
3.3.21.2.3	Tack-Free Time, hours, max		
	Class A-1/2	16	
	Class A-1	30	
	Class A-2	64	
	Class B-1/2	16	
	Class B-1	30	
	Class B-2	64	
	Class B-4	72	
	Class C-12	No requirement	
	Class C-20	144	
	Class C-80	184	
	Class C-96	No requirement	
3.3.21.2.4	Standard Cure Time, hours, max		
	Class A-1/2	64	
	Class A-1	78	
	Class A-2	112	
	Class B-1/2	45	
	Class B-1	78	
	Class B-2	112	
	Class B-4	136	

3.4 Quality:

The sealing compound and the curing agent (accelerator), as received by purchaser, shall be of uniform blend, and shall be free of excessive air, skins, lumps, and gelled or coarse particles. There shall be no separation of ingredients that cannot be readily dispersed.

3.5 Shelf Life:

Material shall be capable of meeting all the requirements of this specification after storage in original unopened package at 80 °F or lower for 9 months from date of packaging.

3.5.1 Date of Packaging: Date of Packaging is defined as the date finished material is assembled from its components, base compound and curing agent, into a package and labeled kit or unit by the manufacturer or repackager. Date of Packaging shall be no more than 90 days from the last day of full quality conformance testing in accordance with 4.3.3. Material may be retested by the manufacturer at any time to determine conformance to full quality conformance testing in accordance with 4.4.2.

3.5.2 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 Qualification:

All products sold to this specification shall be listed, or approved for listing on the qualified products list, PRI QPL AMS-S-8802. The qualified products list shall be in accordance with PD 2000.

4. QUALITY ASSURANCE PROVISIONS:

4.1 Responsibility for Inspection:

The manufacturer of the sealing compound shall supply all samples and shall be responsible for performing all required tests. Purchaser reserves the right to sample and to perform any confirmatory testing deemed necessary to ensure that the sealing compound conforms to the requirements of this specification.

4.1.1 Source Inspection: Material procured under this specification shall be third party approved prior to shipment, to ensure that material meets acceptance tests (4.3.3). Third party approval shall be by a third party accreditation process in accordance with AS7001, AS7002, AS7003, and AS7200/1. Sealant shall be from a manufacturer that currently holds a third party accreditation and shall be from a batch of material that has been third party source inspected in accordance with AS7200/1. Distributors supplying sealant shall supply material from an accredited manufacturer and from a batch of material that has been third party source inspected. Distributors shall also be third party accredited in accordance with AS7201 or AS7202, whichever is applicable.

NOTE—4.4.2 requires the sample for quality conformance tests be packaged and mixed as much as practical in the same containers that are being procured.

4.1.2 Shelf Life Surveillance and Updating:

4.1.2.1 Sampling: The minimum number of samples to be tested during shelf-life surveillance and updating is shown in Table 2.

TABLE 2 - Sampling

Items in Stock	Samples to be Tested
Up to 100, excl	3
100 to 500, incl	5
Over 500	7

4.1.2.2 Testing: The following inspections are to be conducted for shelf-life surveillance and updating:

a. Appearance
b. Application Time
c. Tack-Free Time
d. Standard Cure Time
e. Viscosity of Base Compound (not possible with sectional-type containers)
f. Peel Strength - two aluminum panels coated with MIL-C-27725 Type II Class B corrosion preventive coating (See 8.5), age in AMS 2629, Type I JRF for seven days at 140 °F (60 °C).

4.1.2.2.1 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.

4.1.3 Curing Agent Replacement: There may be instances when the mixed sealant requires excessive time to cure. Occasionally, the curing agent is found to have deteriorated. It may be possible to replace the curing agent so that the base compound can be used. Whenever the curing agent is replaced, all acceptance tests must be met by the final curing agent/base compound combination.

4.2 Classification of Tests:

4.2.1 Qualification Tests: All technical requirements are qualification tests (See 8.1) and shall be performed prior to 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 Class B-2 shall be the first material that is qualified for each supplier of sealing compound (See 8.1). Class B-2 sealing compound shall meet all technical requirements of this specification with the exception of requirements applicable to other classes.

4.2.1.2 Once qualification for Class B-2 is obtained, other classes may be qualified. The formulation for other classes, and for other Class B materials, shall be the same as Class B-2, except for minor variations necessary for conformance to viscosity and application time requirements. Qualification tests for other classes shall at a minimum consist of all acceptance tests (4.3.3) plus all peel strength tests listed in Table 4.

4.2.1.3 The manufacturer shall present written proof to the purchaser that all requirements are met prior to requesting qualification approval for any class. This includes assurance that the sealant will cure at standard conditions. Acceptance testing is conducted on sealant cured at 140 °F (60 °C). After the sealing compound has been accepted for qualification, approval will be granted and the sealant will be identified by reference to the manufacturer's code or formula number.

4.2.2 Qualification Test Samples: Samples shall consist of eight 1 quart (1 L) kits and three 1 pint (1/2 L) kits of sealing compound upon which qualification is desired. Samples shall be identified as specified herein and forwarded to the activity responsible for qualification testing as designated in the letter of authorization from that activity (See 8.1).

Samples for qualification tests:

SEALING COMPOUND, TEMPERATURE RESISTANT, Integral Fuel Tanks and Fuel Cell Cavities, High Adhesion
Class and Dash Number
AMS-S-8802
Manufacturer's Code Number
Name of Manufacturer
Submitted by (name) (date) for qualification tests in accordance with AMS-S-8802 under authorization (reference authorizing letter)
Mixing instructions

4.3 Acceptance Tests:

4.3.1 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.

4.3.2 Contractor 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 4.3.3. Final acceptance testing is to be conducted on the final packaged product and consists of Application Time, Tack-Free Time, Standard Cure Time, and Air Content (Class B only), premixed and frozen material excluded.

4.3.2.1 Sampling for Initial Acceptance Tests: The sample material shall be packaged for the initial acceptance testing in the same type containers that are being procured.

4.3.2.1.1 Plastic Injection Kits: If material is being procured in plastic injection kits, such as those conforming to MIL-P-38714, all tests shall be conducted on material that has been packaged and mixed in the initial sample injection kits except for Viscosity of Base Compound. During filling of initial sample kits, base compound and curing agent shall be placed in 1-quart (1-L) cans for the viscosity tests. If more than one size of injection kits are to be packaged from a particular batch, it is necessary to test material from only one size kit.

4.3.2.1.2 Cans, Pails, and Drums: If the material is being procured in cans, pails, or drums, the batch shall be tested on material placed in 1-quart (1-L) cans.

4.3.2.1.3 Both Type Containers: If the material is being procured in both types of containers, the initial acceptance tests shall be conducted on material packaged in plastic injection kits.

4.3.2 Sampling for Final Acceptance Tests: After successful completion of initial acceptance tests, the batch shall be released for final packaging. During packaging, test kits shall be picked at random to perform the following final acceptance tests:

a. Application Time (3.3.5)
b. Tack-Free Time (3.3.7)
c. Standard Cure Time (3.3.8)
d. Air Content (Class B only) (3.3.13)

4.3.3 Acceptance Tests: Acceptance tests of individual batches shall consist of the following:

a. Nonvolatile Content (3.3.2)
b. Viscosity of Base Compound[1] (3.3.3)
c. Flow (Classes B and C only) (3.3.4)
d. Application Time (3.3.5)
e. Assembly Time (Class C only) (3.3.6)
f. Tack-Free Time (3.3.7)
g. Standard Cure Time (Classes A and B only) (3.3.8)
h. Fluid Immersion Time (Classes A-1/2 and B-1/2 only (3.3.9)
i. Resistance to Thermal Rupture (Fluid Immersed only)[2] (3.3.15)
j. Shear Strength (Class C only)[2] (3.3.12)
k. Peel Strength (4 aluminum panels, AMS 4045, sulfuric acid anodized in accordance with AMS 2471 and coated with MIL-C-27725 Type II Class B only (See 8.5) (7 day immersion only). Do not use AMS 3100 adhesion promoter.[2] (3.3.10)
l. Chalking[2] (3.3.11)
m. Air Content (Class B only) (3.3.13)

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.
2. In lieu of 14-day cure specified, specimens shall be subjected to an accelerated cure of 48 hours at standard conditions followed by 24 hours at 140 °F (60 °C). Class C-80 shall be cured 48 hours at standard conditions followed by 48 hours at 140 °F (60 °C).

4.4 Approval:

4.4.1 Sealing compound supplied to this specification shall be listed, or approved for listing, on the qualified products list, PRI QPL AMS-S-8802.

4.4.2 Manufacturer shall use ingredients, manufacturing procedures, processes, and methods of inspection on production product which are essentially the same as those used on the approved sample. If necessary to make any change in ingredients, in type of equipment for processing, or in manufacturing procedures, manufacturer shall submit for reapproval a statement of the proposed changes in ingredients and/or processing and, when requested, sample product. Production product made by the revised procedure shall not be shipped prior to receipt of reapproval.

4.5 Test Methods:

4.5.1 Standard Conditions: Standard laboratory conditions shall be 77 °F ± 2 (25 °C ± 1) and 50% ± 5 relative humidity. Except as otherwise specified herein, all test specimens shall be cured under these conditions. Test specimens shall be prepared at 77 °F ± 5 (25 °C ± 3) and immediately upon completion of preparation, shall be placed into standard conditions for cure. Except as otherwise specified herein, tests shall be performed at 77 °F ± 5 (25 °C ± 3).

4.5.1.1 Standard Tolerances: Unless otherwise specified herein, standard tolerances of AS5127 under (3.1) “Standard Tolerances” shall apply.

4.5.2 Preparation of Test Specimens: Test panel configuration shall be in accordance with AS5127/1 under (8.) “Peel Strength Properties” and (8.1) “Peel Strength Testing” and as in figures for either (Figure 23) “Four-Inch Peel Specimen Configuration” or (Figure 22) “Five-Inch Peel Specimen Configuration”.

4.5.2.1 Cleaning of Test Panels: Test panels shall be cleaned in accordance with Table 3 and methods in accordance with AS5127.

NOTE—When organic coatings are specified for the test panels, the coatings shall be fully cured as defined by the applicable coating specification before cleaning. The applied coatings shall be at least 14 days old and a maximum of 6 months old stored at ambient indoor temperatures.

TABLE 3 - Cleaning of Test Panels

Panel Material	Cleaning Method, AS5127 (paragraph)
Aluminum alloy, chemical conversion coating test surface	(6.1) “Chemical Conversion Coating Application”, including subparagraphs: (6.1.1) “Preparation of Aluminum Panel Test Surfaces” (6.1.2) “Chemical Conversion Coating” (6.1.2.1) “Panel Preparation” (6.1.2.2) “Coating Application (Immersion)”
Aluminum alloy, sulfuric acid anodized	(6.1.1) “Preparation of Aluminum Panel Test Surfaces”
AMS 5516 Stainless steel	(6.3) “Preparation of AMS 5516 Stainless Steel Panel Test Surfaces”
AMS 4901 Titanium alloy	(6.4) “Preparation of AMS 4901 Titanium Panel Test Surfaces”
Aluminum alloy, MIL-C-27725 Type II Class B (See 8.5) test surface	(6.2.1.1) “Cleaning of MIL-C-27725 Surface for Sealing”
Graphite epoxy composite AS4/3501-6	(6.5.1) “Cleaning of AS 4/3501-6, IM7/5250-4 and Other Composite Surfaces”
Aluminum alloy, MIL-P-23377 test surface	(6.2.2) “Cleaning of MIL-P-23377 Surface for Sealing”

4.5.2.2 Curing of the Sealing Compound: Shall be tested in accordance with AS5127 under (6.9) “Curing of the Sealing Compounds”. For qualification testing, the sealing compound shall be cured for 14 days at Standard Conditions. For Acceptance testing, the sealing compound shall be given an accelerated cure for 48 hours minimum at Standard Conditions followed by 48 hours at 140 °F (60 °C).

4.5.3 Standard Test Methods: Standard Test Methods are in accordance with 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.

4.5.3.1 Future Revisions of AS5127 and AS5127/1: Use of a specific issue of AS5127 and of AS5127 is for clarity. Future revisions of AS5127 and AS5127/1, when published, may be used providing test methods correspond in kind to those of the issues listed in 2.1.

NOTE—The coating should not be more than 48 hours old before sealant application.