

INCH-POUND

MIL-S-8802F  
AMENDMENT 4  
20 January 1995  
SUPERSEDING  
AMENDMENT 3  
3 May 1993

**MILITARY SPECIFICATION**

**SEALING COMPOUND, TEMPERATURE-RESISTANT,  
INTEGRAL FUEL TANKS AND FUEL CELL CAVITIES, HIGH ADHESION**

This amendment forms a part of MIL-S-8802F, dated 7 March 1990, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.2.a.(1): Delete "Type I – Dichromate cured sealing materials" and substitute "Type I – Cancelled; Type II is authorized for all previous uses of Type I".

PAGE 2

1.2.2: Delete the first sentence.

PAGE 3

\* 2.2: Add the following:

"AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA (AIA)

NAS 679                      Nut, Self-Locking, Hexagon – Low Height

(Application for copies should be addressed to Aerospace Industries Association of America, Inc. (AIA), 1250 Eye Street NW, Washington DC 20005; telephone (202) 371-8400.)"

AMSC N/A

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2.2: Add the following below “SOCIETY OF AUTOMOTIVE ENGINEERS (SAE)”:

“AS 7001	National Aerospace and Defense Contractors Accreditation Program (NADCAP) Program Description
AS 7002	National Aerospace and Defense Contractors Accreditation Program (NADCAP) Rules for Implementation
AS 7003	National Aerospace and Defense Contractors Accreditation Program (NADCAP) Program Operations
AS 7100/1	National Aerospace and Defense Contractors Accreditation Program (NADCAP) Survey Checklist for the NDT Suppliers Accreditation Program
AS 7200/1	National Aerospace and Defense Contractors Accreditation Program (NADCAP) Audit and Inspection Checklists for the Sealant Manufacturers Accreditation Program
AS 7201	National Aerospace and Defense Contractors Accreditation Program (NADCAP) Requirements for Accreditation of Pass-Thru Distributors
AS 7202	National Aerospace and Defense Contractors Accreditation Program (NADCAP) Requirements for Accreditation of Value Added Distributors”.

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3.4.1: Delete and substitute:

“3.4.1 Specific gravity. When tested in accordance with 4.8.1, the specific gravity of the cured sealing compound shall not be more than 1.65 for Type II at standard conditions (see 4.5).”

3.4.2, line 4: Delete “Type I – 90 percent by weight”.

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3.4.9, line 2: Delete “30” and substitute “35”.

PAGE 11

TABLE IV: Delete “Type I” portion of table and substitute “Type II”.

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TABLE V: Delete “Type I” portion of table and substitute “Type II”.

\* After 3.5 and before 4., insert:

“3.6 Shelf life. Packaged material shall have a minimum shelf life of 9 months from date of packaging when stored unopened at 80°F or lower.

3.6.1 Date of packaging. The date of packaging is defined as the date the finished material is assembled from its components (base compound and curing compound) into a packaged and labelled kit or unit by the sealant manufacturer. Date of packaging shall be no more than 90 days from the last day of full quality conformance testing in accordance with 4.4.3. Material may be retested by the sealant manufacturer at any time to determine conformance to full quality conformance testing in accordance with 4.4.3. Repackagers shall not change the date of packaging, but use the date of packaging as recorded by the sealant manufacturer.

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

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4.1.2: Delete and substitute:

“4.1.2 Source inspection. Materials procured by the Government under this specification shall be third party approved prior to shipment, to assure that the material meets the quality conformance tests (4.4.3). The third party approval shall be by a third party accreditation process in accordance with AS 7001, AS 7002, AS 7003, and AS 7200/1. Sealant manufactured to this specification 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 AS 7200/1. Distributors supplying sealant to this specification 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 AS 7201 or AS 7202, whichever is applicable. Note that 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.”

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\* 4.3.1, line 2: Delete “tree” and substitute “three”.

\* Delete 4.4.1 and substitute:

“4.4.1 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 compound(s).”

4.4.2: Delete last sentence and substitute “Final quality conformance testing is to be conducted on the final packaged product and consists of application time, tack-free time, standard curing rate, and air content (Class B only, premixed and frozen material excluded).”

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4.4.2.3: Delete.

PAGE 17

4.4.3 1.(2): Delete.

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4.5 Delete and substitute:

“4.5 Test conditions. Standard laboratory conditions are 77°F ± 2°F (25°C ± 1°C) and 50 ± 5 percent relative humidity. Unless otherwise specified, all test specimens shall be cured under these conditions and all tests shall be performed at 77°F ± 2°F (25°C ± 1°C).”

4.6.2.2, line 1: Delete and substitute:

“4.6.2.2 Special cleaning of graphite epoxy and titanium panels. The graphite epoxy and titanium panels shall be cleaned by first solvent wiping with MIL-C-38736 cleaner.”

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4.6.6.1: Delete last sentence.

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4.8.5.1: Delete sentence 2.

4.8.5.1, line 13: Insert “At this point the fixture must be at standard conditions (4.5) and kept there for the duration of the test.” after “forward travel.”

4.8.5.2, sentence 2: Delete and substitute “Immediately place the panel at standard conditions (4.5) in a vertical position and allow to stand for a period equivalent to the rated tack-free time (see 3.4.8).”

4.8.6.1, sentences 1 and 2: Delete and substitute “The base compound and accelerator shall stabilize at standard temperature for at least 8 hours before a sample of base compound is mixed with the proper amount of accelerator sufficient to fill a standard  $\frac{1}{2}$ -pint can (1.3 liter)  $2\frac{7}{8}$  inches in diameter by  $2\frac{7}{8}$  inches high (73 mm by 73 mm) to within  $\frac{1}{2}$  inch (10 mm) of top. This can shall be tightly covered with the original can lid, except when testing the viscosity.”

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4.8.6.2, sentence 1: Delete and substitute “The base compound, accelerator, and application gun shall stabilize at standard temperature for at least 8 hours before a minimum of 250 grams of base compound are mixed with the proper amount of accelerator.”

4.8.7, sentence 5: Delete and substitute “Apply approximately 0.015 inches (0.40 mm) of freshly mixed sealant to the drilled end of the specimens and allow to cure at standard conditions (4.5) for  $\frac{1}{2}$  hour.”

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4.8.10, line 4: Delete “ $\frac{1}{8}$ -inch (3 mm)” and substitute “ $\frac{1}{4}$  inch (6 mm)”.

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4.8.20, line 5: Delete “with 4.8.5, 4.8.6, 4.8.7, and 4.8.8” and substitute “with 4.8.5, 4.8.6, 4.8.7, 4.8.8, and 4.8.9”.

4.8.20, line 5: Delete “Two QQ-A-250/13 aluminum-alloy peel panels” and substitute “Two QQ-A-250/12, T6 sulfuric acid anodized in accordance with MIL-A-8625, Type II, Class 1, coated with MIL-C-27725 peel panels”.

PAGE 32

4.8.22, subpara 3, sentence 1: Delete and substitute “Fill base compound into cartridge being careful not to introduce air.”

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\* 5.1.1.1.1, line 7: Delete “PPP-D-729, Type III” and substitute “PPP-D-729, Type IV”.

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\* Delete 5.3 and substitute:

“5.3 Marking of shipment

5.3.1 Non-premixed/non-frozen packages. In addition to any special marking required by the contract, interior packages and exterior shipping containers shall be marked in accordance with MIL-STD-129. Marking shall include specification number, applicable class and dash number, name of manufacturer, date of packaging (month and year), shelf life expiration date (month and year), lot number or batch number(s), mixing instructions, and ‘STORE BELOW 80°F (26°C).’.

5.3.2 Premixed/frozen packages. In addition to any special marking required by the contract, markings on premixed/frozen cartridges shall include specification number, applicable class and dash number, name of manufacturer, date of mix/freeze (month, day, and year), lot number or batch number(s), and ‘DISCARD OR RETEST 30 DAYS FROM MIX/FREEZE DATE WHEN STORED AT -40°F OR LOWER, OR 10 DAYS FROM MIX/FREEZE DATE WHEN STORED BETWEEN -40°F TO -10°F.’ ”.

NOTE: The margins of this amendment are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

Custodians:

Army – MR

Navy – AS

Air Force – 11

Preparing activity:

Air Force – 11

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Review activities:

Army – MI, AR, AT

Navy – SH, OS

Air Force – 84, 99

DNA – DS