

MIL-S-85312(AS)
2 March 1979

MILITARY SPECIFICATION

SEALING COMPOUND, NONCURING, POLYSULFIDE, GROOVE INJECTION, FOR INTEGRAL FUEL TANKS

This specification is approved for use by the Naval Air Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification establishes requirements for inert, permanently mastic polysulfide sealing compound for sealing or resealing integral fuel tanks on Military aircraft.

1.2 Classification. The polysulfide sealing compound shall be of the following classes (see 6.2):

Class 1 - Regular viscosity
Class 2 - High viscosity

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

QQ-A-250/4	-Aluminum Alloy 2024, Plate and Sheet
QQ-A-250/12	-Aluminum Alloy 7075, Plate and Sheet
TT-E-751	-Ethyl Acetate, Technical

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Engineering Specifications and Standards Department (Code 93), Naval Air Engineering Center, Lakehurst, NJ 08733, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document, or by letter.

FSC 8030

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TT-I-735	-Isopropyl Alcohol
TT-M-261	-Methyl Ethyl Ketone, Technical
TT-N-97	-Naphtha, Aromatic
TT-S-735	-Standard Test Fluids, Hydrocarbon
PPP-B-566	-Box, Folding, Paperboard
PPP-B-636	-Box, Shipping, Fiberboard
PPP-C-96	-Cans, Metal, 28 Gauge and Lighter

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MIL-C-5541	-Chemical Conversion Coatings on Aluminum and Aluminum Alloys
MIL-T-5624	-Turbine Fuel, Aviation, Grades JP-4 and JP-5
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-81706	-Chemical Conversion Materials for Coating Aluminum and Aluminum Alloys

STANDARDS

MILITARY

MIL-STD-105	-Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	-Marking for Shipment and Storage

(Copies of specifications, standards, drawings, and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

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2.2 Other publications. The following documents from a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D217- -Cone Penetration of Lubricating Grease

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

CONSOLIDATED CLASSIFICATION COMMITTEE

Uniform Freight Classification Rules

(Application for copies should be addressed to the Consolidated Classification Committee, 202 Chicago Union Station, Chicago, Illinois 60606.)

(Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

3. REQUIREMENTS

3.1 Classification of requirements. The requirements for the sealing compound are classified herein as follows:

<u>Requirement</u>	<u>Paragraph</u>
Material	3.2
Appearance	3.3
Physical properties	3.4
Mechanical properties	3.5
Storage	3.6
Toxicity	3.7
Workmanship	3.8

3.2 Material. The sealing compound furnished under this specification shall be a one part permanently pliable mastic polysulfide type material. The sealing compound shall be homogeneous, stable and non-corrosive.

3.3 Appearance. The polysulfide sealing compound shall be supplied in the as manufactured color. There shall be no lumps or other agglomerate masses present.

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3.4 Physical properties. The sealing compound shall meet the physical property requirements of table I.

TABLE I. Physical properties

PROPERTY	REQUIREMENT ^{1/}	TEST PARA
Specific gravity, max	1.75	4.5.1.1
Nonvolatile content, %, min	98	4.5.1.2
Corrosion	No corrosion under compound no powdering, leaching, or cracking	4.5.1.3
Weight loss, %, max	5 - No cracking, hardening, softening, blistering, or adhesion loss	4.5.1.4
Hardness, mm penetration	<u>Class 1</u> <u>Class 2</u>	4.5.1.5
As received	4.0 1.5 to 4.0	
After 93° (200°F)	2.5	

^{1/} Unless otherwise specified, the requirement is applicable to both classes.

3.5 Mechanical properties.

3.5.1 Injection and reinjection properties. When tested as specified in 4.5.2.1, original injection properties for class 1 shall be 5 to 9 grams extruded per 5 minute period; for class 2, 1 to 4 grams extruded per 5 minute period. Reinjection properties shall be in accordance with table II and shall be determined on class 1 compounds only. The requirement shall be grams obtained per 5 minutes extrusion.

3.5.1.1 Adhesion. All specimens tested for reinjection properties shall be disassembled and adhesion noted. Separation shall be a minimum 80% cohesive failure. Examination shall be conducted as specified in 4.5.2.2.

3.5.2 Low temperature flexibility. The sealant shall not crack, chip or lose adhesion when tested in 4.5.2.3.

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TABLE II. Reinjection properties, Class 1

CONDITIONS	EXTRUSION RATE, MIN. - GRAMS/5 MINUTES	
	FUEL SOAKED	DRY
24 hrs. @ 93°C (200°F)	1.2	1.2
168 hrs. @ 93°C (200°F)	0.1	0.5
24 hrs. @ 121°C (250°F)	1.2	1.2
168 hrs. @ 121°C (250°F)	0.1	0.5

3.5.3 Pressure rupture. The sealing compound, when tested as specified in 4.5.2.4 shall meet the following minimum blowout pressure requirements:

<u>Conditions</u>	<u>Requirement</u>
Control	5.9 psi equivalent to 12 inches of mercury
Fuel exposed	1.7 psi equivalent to 3.5 inches of mercury
121°C (250°F) exposure	1.7 psi equivalent to 3.5 inches of mercury

3.6 Storage. The manufacturer shall certify that the sealant, after storage for one year at temperatures not exceeding 40°C (100°F) shall be capable of meeting all the requirements of this specification.

3.7 Toxicity. The polysulfide shall be non-toxic and have no adverse effect on the health of personnel when used for its intended purpose. Questions pertinent to this effect shall be directed to the appropriate departmental medical service which will act as advisor to the procuring activity.

3.8 Workmanship. The sealing compound furnished under the specification shall be formulated from the highest quality components described herein to meet all the requirements of this specification.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the perform-

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ance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The examination and testing of the sealing compound shall be classified as quality conformance inspection (see 4.3).

4.3 Quality conformance.

4.3.1 Lot formation. Unless otherwise specified a lot shall consist of all the sealing compound, formulated from the same components under essentially the same conditions and submitted for inspection at one time.

4.3.2 Sampling and inspection procedures.

4.3.2.1 Physical and mechanical properties. Physical and mechanical property samples shall be randomly selected from each lot of sealing compound offered for inspection. Sufficient material shall be selected to complete the testing specified in table III. Failure of the sealing compound to pass any requirement of table III shall be cause to reject the lot represented by the material.

4.3.2.2 Packaging. A quantity of shipping containers prepared for delivery just prior to closure shall be selected in accordance with Inspection Level I of MIL-STD-105. The lot size for purposes of this inspection shall be the number of shipping containers. Each selected sample shall be examined as specified in 4.5.3 and to Section 5 of this specification. The AQL for this inspection shall be 4.0. In addition, shipping containers fully prepared for delivery shall be examined for closure defects.

4.4 Test conditions.

4.4.1 Standard conditions. Standard conditions shall be $25^{\circ}\pm 1^{\circ}\text{C}$ ($77^{\circ}\pm 2^{\circ}\text{F}$) and a relative humidity of 50 ± 5 percent. Unless otherwise specified, all tests shall be conducted at standard conditions.

4.4.2 Preparation of test panels and fixtures.

4.4.2.1 Surface treatment of test panels. Unless otherwise specified, all test panel areas shall have a chemical film conforming to MIL-C-5541 (The film produced from materials in accordance with MIL-C-81706). Where referenced in the test method, a 0.8 to 1.2 mil thickness

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of coating conforming to MIL-C-27725 shall be applied and cured for 24 hours at standard conditions of 4.4.1 plus 24 hours at $49^{\circ}\pm 1^{\circ}\text{C}$ ($120^{\circ}\pm 2^{\circ}\text{F}$) at a minimum relative humidity of 25 percent.

TABLE III. Inspection procedures

PROPERTY	RQMT. PARA.	TEST PARA.	NUMBER OF TEST SPECIMENS 1/
Appearance	3.3	<u>2/</u>	-
Specific gravity	Table I	4.5.1.1	3
Nonvolatile content	Table I	4.5.1.2	3
Corrosion	Table I	4.5.1.3	3
Weight loss	Table I	4.5.1.4	6
Hardness	Table I	4.5.1.5	2
Injection/reinjection	3.5.1	4.5.2.1	4 <u>4/</u>
Adhesion	3.5.1.1	4.5.2.2	4
Low temperature flex	3.5.2	4.5.2.3	2
Pressure rupture	3.5.3	4.5.2.4	9 <u>5/</u>
Storage	3.6	<u>3/</u>	-

1/ All results shall be reported. Specimens pass or fail.

Failure of any specimen to pass a single requirement shall be cause to reject the lot represented by the sample.

2/ All samples shall be visually examined for conformance to 3.3 and 3.8.

3/ Manufacturer shall certify to the requirement of 3.6.

4/ Four specimens required; two as dry controls.

5/ Nine specimens; three for each test condition.

4.4.2.2 Preliminary cleaning. Gross soil, marking ink, or grease pencil, if present, shall be removed by scrubbing with cheesecloth wet with methyl-ethyl-ketone conforming to TT-M-261. (The cheesecloth shall be freshly laundered, dry, lint and starch free and shall contain no dye, rust, oil, or other foreign material.)

4.4.2.3 Cleaning. All surfaces to which the sealing compound will be applied shall be cleaned by scrubbing and rinsing in solvent formulated in accordance with table IV. After rinsing and while still wet, the test surface shall be wiped dry with clean cheesecloth (see 4.4.2.2).

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TABLE IV. Cleaning solvent formulations

INGREDIENT	SPECIFICATION	PERCENT BY VOLUME
Aromatic petroleum naphtha	TT-N-97, Type I, Grade B	50
Ethyl Acetate	TT-E-751	20
Methyl-ethyl-ketone	TT-M-261	20
Isopropyl Alcohol	TT-I-735	10

4.5 Test methods.4.5.1 Physical properties.

4.5.1.1 Specific gravity. Each of three aluminum panels, 0.032 by 1 by 2.25 inches, conforming to QQ-A-250/4, treated as specified in 4.4.2.1 shall be weighed to the nearest milligram in air (W₁) and in water (W₂). A mass of sealing compound approximately 0.06 by 1 by 2 inches shall be applied to each panel. The coated panels shall be reweighed in air (W₃) and in water (W₄). Specific gravity shall be determined as follows:

$$\text{Specific Gravity} = \frac{W_3 - W_1}{(W_1 + W_4) - (W_2 + W_3)}$$

Where: W₁ = Weight of panel in air

W₂ = Weight of panel in water

W₃ = Weight of panel and sealing compound in air

W₄ = Weight of panel and sealing compound in water

4.5.1.2 Nonvolatile content. Five to ten grams of sealing compound shall be transferred to a tared covered cup approximately three inches in diameter and 3/4 inch in depth. The specimen shall be weighed to the nearest milligram and the weight of the sealing compound calculated. The cover shall then be removed and the sealing compound heated in an air circulating oven for 24 hours at 93°±1°C (200°±2°F). It shall then be cooled in a desiccator at standard conditions (4.4.1), the cover replaced, and the specimen reweighed. The test shall be run in triplicate and the average of the results reported. The percentage of the total nonvolatile content shall be calculated as follows:

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$$\text{Percent nonvolatile content} = \frac{\text{Final weight}}{\text{Initial weight}} \times 100$$

4.5.1.3 Corrosion. One panel measuring 0.040 by 2.87 by 6 inches of bare aluminum conforming to QQ-A-250/4, 2024T-3 shall be used. Two parallel fillets of sealant, approximately 0.063 by 0.75 by 5 inches shall be applied approximately 0.5 inch apart to one side of the panel. The panel shall be immersed vertically in a covered glass vessel containing a two phase liquid system consisting of 3 percent aqueous sodium chloride solution and test fluid conforming to TT-S-735, Type III. The volumes of the fluids shall be such that approximately one-third of the panel shall be in the salt solution, one-third in the test fluid, and the remainder exposed to the air-vapor mixture above the fluid. The specimen shall be maintained at $60^{\circ}\pm 1^{\circ}\text{C}$ ($140^{\circ}\pm 2^{\circ}\text{F}$) for seven days. Immediately upon removal from the liquid, the sealant shall be removed by scribing one end and peeling back from the panel. The panel shall then be examined for evidence of corrosion under the area where the sealant has been applied.

4.5.1.4 Weight loss

4.5.1.4.1 Specimen preparation. Ten test panels, 1 by 1 by 0.012 inch conforming to QQ-A-250/4 shall be individually weighed to the nearest milligram (W_1). The corners of the panels may be turned up to facilitate handling. A mass of sealing compound approximately 0.625 by 0.625 by 0.012 inch shall be placed on each panel. Sufficient pressure shall be used to ensure adhesion to the panel. Each specimen (sealing compound and panel) shall be weighed to the nearest milligram (W_2).

4.5.1.4.2 Procedure. One specimen shall be placed in each of ten 300 ml erlenmyer flasks: 3 containing 100 mls each of test fluid conforming to TT-S-735, Type III - 3 containing 100 mls each of JP-4 fuel conforming to MIL-T-5624, - 3 containing 100 mls each of JP-5 fuel conforming to MIL-T-5624, - and 1 to serve as the dry control. The flasks shall be equipped with a reflex condensor and placed in a water bath at $60^{\circ}\pm 1^{\circ}\text{C}$ ($140^{\circ}\pm 2^{\circ}\text{F}$) for 72 ± 1 hours. The specimen shall be removed from the flask and dried in an oven at $71^{\circ}\pm 1^{\circ}\text{C}$ ($160^{\circ}\pm 2^{\circ}\text{F}$) for 24 hours. The dried specimen shall be reweighed (W_3) and examined for any evidence of cracking, softening, blistering, hardening, or loss of adhesion. Percent weight loss shall be determined as follows:

$$100 = \frac{W_3 - W_1}{W_2 - W_1} \times 100 = \% \text{ of weight loss}$$

W_1 = weight of panel

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W_2 = weight of panel + compound before exposure

W_3 = weight of panel + compound after exposure

4.5.1.5 Penetrometer hardness. Two test fixtures as shown in figure 1 shall be filled with sealing compound. One fixture shall be covered, the top securely fastened, and exposed in an oven at $93^{\circ}\pm 1^{\circ}\text{C}$ ($200^{\circ}\pm 2^{\circ}\text{F}$) for 24 hours, cooled to standard conditions (4.4.1). Both fixtures shall undergo penetration testing in accordance with ASTM D217 and the following:

1. Take 3 to 5 second readings 120° from each other at two points midway between the center and edge of the fixture.
2. The top load and large cone shall be removed from the penetrometer.

4.5.2 Mechanical properties.

4.5.2.1 Injection and reinjection properties. The injection equipment used in this test shall be the Grover Model 223, or equal, sealant gun equipped with an orifice of 0.040 inch. Air pressure to the gun shall be maintained at 90 ± 5 psi. Record the air pressure reading. The same pressure shall be used for all initial injections and reinjections after conditioning tests. Four test fixtures shall be assembled as shown in figure 2. The injection test system shall be stabilized at least four hours. The sealant shall be injected into the fixture from port 1 to 2. Seal port 1 with tap screw to prevent sealant backup. Follow the same procedure for ports 2 thru 4. After this, permit the sealant gun to recover (rest) a minimum of 2 hours at 90 ± 5 psi.

4.5.2.1.1 Extrusion rate. After sealant gun recovery, the tap screws shall be removed from ports 3 and 4. The tip shall be inserted into port 3. The gun shall be triggered and a timer capable of measuring 0.1 second to 5 minutes in tenths of seconds shall be actuated at precisely the same time. The sealant shall be injected for 5 minutes or until the gun piston completes 1 full stroke, whichever occurs first. The gun and timer shall be stopped at the same time. Weigh the extruded sealant and calculate the value to be grams extruded per 5 minute period (initial injection value).

4.5.2.1.2 Fuel exposure. All ports on each fixture shall be sealed. Two fixtures shall be immersed in fluid conforming to TT-S-735, Type III and exposed for 168 hours at $60^{\circ}\pm 1^{\circ}\text{C}$ ($140^{\circ}\pm 2^{\circ}\text{F}$). The two remaining fixtures shall be control fixtures. After exposure, 1 fluid fixture and 1 control fixture shall be placed in an oven at $93^{\circ}\pm 1^{\circ}\text{C}$ ($200^{\circ}\pm 2^{\circ}\text{C}$). The remaining fixtures shall be placed in a $121^{\circ}\pm 1^{\circ}\text{C}$ ($250^{\circ}\pm 2^{\circ}\text{F}$) oven. All fixtures shall be exposed 24 hours, removed from the ovens, cooled to standard conditions and reinjected as described in 4.5.2.1.1, except

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that injection shall be from port 2 to 1. All fixtures shall be resealed and once again placed in the respective ovens at the above temperatures for a period of 168 hours. The fixtures shall be cooled to standard conditions and reinjected as described in 4.5.2.1.1.

4.5.2.2 Adhesion. The panels from 4.5.2.1.2 shall be disassembled and the adhesion of the sealant to the facing aluminum plates determined by visual examination. The results shall be reported as adhesive or cohesive failures.

4.5.2.3 Low temperature flexibility. Two nonclad aluminum panels, 6 by 1.75 by 0.063 inch, conforming to QQ-A-250/12 shall be coated with a 0.032 inch layer of sealant, allowing 0.5 inch at each lengthwise end to remain uncoated. The panels shall be inserted in the low temperature flexibility fixture (figures 3 and 4) so that the uncoated side will contact the contour block and the weight will contact only the uncoated end of the panel. The temperature of the fixture and panels shall be reduced to $-54^{\circ}\pm 1^{\circ}\text{C}$ ($-65^{\circ}\pm 2^{\circ}\text{F}$). After two hours at the reduced temperature, the specimens shall be bent around the curved portion of the fixture by releasing the fastening hook. Conformance to 3.5.2 shall be noted.

4.5.2.4 Pressure rupture. The sealing compound shall be packed into nine blowout fixtures (see figure 5), taking care to eliminate air bubbles. Stabilize the specimens at $25^{\circ}\pm 1^{\circ}\text{C}$ ($77^{\circ}\pm 2^{\circ}\text{F}$) for a minimum period of 24 hours. The specimens shall be cooled to below $-28.8^{\circ}\pm 1^{\circ}\text{C}$ ($-20^{\circ}\pm 2^{\circ}\text{F}$) and the excess material trimmed from the surfaces with a razor blade. The specimens shall then be tested as described below.

4.5.2.4.1 Initial. One of the specimens shall be mounted in the pressure rupture fixture (figure 5). 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 $25^{\circ}\pm 1^{\circ}\text{C}$ ($77^{\circ}\pm 2^{\circ}\text{F}$) and stabilized for five minutes. Starting at atmospheric pressure, the pressure on the apparatus shall be uniformly increased at the rate of one inch 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 two additional specimens in the same manner. The average failure pressure of the three specimens shall be reported to the nearest 0.5 inch of mercury.

4.5.2.4.2 Fluid immersion. Three specimens shall be immersed in fluid conforming to TT-S-735, Type III and exposed at $60^{\circ}\pm 1^{\circ}\text{C}$ ($140^{\circ}\pm 2^{\circ}\text{F}$) for 168 hours. The specimens shall be tested as specified in 4.5.2.4.1. Each specimen shall remain in the fluid until just before testing.

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4.5.2.4.3 Elevated temperature. Three specimens shall be tested as described in 4.5.2.4.1 except as follows: The test fixture shall be placed in an oven at $121^{\circ}\pm 2^{\circ}\text{C}$ ($250^{\circ}\pm 4^{\circ}\text{F}$) allowed to come to equilibrium, followed by 15 minutes at that temperature. Failure shall be indicated by rapid pressure drop.

4.5.3 Packaging examination. The samples selected in accordance with 4.3.2.2 shall be visually examined to the requirements in Table V and to all applicable requirements to determine conformance to Section 5 of this specification. In addition, shipping containers fully prepared and sealed for delivery shall be examined for closure defects.

TABLE V. Packaging examination

EXAMINATION	DEFECT
Fill	Not volume or weight specified in contract (Individual containers may be replaced by properly filled containers.)
Packaging	Wrong size cans or kits Material or construction not as specified Components damaged, missing, or contents leaking Unit package closure incomplete or damaged Not level required by contract or purchase order Base compound and accelerator not properly separated
Packing	Not level required by contract or purchase order Any nonconforming component, incomplete closures Bulged or damaged shipping containers
Count	Less than specified or indicated quantity per shipping containers
Markings	Unit package and packing - Omitted, illegible, incorrect, incomplete, or not in accordance with contract requirements

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5. PACKAGING

5.1 Packaging. Packaging shall be Level A or Commercial Packaging as specified (See 6.2).

5.1.1 Level A.

5.1.1.1 Unit Package.

5.1.1.1.1 Cartridge. The sealing compound shall be packaged in cartridges conforming to MIL-P-38714, Size A. The plunger arrangement shall be such that the compound will be expelled from the large diameter orifice.

5.1.1.1.2 Metal containers. The compound shall be furnished in containers conforming to PPP-C-96, Type V, Class 1. The contained volume of sealing compound shall fill the container to approximately 75 percent of its capacity.

5.1.1.2 Intermediate package. Cartridges shall be packed in snug fitting boxes conforming to PPP-B-636, PPP-B-566 or equal. An alternate method is heat sealable polyethylene bags.

5.1.2 Commercial packaging. The sealing compound shall be packaged in standard commercial containers of the size and kind commonly used, which will afford the degree of protection required for shipment to the first receiving activity and immediate use.

5.2 Packing. Packing shall be Level A or Commercial packing as specified (see 6.2).

5.2.1 Level A.

5.2.1.1 Cartridges. Each cartridge package shall be packed into an individual cell formed by slotted fiberboard or polystyrene partitions. The container shall conform to PPP-B-636, class weather-resistant. The box shall be closed and strapped in accordance with the appendix to the box specification. The gross weight of the box shall not exceed the weight limitations of the box specification.

5.2.1.2 Metal containers. The compound shall be packed in accordance with the appendix to PPP-C-96 as specified for overseas shipment.

5.2.2 Commercial packing. The compound packaged in accordance with 5.1 shall be packed to afford protection against damage during direct shipment from the source of supply to the first receiving activity for immediate use. Containers shall comply to the Uniform Freight Classification Rules or other regulations applicable to the mode of transportation.

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5.3 Marking. In addition to markings required by the contract or order, the interior packages and shipping containers shall be marked in accordance with MIL-STD-129 and shall include the following information:

Sealing Compound, Non-Curing, Polysulfide, Groove
Injection for Integral Fuel Tanks
Specification number
Class
Manufacturer's name and address
Manufacturer's batch identification
Quantity contained
Contract number
Date of manufacture

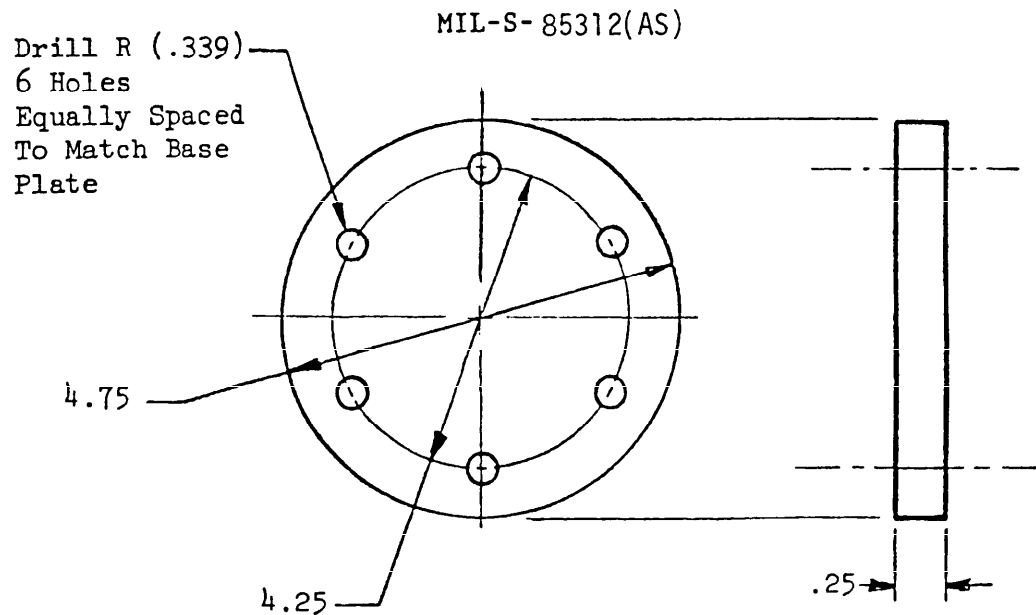
6. NOTES

6.1 Intended use. The noncuring sealing compound covered by this specification is intended for sealing or resealing integral fuel tanks designed for groove-injection type sealing specifying a polysulfide polymer that may be subjected to a service temperature range of -60°F to ±250°F.

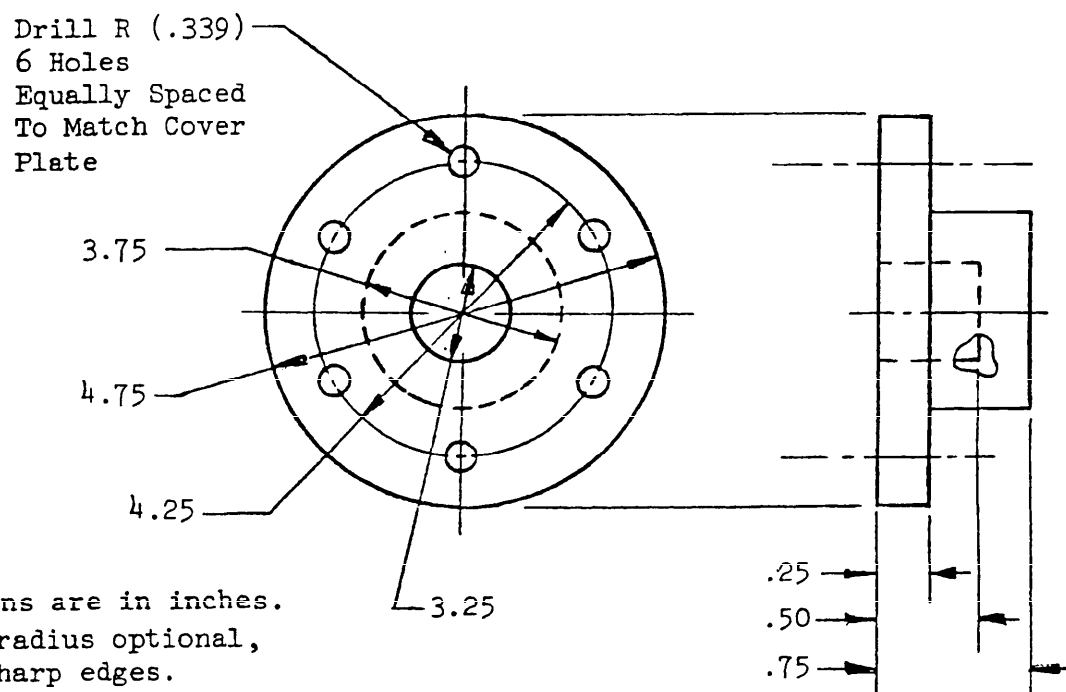
6.2 Ordering data. Procurement documents shall specify the following:

- a. Title, number, and date of this specification
- b. Class required (see 3.3)
- c. Quantity desired in pounds or ounces
- d. Size and type of container required (see 5.1.1.1 and 5.1.1.2)
- e. Packaging, packing, and marking data (see 5.3)
- f. Any special marking

Preparing Activity
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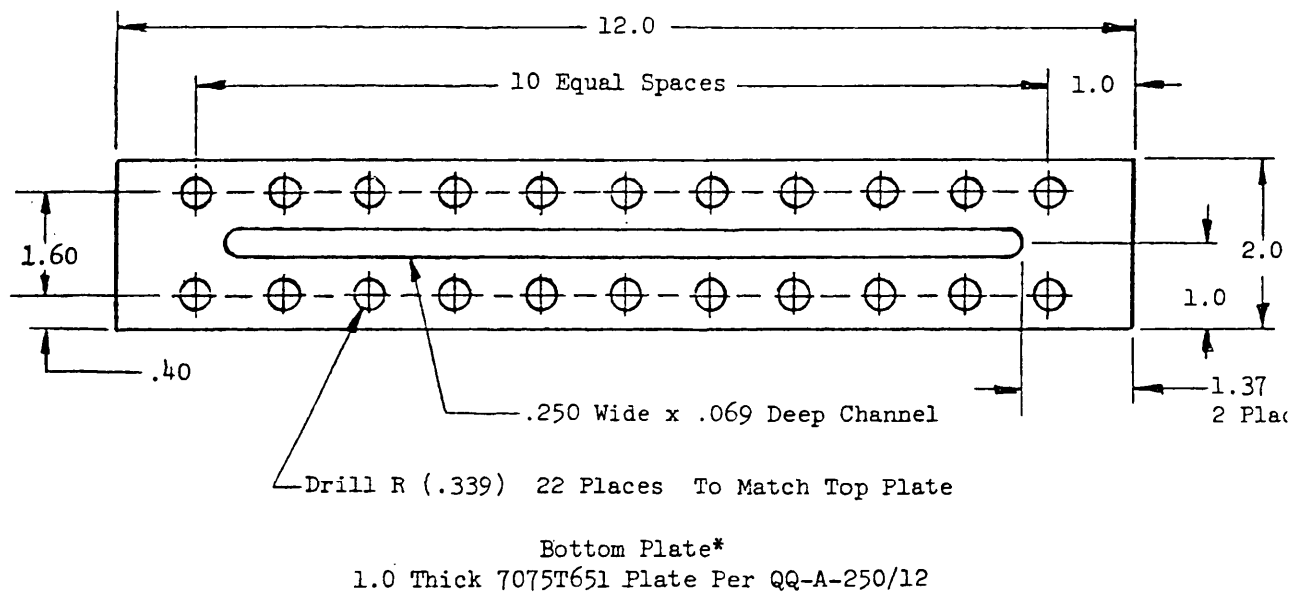
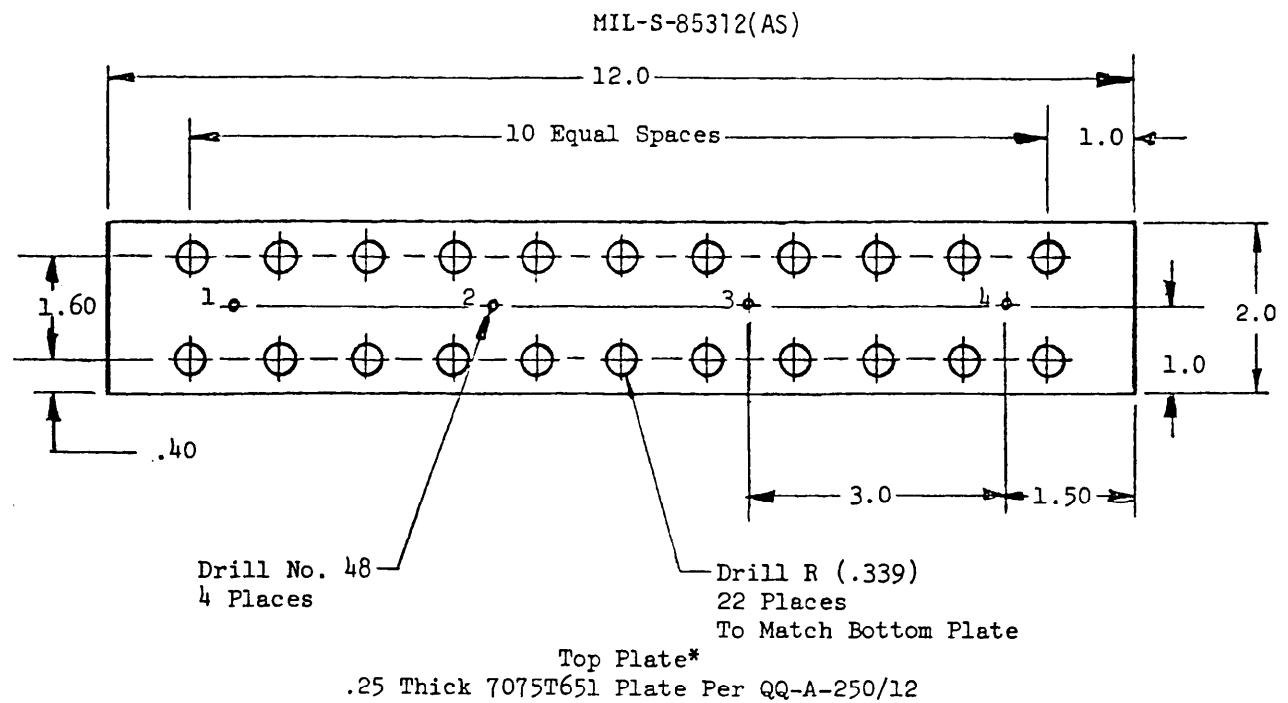
Cover Plate*
.25 Thick 7075T651 Plate Per QQ-A-250/12



Dimensions are in inches.
*Fillet radius optional,
break sharp edges.
Tolerances $\pm .03$ unless
otherwise specified.

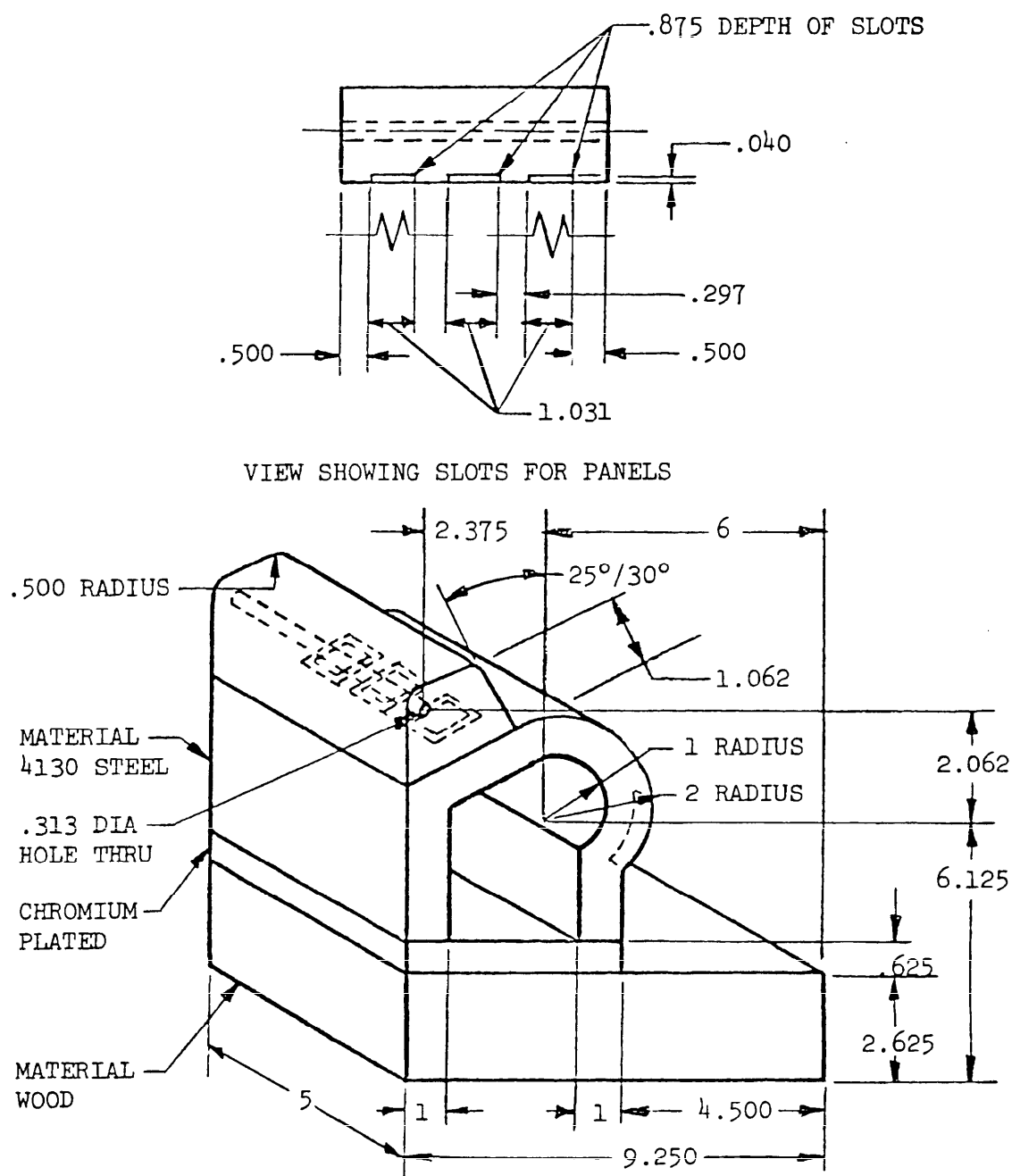
Base Plate*
.75 Thick 7075T651 Plate Per QQ-A-250/12

Figure 1. Penetrometer Fixture



*Channel radius optional, break sharp edges. Tolerances $\pm .03$ unless otherwise specified.
Dimensions are in inches. Figure 2. Injection Fixture

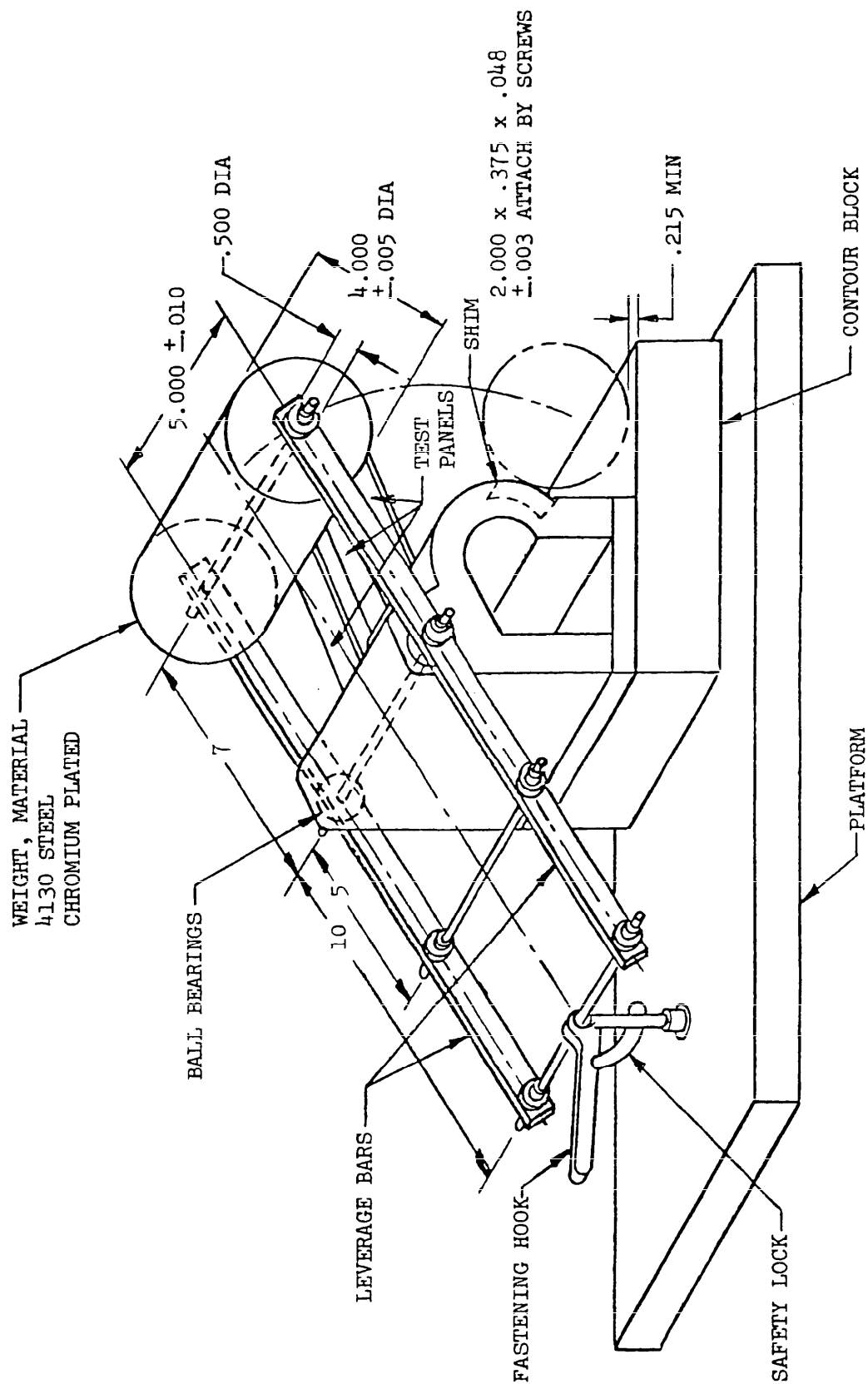
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Dimensions are in inches.

Figure 3. Contour Block

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Dimensions are in inches.

FIGURE 4 Low Temperature Test Fixture

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS: This form is provided to solicit beneficial comments which may improve this document and enhance its use. DoD contractors, government activities, manufacturers, vendors, or other prospective users of the document are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity. A response will be provided to the submitter, when name and address is provided, within 30 days indicating that the 1426 was received and when any appropriate action on it will be completed.

NOTE: This form shall not be used to submit requests for waivers, deviations or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

DOCUMENT IDENTIFIER (Number) AND TITLE MIL-S-85312(AS) SEALING COMPOUND, NONCURING,
POLYSULFIDE, GROOVE INJECTION, FOR INTEGRAL FUEL TANKS.
NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER

☐ VENDOR ☐ USER ☐ MANUFACTURER

☐ HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT
USE? ☐ IS ANY PART OF IT TOO RIGID, RESTRICTIVE, LOOSE OR AMBIGUOUS? PLEASE EXPLAIN BELOW.

A. GIVE PARAGRAPH NUMBER AND WORDING

B. RECOMMENDED WORDING CHANGE

C. REASON FOR RECOMMENDED CHANGE(S)

REMARKS

SUBMITTED BY (Printed or typed name and address — Optional)

TELEPHONE NO.

DATE

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Engineering Specifications and
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