

AEROSPACE MATERIAL SPECIFICATION

SAE

AMS 3376A

Issued 1 JUL 1985
Revised 1 JUL 1992
Superseding AMS 3376

Submitted for recognition as an American National Standard

SEALING COMPOUND, NON-CURING, GROOVE INJECTION Temperature and Fuel Resistant

1. SCOPE:

1.1 Form:

(R)

This specification covers a permanently mastic fluorosilicone compound in the form of a paste.

1.2 Application:

This product has been used typically for sealing or resealing integral fuel tanks designed for groove-injection type sealing for use from -65 to +360 °F (-54 to +182 °C), but usage is not limited to such applications.

1.3 Classification:

Sealing compounds covered by this specification are classified as follows:

Class 1 - High viscosity, permanently mastic, fuel resistant, fluorosilicone paste compound suitable for sealing applications with structural mismatch of 0.005 inch (0.13 mm) or less. Normally contains glass bead filler material.

Class 2 - Medium viscosity, permanently mastic, fuel resistant, fluorosilicone paste compound suitable for sealing applications with structural mismatch of 0.005 inch (0.13 mm) or less. Normally contains glass bead filler material.

Class 3 - High viscosity, permanently mastic, fuel resistant, fluorosilicone paste compound suitable for sealing applications with structural mismatch of 0.015 inch (0.38 mm) or less. Normally contains cured fluorosilicone rubber particles.

SAE Technical Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

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 precautionary 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. 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, Aluminum Alloys, Sulfuric Acid Process, Undyed Coating

AMS 2629 Jet Reference Fluid

AMS 2825 Material Safety Data Sheets

AMS 3660 Polytetrafluoroethylene Moldings, As Sintered, General Purpose Grade

AMS 3819 Cloths, Cleaning for Aircraft Primary and Secondary Structural Surfaces

AMS 4035 Aluminum Alloy Sheet and Plate, 4.4Cu - 1.5Mg - 0.60Mn (2024-0), Annealed

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 5070 Steel Bars and Forgings, 0.18 - 0.23C (SAE 1022)

AMS 5640 Steel Bars, Wire, and Forgings, Corrosion Resistant, 18Cr - 9.0Ni, (SAE 30303, 30303Se, 30303 Mod) Free Machining

AMS 6370 Steel Bars, Forgings, and Rings, 0.95Cr - 0.20Mo - (0.28 - 0.33C) (SAE 4130)

2.2 ASTM Publications:

Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

ASTM D 471 Rubber Property - Effect of Liquids

2.3 U.S. Government Publications:

Available from Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

TT-S-735 Standard Test Fluids, Hydrocarbon

MIL-S-7105 Pipe Threads, Taper, Aeronautical National Form, General Specification for

2.3 U.S. Government Publications (Continued):

MIL-C-7742	Screw Threads, Standard, Optimum Selected Series, General Specification for
MIL-C-27725	Coating, Corrosion Preventive, for Aircraft Integral Fuel Tanks
MIL-P-38714	Packaging and Packing of Two Component Materials in Semkits
MIL-C-38736	Compound, Solvent; for Use in Integral Fuel Tanks
MIL-STD-2073-1	DOD Materiel, Procedures for Development and Application of Packaging Requirements
AN 3	Bolt and Machine, Aircraft

3. TECHNICAL REQUIREMENTS:

3.1 Material:

(R) Sealing compound shall be a permanently deformable, non-curing fluorosilicone product which does not contain solvents.

3.1.1 Appearance: Sealing compound shall exhibit no separation of components. Occluded gases shall not be permitted.

3.1.2 Storage Life: The sealing compound shall meet the requirements of 3.2 (R) after storage at $90^{\circ}\text{F} +10 - 0$ ($32^{\circ}\text{C} +6 - 0$) for 18 months from date of manufacture (date of last acceptance tests conducted by manufacturer).

3.1.2.1 Storage Life Updating: At the expiration of the storage life time. (R) sealing compound meeting the requirements of 3.2.1, 3.2.2, 3.2.4, and 3.2.5 may have its storage life extended 9 months. Up to four extensions will be allowed.

3.2 Properties:

Sealing compound shall conform to the requirements shown in Table 1, determined in accordance with specified test methods.

TABLE 1 - Properties

Paragraph	Property	Requirements	Test Method
3.2.1	Nonvolatile Content, minimum	98%	4.5.2
3.2.2	Extrusion		4.5.3
(R)	Class 1	200 - 275 pounds force (890 - 1223 N)	
	Class 2	100 - 200 pounds force (445 - 890 N)	
	Class 3	250 - 350 pounds force (1112 - 1557 N)	
3.2.3	Corrosion Resistance	The surface of the panel which was in contact with sealing compound shall have no more corrosion or severe discoloration than the uncoated panel.	4.5.4
3.2.4	Pressure Rupture, minimum	10 inches (254 mm) Hg	4.5.5
3.2.5	Fuel Resistance		4.5.6
3.2.5.1	Volume Change		
3.2.5.1.1	Jet Reference Fluid (AMS 2629)	+5 to +35%	
3.2.5.1.2	TT-S-735, Type 1, Fluid	+1 to +15%	
3.2.5.2	Weight Loss, maximum	6%	
3.2.6	Sealability	No leaks	4.5.7
3.2.7	Reinjection Time, maximum	20 seconds	4.5.7

3.3 Quality:

The compound, as received by purchaser, shall be uniform in quality and consistency and free from foreign materials and from imperfections detrimental to usage of the compound.

4. QUALITY ASSURANCE PROVISIONS:

4.1 Responsibility for Inspection:

- (R) The vendor of sealing compound shall supply all samples for vendor's tests 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 compound conforms to the requirements of this specification.

4.2 Classification of Tests:

4.2.1 Acceptance Tests: Tests for nonvolatile content (3.2.1), extrusion (3.2.2), pressure rupture (3.2.4), and fuel resistance (3.2.5) are acceptance tests and shall be performed on each lot.

4.2.2 Preproduction Tests: Tests for all technical requirements are preproduction tests and shall be performed prior to or on the initial shipment of 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.

4.2.2.1 For direct U.S. Military procurement, substantiating test data and, when requested, preproduction test material shall be submitted to the cognizant agency as directed by the procuring activity, contracting officer, or request for procurement.

4.3 Sampling and Testing:

- (R) Shall be as follows:

4.3.1 For Acceptance Tests: Sufficient compound shall be taken at random from each lot to perform all required tests. The number of determinations for each requirement shall be as specified in the applicable test procedure or, if not specified therein, not less than three.

4.3.1.1 A batch shall be all compound run through a mixer at one time.

4.3.1.2 An inspection lot shall be not more than 200 gallons (757 L) of compound from one batch.

4.3.1.3 When a statistical sampling plan has been agreed upon by purchaser and vendor, sampling shall be in accordance with such plan in lieu of sampling as in 4.3 and the report of 4.6 shall state that such plan was used.

4.3.2 For Preproduction Tests: As agreed upon by purchaser and vendor.

4.4 Approval:

4.4.1 Preproduction sample compound shall be approved by purchaser before compound for production use is supplied, unless such approval be waived by purchaser. Results of tests on production compound shall be essentially equivalent to those on the approved sample compound.

4.4.2 Vendor shall use ingredients, manufacturing procedures, processes, and methods of inspection on production compound 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, vendor shall submit for reapproval a statement of the proposed changes in ingredients and/or processing and, when requested, ^{sample} compound. Production compound made by the revised procedure shall not be shipped prior to receipt of reapproval.

4.5 Test Methods:

4.5.1 Standard Conditions:

4.5.1.1 Laboratory Test Conditions: Standard laboratory test conditions shall be $77^{\circ}\text{F} \pm 2$ ($25^{\circ}\text{C} \pm 1$) and $50\% \pm 5$ relative humidity. Except as otherwise specified herein, all test specimens shall be prepared and tested under these conditions.

4.5.1.2 Standard Tolerances: Unless otherwise specified herein, standard (R) tolerances shall be as shown in Table 2.

TABLE 2 - Standard Tolerances

Condition	Value
Temperature	$\pm 2^{\circ}\text{F}$ (1°C)
Hours	± 2 hours
Minutes	± 5 minutes
Seconds	± 1
Pressure	± 1 psi (7 kPa)
Inches (mm)	± 0.01 inch (0.25 mm)

4.5.1.3 Standard Cleaning: Unless otherwise specified herein, all test panels (R) and jigs shall be cleaned using MIL-C-38736 solvent and AMS 3819, Grade A, cleaning cloths.

4.5.2 Nonvolatile Content: Five to ten grams of sealing compound shall be transferred to a tared covered cup approximately 3 inches (76 mm) in diameter and 0.75 inch (19 mm) in depth. The specimen shall be weighed to the nearest milligram and the weight of the sealing compound calculated. The cover shall be removed and the sealing compound heated for 168 hours at 160°F (71°C). Compound shall be cooled in a desiccator at standard conditions, the cover replaced, and the specimen reweighed. The test shall be run in duplicate and the average of the results reported. The total nonvolatile content percentage shall be calculated as shown in Equation 1.

$$\text{Percent Nonvolatile Content} = \frac{\text{Final Weight}}{\text{Initial Weight}} \times 100 \quad (\text{Eq. 1})$$

- 4.5.3 Extrusion: The extrusion plastometer shown in Figures 1 and 2 shall be packed with a hand rolled, cylindrically shaped mass of sealing compound about 0.75 inch (19 mm) in diameter and 2.25 to 2.50 inch (57.2 to 63.5 mm) long. Special precaution should be taken to avoid forming air pockets in the slug of sealing compound. Sufficient fingertip pressure shall be used to force the sealing compound into intimate contact with the cylinder walls. The packed apparatus shall be stabilized for 24 hours at standard conditions. At the end of the stabilization period, insert the plastometer piston, center the assembly on the fixed base of a tensile machine, and load in compression at the constant rate of 0.100 inch $\pm$ 0.002 (2.54 mm $\pm$ 0.05) per minute. When the top of the piston is approximately 1.25 inches (31.8 mm) from the top of the plastometer cylinder, the maximum scale load which occurs during the ensuing 0.25 inch (6.4 mm) of piston travel shall be recorded. Clean the plastometer completely after each trial. Make a blank determination on the empty plastometer and subtract the scale load obtained from the maximum scale loads obtained when the sealant was tested. The test shall be run in duplicate and the average of the results reported. Individual test results shall not deviate by more than 10% of the average value.
- 4.5.4 Corrosion Resistance: Two AMS 4045 panels approximately 0.040 x 2.75 x 6 inches (1.02 x 69.8 x 152 mm) in size shall be cleaned. Two parallel fillets of sealing compound 0.06 inch (1.5 mm) thick by 0.75 inch (19 mm) wide by 5 inches (127 mm) long shall be applied to one of the panels. That panel shall be set aside under standard conditions, lying horizontally with the sealing compound face up, for at least 24 hours. Both panels shall be immersed vertically for 20 days in a covered glass vessel containing a 2-layer liquid consisting of a 3% aqueous sodium chloride solution and AMS 2629, Type I, jet reference fluid, so that 1.6 inches (41 mm) of the panels are exposed to the salt water, 1.6 inches (41 mm) exposed to jet reference fluid, and the remainder exposed to air-vapor mixture. The temperature during the exposure shall be maintained at 140 °F (60 °C). Immediately upon removal from the liquid, the sealant shall be removed using a plastic scraper and the panels examined for evidence of corrosion.
- 4.5.5 Pressure Rupture: Specimens constructed in accordance with Figure 3 and finished as listed in Table 3 shall be used. Pack the sealing compound into the specimens, taking care to eliminate air bubbles, and stabilize the specimens at standard conditions for not less than 24 hours. The specimens shall be cooled to below -20 °F (-29 °C) and the excess material trimmed from the surfaces with a razor blade. One of the specimens shall be mounted in the pressure rupture jig (Figure 3). One air hose bib of the apparatus shall be connected to a manometer, the other to a variable pressure source. The assembly shall be immersed in a water bath at 77 °F (25 °C) and stabilized for five minutes. Starting at atmospheric pressure, the pressure on the apparatus shall be uniformly increased at the rate of 1 inch (25 mm) of mercury per 15 seconds until failure occurs. A continuous stream of air bubbles observed to come from the specimen shall constitute a failure. The pressure applied at the time of failure shall be recorded. Test the other two specimens in the same manner. The average failure pressure of the three specimens shall be reported to the nearest 0.5 inch (13 mm) of mercury (Hg).

TABLE 3 - Pressure Rupture Specimens (3 each required)

1. Anodized in accordance with AMS 2471.
2. Sulfuric acid anodized in accordance with AMS 2471 and coated with MIL-C-27725 corrosion preventive coating. Application, coating thickness, and curing shall be in accordance with manufacturer's recommendations. Care shall be taken to ensure a thin, even coat in the slot.

4.5.6 Fuel Resistance: Six AMS 4045 aluminum panels, approximately 0.040 x 1 x 2.50 inches (1.02 x 25 x 63.5 mm), shall be weighed accurately to the nearest milligram in air (W_1), and in water (W_2). A pad of sealing compound 0.06 x 1 x 2 inches (1.5 x 25 x 51 mm) shall be applied to each panel. One-half inch (12.7 mm) at one end of each panel shall not be coated for handling purposes. The sealant coated panels shall then be weighed in air (W_3) and in water (W_4). The panels shall be conditioned at standard conditions for 24 hours. The panel shall then be exposed for 14 days at 160 °F (71°C) with three of the panels immersed in AMS 2629, Type I, fluid and the other three in TT-S-735, Type I, fluid. The panels shall be weighed immediately upon removal from the fluid in air (W_5) and in water (W_6). The procedures in accordance with ASTM D 471 shall be used. The percent change in volume shall be determined by the formula, Equation 2. The reported value shall be determined by averaging the three values obtained for each exposure. The average value shall be determined to the nearest 0.1%.

$$\text{Percent Volume Change} = \frac{(W_5 - W_6) - (W_3 - W_4)}{(W_3 - W_4) - (W_1 - W_2)} \times 100 \quad (\text{Eq. 2})$$

4.5.6.1 Each specimen shall then be placed in an oven at 200 °F (93 °C) for 24 hours, cooled to standard conditions for at least 2 hours, and weighed in air (W_7). The percentage weight loss shall be determined by the formula, Equation 3:

$$\text{Percentage Weight Loss} = \frac{W_3 - W_7}{W_3 - W_1} \times 100 \quad (\text{Eq. 3})$$

4.5.6.1.1 The average of the three values obtained for each exposure shall be determined to the nearest 0.1%.

4.5.7 Sealability and Reinjection:
(R)

4.5.7.1 Jig Assembly: Washer and shim thicknesses required for jig assembly are shown in Table 4.

TABLE 4 - Jig Assembly

Sealant Class	Washer and Shim Thickness Inch	Washer and Shim Thickness Millimeter
Class 1	0.005 inch $\pm$ 0.0002	0.13 mm $\pm$ 0.005
Class 2	0.005 inch $\pm$ 0.0002	0.13 mm $\pm$ 0.005
Class 3	0.015 inch $\pm$ 0.0002	0.38 mm $\pm$ 0.005

4.5.7.1.1 A groove injection pressure test jig conforming to Figure 5 shall be cleaned. Install washers 0.26 inch (6.6 mm) ID by 0.50 inch (12.7 mm) OD by appropriate thickness specified in Table 4 on every other of the outer circle bolts between the two plates. Install four shims 1.00 inch by 0.25 inch (25.4 mm by 6.4 mm) by appropriate thickness specified in Table 4 in the faying surface between the fuel cavity and the groove so that the shims do not protrude into the groove but may protrude into the fuel cavity. The bolts shall be torqued to 60 inch/pounds $\pm$ 2 (6.8 N.m $\pm$ 0.2).

4.5.7.2 Sealant Injection: A suitable sealing compound injection gun with a 70 to 1 injection pressure to air line pressure ratio shall be used for sealant injection. The line air pressure shall be maintained so that the maximum pressure developed at the injection tip (See Figure 4) is 2800 psi $\pm$ 70 (19.3 MPa $\pm$ 0.5). The sealing compound shall be injected into the jig through the four injection ports calling the first port injected A and going clockwise calling the other ports B, C, and D as follows:

4.5.7.2.1 With all injection ports unplugged, inject into A until not less than 1 inch (25 mm) sealing compound emerges from ports B and D (i.e. the two ports adjacent to the port being injected).

4.5.7.2.2 Insert a plug screw into port A and inject B until not less than 1 inch (25 mm) of sealing compound emerges from C.

4.5.7.2.3 Insert a plug screw into B and inject into C until not less than 1 inch (25 mm) of sealing compound emerges from D.

4.5.7.2.4 Insert a plug screw into C and remove the plug screw from A. Inject into D until not less than 1 inch (25 mm) of sealing compound emerges from A.

4.5.7.2.5 Insert a plug screw into A and D.

4.5.7.3 Pressure Test: To ensure that the jig is initially sealed, the following shall be done:

4.5.7.3.1 Pressurize the jig to 5 psi (34.5 kPa).

4.5.7.3.2 Close the needle valve.

- 4.5.7.3.3 Watch for a pressure drop for 60 seconds. Pressurized system shall be leak-free from the needle valve through the pressure gauge to the test jig.
- 4.5.7.3.4 If a pressure drop occurs, immerse the pressurized jig in water to determine the location of the leak. Reinject the proper portion of compound into the groove to stop the leak and pressure test again in water.
- 4.5.7.4 Exposure: The conditioning shall be as follows:
- 4.5.7.4.1 44 hours $\pm$ 2 at 160 °F (71 °C) filled with AMS 2629, Type I, jet reference fluid (JRF) at 0 psi (0 kPa) plus 4 hours at -64 °F (-53 °C) in JRF at 5 psi (34.5 kPa).
- 4.5.7.4.2 Continue conditioning for 16 hours at 160 °F (71 °C) filled with JRF at 5 psi (34.5 kPa) plus 4 hours at 260 °F (127 °C) in JRF vapors (5 mL of (182 °C) in JRF vapors at 5 psi (34.5 kPa) plus 30 minutes at 360 °F (182 °C) in JRF vapors at 5 psi (34.5 kPa) plus 60 minutes at room temperature with JRF vapors at 0 psi (0 kPa) plus 150 minutes at room temperature filled with JRF at 0 psi (0 kPa).
- 4.5.7.4.3 Repeat 4.5.7.4.2 five times for a total of six cycles. 4.5.7.4.1 is not repeated.
- 4.5.7.4.4 During any extended time between cycles, such as a weekend, the jig shall remain filled with JRF and conditioned at room temperature.
- 4.5.7.5 Reinjection: After completing the exposure in 4.5.7.4, the jig shall be reinjected as follows:
- 4.5.7.5.1 The calculated tip pressure of the gun shall be 2800 psi $\pm$ 70 (19.3 MPa $\pm$ 0.5).
- 4.5.7.5.2 The injection shall be performed as in 4.5.7.2 except that only two adjacent injection ports will be unplugged at one time, the plug being injected and the next plug clockwise.
- 4.5.7.5.3 Each of the four injections shall be timed to the nearest second from when the trigger is depressed until the piston reaches the end of its travel and the arithmetic average reported.
- 4.6 Reports:
- (R) The vendor of sealing compound shall furnish with each shipment a report showing the results of tests to determine conformance to the acceptance test requirements and stating that the compound conforms to the other technical requirements. This report shall include the purchase order number, lot number, AMS 3376A, class number, vendor's compound number, and quantity.

- 4.6.1 (R) A material safety data sheet conforming to AMS 2825, or equivalent, shall be supplied to each purchaser prior to or concurrent with, the report of preproduction test results or, if preproduction testing be waived by purchaser, concurrent with the first shipment of the product for production use. Each request for modification of product formulation shall be accompanied by a revised data sheet for the proposed formulation.

4.7 Resampling and Retesting:

(R)

If any specimen used in the above tests fails to meet the specified requirements, disposition of the sealing compound may be based on the results of testing three additional specimens for each original nonconforming specimen. Failure of any retest specimen to meet the specified requirements shall be cause for rejection of the compound represented. Results of all tests shall be reported.

5. PREPARATION FOR DELIVERY:

5.1 Packaging:

- 5.1.1 The sealing compound shall be furnished in 6 fluid ounce (177 mL) sectional type cartridges, conforming to MIL-P-38714; each cartridge containing 5 fluid ounces $\pm$ 0.3 (148 mL $\pm$ 9) of sealing compound. The cartridges shall be packaged in sectionalized cardboard boxes containing 12 cartridges per box.

- 5.1.2 (R) Boxes of cartridges filled with sealing compound shall be prepared for shipment in accordance with commercial practice and in compliance with applicable rules and regulations pertaining to the handling, packaging, and transportation of the product to ensure carrier acceptance and safe delivery.

- 5.1.3 (R) For direct U.S. Military procurement, packaging shall be in accordance with MIL-STD-2073-1, Commercial Level, unless Level A is specified in the request for procurement.

5.2 Identification:

- 5.2.1 (R) Each cartridge and each box shall be permanently and legibly marked with not less than the following information:

SEALING COMPOUND, NON-CURING, GROOVE INJECTION, TEMPERATURE AND FUEL
RESISTANT

AMS 3376A, CLASS _____

MANUFACTURER'S IDENTIFICATION _____

QUANTITY _____

LOT NUMBER _____

DATE OF MANUFACTURE _____

Store below 90 °F (32 °C)

NOTE: DATE OF MANUFACTURE SHALL BE THE DATE AT WHICH THE LAST
ACCEPTANCE TEST WAS COMPLETED BY THE MANUFACTURER.

5.2.2 Each exterior shipping container shall be legibly marked with not less than the following information:

SEALING COMPOUND, NON-CURING, GROOVE INJECTION, TEMPERATURE AND FUEL RESISTANT

AMS 3376A, CLASS _____

MANUFACTURER'S IDENTIFICATION _____

PURCHASE ORDER NUMBER _____

Store below 90 °F (32 °C)

6. ACKNOWLEDGMENT:

A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

7. REJECTIONS:

Sealing compound not conforming to this specification, or to modifications authorized by purchaser, will be subject to rejection.

8. NOTES:

8.1 Marginal Indicia:

The (R) symbol is used to indicate technical changes from the previous issue of this specification.

8.2 Dimensions and properties in inch/pound units and the Fahrenheit temperatures are primary; dimensions and properties in SI units and the Celsius temperatures are shown as the approximate equivalents of the primary units and are presented only for information.

8.3 For direct U.S. Military procurement, purchase documents should specify not less than the following:

Title, number, and date of this specification

Class of compound desired

Quantity of cartridges desired

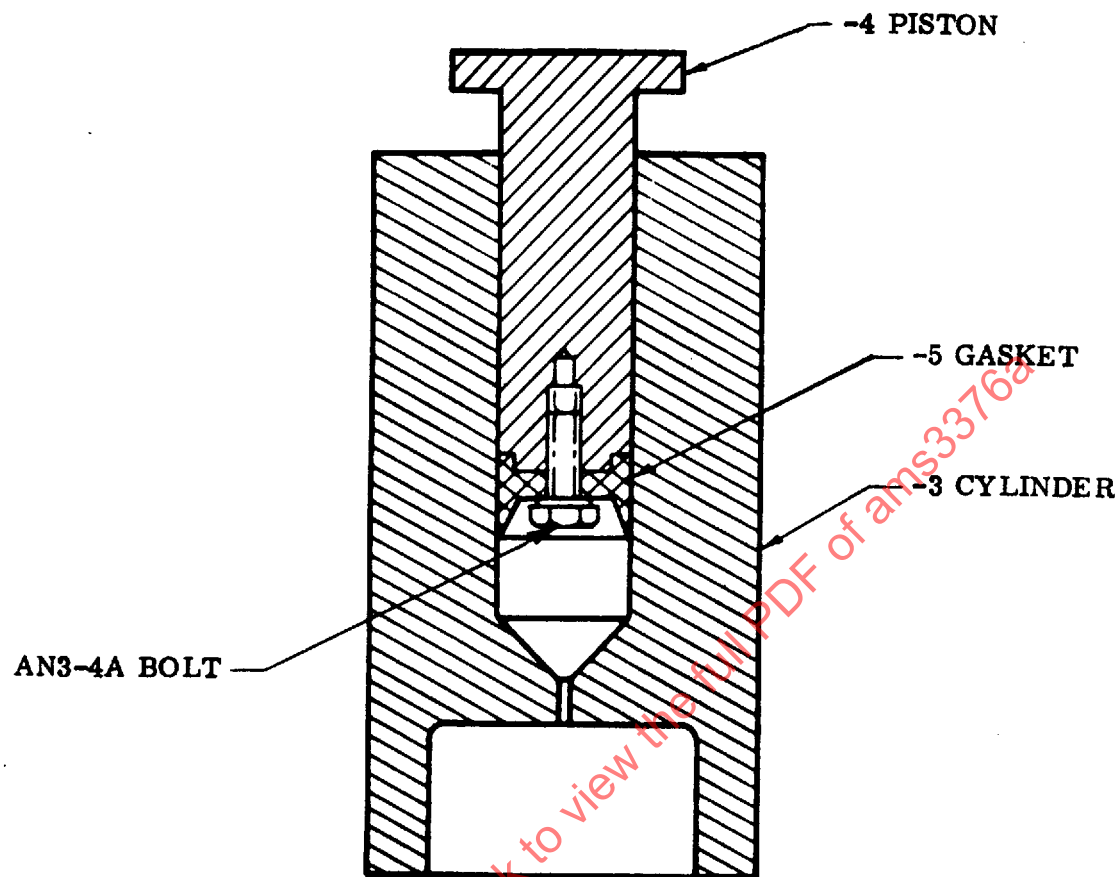
Level A packaging, if required (See 5.1.3).

8.4 Sealing compound meeting the requirements of this specification has been classified under Federal Supply Classification (FSC) 8030.

8.5 Keywords:

Sealing compound, fluorosilicone, sealant, fuel resistant sealant

PREPARED UNDER THE JURISDICTION OF AMS COMMITTEE "G-9".

**NOTES:**

1. Material of -3 Cylinder; AMS 6370 Steel Bar, Heat Treat 180 to 200 ksi (1241 to 1379 MPa)
2. Material of -4 Piston; AMS 5070 Steel Bar,
Case Harden 0.032 inch (0.81 mm) Deep
Case 55 HRA, minimum
Core Strength 55.0 ksi (379 MPa), minimum
3. Material of -5 Gasket; AMS 3660 Plastic Rod
4. Machine finish all surfaces 250 microinches (6.35 mm except as noted
5. Tolerances to be ± 0.005 inch (± 0.13 mm), except as noted.

FIGURE 1 - EXTRUSION PLASTOMETER

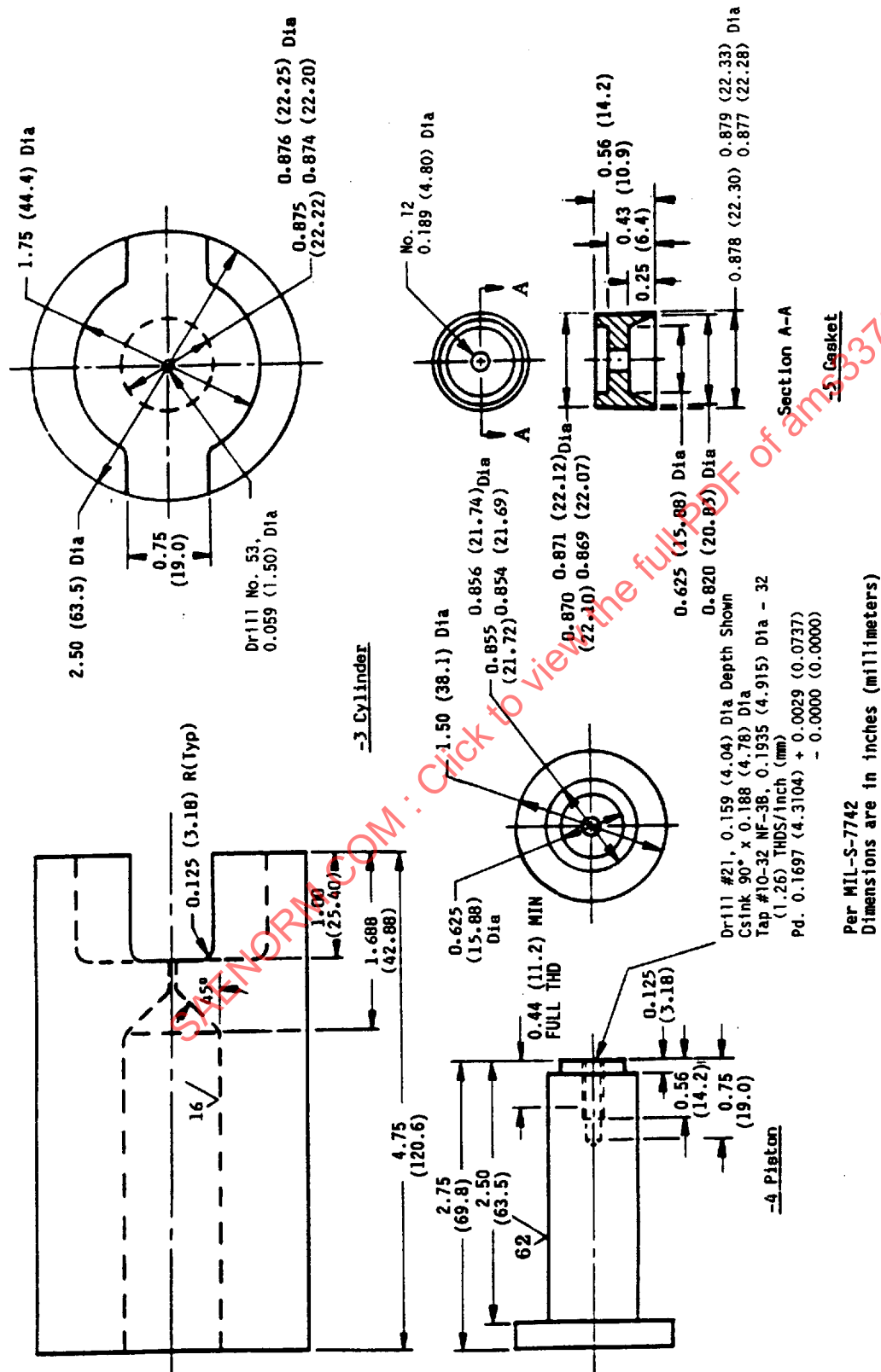


FIGURE 2 - EXTRUSION PLASTOMETER

NOTES TO FIGURE 2

1. The plastometer shall be maintained at standard conditions during testing.
2. The rate of plastometer piston travel is very critical. The rate of head travel of the tensile machine should be checked with a dial micrometer while testing.
3. The plastic gasket should be frequently checked for wear and replaced if undersize or irregular.
4. The plastometer piston shall be removed immediately following a test to avoid permanent compression of the plastic gasket.
5. If the plastometer is not to be used for five days or longer, the inside surface shall be thoroughly covered with a protective oil.
6. The plastometer shall be cleaned in accordance with 4.5.1.3 before use.

SAENORM.COM : Click to view the full PDF of AMS 3376A