

MIL-R-7362D  
2 May 1967

SUPERSEDING  
MIL-R-7362C  
12 June 1964

## MILITARY SPECIFICATION

### RUBBER, SYNTHETIC, SOLID, SHEET, STRIP AND FABRICATED PARTS, SYNTHETIC OIL RESISTANT

This specification is mandatory for use by all Departments and Agencies of the Department of Defense.

#### 1. SCOPE

1.1 This specification covers two types of synthetic rubber for use where resistance to diester synthetic oils is required.

1.2 Classification. Synthetic rubber shall be of the following types, as specified (see 6.2):

Type I - O-rings

Type II - Molded parts (other than O-rings), sheets, strips, and extruded shapes

#### 2. APPLICABLE DOCUMENTS

2.1 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

NN-P-515	Plywood, Container Grade
UU-P-268	Paper, Kraft, Untreated, Wrapping
UU-T-111	Tape; Paper, Gummed (Sealing and Securing)
PPP-B-601	Boxes, Wood, Cleated-Plywood
PPP-B-621	Boxes, Wood, Nailed and Lock-Corner
PPP-B-636	Box, Fiberboard

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MIL-P-4861	Packing, Preformed, Rubber, Packing and Packaging of
MIL-P-25732	Packing, Preformed, Petroleum, Hydraulic Fluid Resistant, 275°F
MIL-R-25897	Rubber, High-Temperature, Fluid-Resistant

**STANDARDS****Military**

MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	Marking for Shipment and Storage
MIL-STD-289	Visual Inspection Guide for Rubber Sheet Material
MIL-STD-298	Visual Inspection Guide for Rubber Extruded Goods
MIL-STD-407	Visual Inspection Guide for Rubber Molded Items
MIL-STD-413	Visual Inspection Guide for Rubber O-Rings
MS29561	Packing, Preformed, O-Ring, Synthetic Lubricant Resistant

**PUBLICATIONS****Air Force-Navy Aeronautical Bulletin**

No. 438	Age Controls of Age-Sensitive Elastomeric Items
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(Copies of specifications, standards, drawings, and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

**2.2 Other publications.** The following documents form 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:

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American Society for Testing and Materials Publications

D297	Chemical Analysis of Rubber Products (Tentative)
D395	Compression Set of Vulcanized Rubber
D412	Tension Testing of Vulcanized Rubber (Tentative)
D471	Change in Properties of Elastomeric Vulcanizates Resulting from Immersion in Liquids (Tentative)
D573	Accelerated Aging of Vulcanized Rubber by the Oven Method
D676	Indentation of Rubber by Means of a Durometer (Tentative)
D1329	Evaluating Low-Temperature Characteristics of Rubber and Rubber-Like Materials by a Temperature-Retracton Procedure (IR Test)
D1414	Tension Testing of Rubber O-Rings (Tentative)

(Copies of ASTM publications may be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.)

Uniform Classification Committee

## Uniform Freight Classification Rules

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

**3. REQUIREMENTS**

**3.1 Preproduction.** The synthetic rubber furnished under this specification shall be a product which has met the preproduction tests specified herein (see 4.3).

**3.2 Materials.** The synthetic rubber shall be manufactured from compounds which are compatible with diester synthetic oils.

**3.2.1 Corrosion and adhesion.** The materials shall not cause any corrosion nor shall it adhere to aluminum alloy, brass, or phosphor bronze, when tested as specified in 4.6.1. It shall not adhere to or cause more than slight corrosion of steel. Discoloration will not be cause for rejection.

**3.3 Dimensions**

**3.3.1 Type I (O-rings).** Dimensions and tolerances of type I (O-rings) shall be as specified on MS29561 or in the contract (see 6.2).

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**3.3.2 Type II**

**3.3.2.1 Sheet and strip.** Unless otherwise specified, the width of the sheet material shall be  $36 \pm 1$  inch and the tolerances on thickness shown in table I shall apply. The width of strip material or shapes cut from sheet shall be as specified with tolerances of  $\pm 5$  percent. The thickness of strip material, other than shapes cut from sheet, shall be as specified with tolerances of  $\pm 5$  percent. The length shall be as specified with a tolerance of  $\pm 1$  percent.

Table I. Thickness tolerances for sheet

Nominal thickness (inch)	Tolerances (inch)
0.06 and less	$\pm 0.010$
Over 0.06 to 0.12, inclusive	$\pm 0.016$
Over 0.12 to 0.50, inclusive	$\pm 0.031$
Over 0.50 to 1.00, inclusive	$\pm 0.047$
Over 1.00	$\pm 0.063$

**3.3.2.2 Molded parts and extruded shapes.** Dimensions and tolerances shall be as specified on the drawing or in the contract (see 6.2).

**3.4 Physical properties.** Physical properties of the synthetic rubber shall conform to table II.

**3.4.1** The permissible variations in physical properties during actual production from those values established in the preproduction tests shall be:

Tensile strength, percent	$\pm 15$
Elongation, percent	$\pm 20$
Hardness, points	$\pm 3$
Specific gravity	$\pm 0.02$
Compression set	$\pm 5$ Units of percent
Volume change	$\pm 2.5$ Units of percent

Also, the original property values for tensile strength, elongation, and hardness shall meet the requirements listed in table II.

**3.5 Age.** Unless otherwise specified, the age limitations for the finished product shall conform to ANA Bulletin No. 438.

Table II. Physical properties

Property	Type I	Type II
<b>Original:</b>		
Tensile strength, psi, minimum	1,200	1,500
Ultimate elongation, percent minimum	250	250
Hardness, Shore "A", points	70 $\pm$ 5	70 $\pm$ 5
Temperature retraction 10% (TR-10), °F, maximum	-40	-40
Specific gravity	As determined	As determined
<b>Air aged - 70 hours at 257° <math>\pm</math>2°F</b>		
Tensile strength decrease, percent, maximum	20	20
Ultimate elongation decrease, percent, maximum	60	60
Hardness change, Shore "A", points	-0, +20	-0, +20
<b>Oil aged - 70 hours at 257° <math>\pm</math>2°F</b>		
Tensile strength decrease, percent, maximum	50	50
Ultimate elongation decrease, percent, maximum	60	60
Hardness change, Shore "A", points	$\pm$ 10	$\pm$ 10
Volume change, percent	2 to 15	2 to 15
Cracking, diameter, inches, minimum (type I)	1.75	---
180° Flat bend (cracking)(type II)	---	Shall not crack
Temperature retraction 10% (TR-10), °F, maximum	-30	-30
Compression set, percent maximum	50	60

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### 3.6 Identification of product

3.6.1 Type I (O-rings). Temporary marking of O-rings for the manufacturer's identification shall be permitted at the time of manufacture. The temporary marking shall not, in any way, affect the properties or function of the O-ring.

#### 3.6.2 Type II

3.6.2.1 Sheet and strip. Unless otherwise specified in the contract or order, sheet material shall be marked to show the specification number, date of cure (by quarters, e.g., 2Q65), and the manufacturer's identification or compound number. The identification shall appear in rows of constantly recurring symbols from one end of the sheet to the other spaced approximately 5 inches apart. The manufacturer's identification or compound number shall appear immediately below the specification number. The symbol shall be clearly legible and not less than 3/8 inch high, and shall be applied by suitable means, using marking fluid that is not deleterious to the rubber. The marking shall not be obliterated by normal handling nor by the action of lubricating oil, aromatic fuel, or aliphatic fuel. Strip material shall also be marked in this manner providing the width of the material permits this. When the width does not permit this, the identification shall be marked on the containers in accordance with Paragraph 5.

3.6.2.2 Molded parts and extruded shapes. Where the size of the product permits, the identifying symbol shall be marked as indicated in 3.6.2.1. When the size does not permit marking the identification shall be marked on the containers in accordance with Paragraph 5.

3.7 Workmanship. The rubber sheet strip and fabricated rubber parts shall be manufactured and processed in accordance with the requirements of this specification. They shall be free from blisters, wrinkles, holes, dents, scratches or other defects which will affect serviceability or appearance.

## 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsible for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to 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.

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**4.2 Classification of tests.** The inspection and testing of the synthetic rubber shall be classified as:

- a. Preproduction inspection (4.3)
- b. Quality conformance inspection (4.4)

**4.3 Preproduction inspection**

**4.3.1 Samples.** Samples for type I material shall be O-rings of  $0.984 \pm 0.006$  inch inside diameter with  $0.139 \pm 0.004$  inch cross-sectional diameter. Hardness shall be determined on specimens of sufficient dimensions to comply with ASTM D676. Samples for type II material shall be obtained from 6 inches by 6 inches by 0.075 inch platen sheets.

**4.3.2 Tests.** Preproduction tests shall consist of all the tests specified in 4.6. (see 6.3)

**4.4 Quality conformance inspection.** Sampling for inspection shall be in accordance with MIL-STD-105, except where otherwise indicated. Quality conformance tests are required for all production batches of material (see 4.4.6).

**4.4.1 Sampling for inspection**

**4.4.1.1 Batch.** A batch shall be the quantity of material run through a mill or mixer at one time.

**4.4.2 Samples for quality conformance tests.** When possible, the end item, or specimens cut from the end item, shall be used as the sample. If the items are unsuitable for use as test samples, tests shall be performed on samples of identical composition and state of cure as the end item.

**4.4.3 Inspection of materials and components.** In accordance with 4.1, the supplier is responsible for insuring that materials and components used were manufactured, tested, and inspected in accordance with referenced subsidiary specifications and standards to the extent specified, or if none, in accordance with this specification. In the event of conflict, this specification shall govern.

**4.4.4 Inspection of the end item**

**4.4.4.1 Examination of the end item.** Examination of the end item shall be made in accordance with the classification of defects, inspection levels, and acceptable quality levels (AQL's) set forth herein. The batch size, for purpose of determining the sample size in accordance with MIL-STD-105, shall be expressed in units

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of O-rings, molded parts, or yards of sheets, strips or extruded shapes, as applicable, for examination in 4.4.4.1.1, 4.4.4.1.2, and 4.4.5. If the end item is less than 1 yard, the sample unit shall be the end item.

**4.4.4.1.1 Examination for defects in appearance and workmanship**

**4.4.4.1.1.1 Molded parts including O-rings.** The sample unit shall be one molded part and the examination shall be in accordance with MIL-STD-413 for O-rings and MIL-STD-407 for other molded products. The sample size shall be in accordance with inspection level II of MIL-STD-105 and the acceptable quality levels (AQL) shall be 0.65 major and 1.5 total.

**4.4.4.1.1.2 Sheets, strips, and extruded shapes.** The sample unit shall be 1 yard, except if the end item is less than 1 yard, the sample unit shall be the end item. The examination shall be in accordance with MIL-STD-289 and MIL-STD-298, as applicable. Defects in marking such as "incomplete, not legibly identified", or as specified in 3.6.2.1 shall be considered minor. The sample size shall be in accordance with inspection level II of MIL-STD-105 and the acceptable quality levels (AQL) shall be 1.0 major and 2.5 total.

**4.4.4.1.2 Examination for dimensional defects**

**4.4.4.1.2.1 Molded parts including O-rings.** The sample unit shall be one molded part. The dimensions for O-rings shall be within the tolerances in MS29561 unless otherwise specified. The following tolerances shall apply for other molded parts unless otherwise specified:

<u>Range (inches)</u>	<u>Tolerances (inches)</u>
0.125 or less	±0.016
Over 0.125 to 0.250	±0.024
Over 0.250 to 0.50	±0.032
Over 0.50 to 1.00	+0.046
Over 1.00	±4 percent

The sample size shall be in accordance with inspection level S-3 of MIL-STD-105 and the acceptable quality level (AQL) shall be 0.65.

**4.4.4.1.2.2 Sheets, strips and extruded shapes.** The sample unit shall be 1 yard except if the end item is less than 1 yard, the sample unit shall be the end item. The dimensions shall be within the tolerances in 3.3.2.1. Dimensions for extruded shapes shall be as specified on the drawing or in the contract. If these

dimensions are not specified, they shall be in accordance with those given for molded parts in 4.4.4.1.2.1. The sample size shall be in accordance with inspection level II of MIL-STD-105 and the acceptable quality level (AQL) shall be 1.5.

4.4.5 Examination for defects in preparation for delivery. An examination shall be made to determine that the packaging, packing, and markings comply with section 5. The sample unit for this examination shall be one shipping container fully packed, selected just prior to the closing operation. Shipping containers fully prepared for delivery shall be examined for closure defects.

<u>Examine</u>	<u>Defect</u>
Packaging (O-rings, molded parts, and extruded shapes)	Not the level specified. Not packaged as specified or required. Packaging material, closures not as specified. Unit items not individually wrapped when specified.
(Sheets)	Not interleaved; separator sheets do not fully cover the full area of contact between the sheets.
(Strips)	Stacked over 10 inches high. Not in rolls; not wound on suitable cores. Rolls not wrapped or sealed as specified. Total length per roll varies by more than the indicated tolerances (5.1.1.2.2).
Packing	Not level specified; not in accordance with contract requirements. Container not as specified, closures not accomplished by specified or required methods or materials. Any nonconforming component, component missing, damaged or otherwise defective, affecting serviceability. Inadequate application of components, such as incomplete closure of case liners, containing flaps loose or inadequate strapping, bulged or distorted containers.
Count	Less than specified or indicated quantity, linear footage, or units, as applicable.
Weight	Gross weight exceeds specified requirements.

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## Markings

Interior or exterior markings, as applicable, omitted, illegible, incorrect, incomplete, or not in accordance with contract requirements (5.3).  
Date of cure, storage instructions missing (see 5.3.1).

The sample size shall be in accordance with inspection level II of MIL-STD-105 and the acceptable quality level (AQL) shall be 2.5.

**4.4.6 Quality conformance tests.** Each batch of material shall be tested for hardness and specific gravity. Each 200 pounds of material based on the total weight of raw materials or each 5 batches of material if the total weight of the 5 batches is less than 200 pounds shall be evenly sampled after curing and the tests listed below performed.

## Examples:

1. Each batch of 200 pounds or more shall be tested.
2. If the batch size is 80 pounds, quality conformance tests shall be conducted on every 3 batches or 240 pounds.
3. If the batch size is 30 pounds, quality conformance tests shall be conducted on every 5 batches or 150 pounds.

Original

Tensile Strength  
Elongation  
Hardness

Oil aged

Tensile Strength  
Elongation  
Hardness  
Compression Set  
Volume Change

If the items are unsuitable for use as test samples, tests shall be performed on samples of identical composition and state of cure as the end item.

**4.4.6.1 Rejection criteria.** Failure of any sample to meet the test requirements herein shall reject the batch.

**4.5 Test conditions**

**4.5.1 Control fluid.** The oil aging in this specification shall be conducted using Stauffer Blend 7700 as a control Fluid. It consists of a standard production base fluid plus 0.5 percent phenothiazine. New fluid shall be used for each aging test (see 6.4).

**4.5.2 Atmospheric conditions.** All fluid cooling, conditioning, and physical property determinations of rubber shall be conducted in an atmosphere of  $50 \pm 15$  percent relative humidity and at a temperature of  $75^{\circ} \pm 5^{\circ}\text{F}$ .

#### 4.6 Test methods

**4.6.1 Corrosion and adhesion.** The corrosion and adhesion test shall be conducted in accordance with the corrosion and adhesion test of MIL-P-25732, except that eight O-rings shall be required for each type of metal used in conducting the test. The length of the test shall be 14 days, minimum.

**4.6.2 Physical properties.** Unless otherwise specified, the following physical properties shall be determined in accordance with the ASTM test methods for rubber products:

<u>Property</u>	<u>ASTM method</u>
Hardness	D676
Tensile strength and elongation	
Type I	D1414
Type II	<u>1/</u> D412
Volume change	D471
Specific gravity	D297, Hydrostatic method

1/ Die "C" shall be used for type II materials.

**4.6.2.1 Temperature retraction (TR-10).** The temperature retraction test shall be conducted in accordance with ASTM D1329. Three O-ring specimens as specified in 4.3.1 shall be used for type I and shall be elongated 50 percent in accordance with the rod markings. The temperature retraction test type II shall be conducted on three 2-inch specimens.

**4.6.3 Air aging.** Air aging shall be conducted in accordance with ASTM D573, except that the aging time and temperature shall be in accordance with table II.

**4.6.4 Oil aging.** Oil aging of specimens shall be conducted in clean 39 millimeters (mm) OD by 300 mm pyrex glass test tubes fitted with 2-hole cork stoppers. Each stopper shall be fitted with 2 lengths of 8 mm pyrex glass tubing (chimneys), one 3 inches in length, the other 5 inches in length. The 3-inch chimney shall extend through and 1/2 inch above the top of the stopper. The 5-inch chimney shall extend through and 3-1/2 inches above the top of the stopper. An aluminum block heater shall be used for aging the specimens. Use of an oil bath is permissible but is not desired. For each test, 140 milliliters (ml) of oil shall be used. The test

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tubes shall be inserted into the aluminum block or oil bath in such manner that the fluid level in the test tubes shall be approximately 1-5/8 inches above the heating unit of the aluminum block or surface of the oil bath. This distance shall not be measured from the top of the aluminum block or covering of the oil bath. The specimens shall be suspended in the oil by soft iron or nichrome wire hangers as follows:

- a. Type I: Three specimens shall be suspended horizontally in the fluid, one each at depths of 1-1/2 inches, 3-1/2 inches, and 5-1/2 inches below the surface of the fluid. Hardness specimens shall be placed in a separate chimney stoppered tube keeping approximately the same rubber to oil ratio.
- b. Type II: Four dumbbells cut with a die "C", conforming to ASTM D412, shall be tested. There shall be only two specimens aged in a single test tube. The specimens shall be suspended vertically in the fluid, one each at depths of 1 inch and 2 inches below the surface of the fluid. The measurement of specimen depth in the fluid shall be made between the top edge of the specimen and the fluid level. Care shall be taken to prevent contact of specimens with each other or the wall of the test tube.

4.6.4.1 The oil-aging time and temperature shall be 70 hours at  $257^{\circ} \pm 2^{\circ}\text{F}$ . After aging and prior to the physical property determinations, the specimens shall be removed from the hot fluid and cooled 30 minutes in fresh fluid. Tensile strength, elongation, hardness, volume change, and temperature retraction (TR-10) shall then be determined as specified in 4.6.2 and 4.6.2.1.

4.6.4.2 Cracking test. For type I material, three oil-aged O-rings shall be rolled onto a smooth surface cone. The base of the cone shall be 2-1/2 inches in diameter. The height of the cone shall be 10 inches. The diameter at which cracking first appears shall be measured and recorded. For type II material, three aged dumbbells or strips 1/4 inch wide shall be cut from sheet stock and used for this test. Each specimen of type II material shall be bent back 180 degrees upon itself.

4.6.4.3 Compression set. Except where otherwise specified, compression set shall be determined in accordance with ASTM D395 Method B. Specimens for type I material shall be two O-rings. Type II material shall use two circular specimens of plied-up sheets with dimensions of  $1.129 \pm 0.001$  diameter and approximately 0.5 inch thickness. The compression set plates for the O-rings shall be approximately 0.375 inch by 2 inches by 4 inches. There

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shall be six 1/4-inch bolt holes; one on each corner and one located in the middle of each 4-inch edge and on the center line of the corner holes. There shall also be 1/4-inch holes through the middle of each half of the plates to allow fluid to be in contact with the inside diameter of the O-rings. The compression set plates for type II material shall be in accordance with ASTM D395. The original thickness of the specimens shall be measured and the test fixtures shall be assembled using two test specimens. The specimens shall be compressed 25 percent. The test fixture shall be placed in a 1-liter stainless steel beaker and 800 milliliters of Stauffer Blend 7700 shall be added to the beaker. The beaker shall be fitted with a suitable vented stainless steel cap. The cap shall be sealed with an O-ring conforming to MIL-R-25897, class 1 (size-240 has been used). The beaker shall be placed in a suitable oven at  $257^{\circ} \pm 2^{\circ}\text{F}$  with vent open. After the fluid has reached the test temperature (approximately 2 hours) the vent shall be closed and the beaker left in the oven for a total aging time of 70 hours. At the end of the aging time the specimens shall be removed from the compression plates immediately and allowed to cool on paper towels for 30 minutes. Excess fluid shall be blotted from the specimens with paper towels and the final thickness determined.

## 5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A, B, or C as specified (see 6.2).

### 5.1.1 Level A

5.1.1.1 Type I material. Type I material (O-rings) shall be packaged in accordance with MIL-P-4861.

### 5.1.1.2 Type II material

5.1.1.2.1 Sheets. Rubber sheets shall be interleaved with any suitable paper which will extend over the full area of contact between sheets. Unit quantity shall be a stack not to exceed 10 inches.

5.1.1.2.2 Strip. Rubber strips shall be wound on suitable cores which provide rigid support and which will not distort nor change shape during handling or shipping. Unless otherwise specified, each core shall contain  $75 \pm 1$  foot and shall be wrapped in kraft paper conforming to UU-P-268 and sealed with tape conforming to UU-T-111.

5.1.1.2.3 Extruded shapes. Extruded rubber shapes shall be wrapped in kraft paper conforming to UU-P-268 and sealed with tape conforming to UU-T-111.

5.1.1.2.4 Molded parts. Molded rubber parts shall be packaged in containers conforming to PPP-B-636. The unit quantity shall be 25, or as specified by the procuring activity (see 6.2).

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**5.1.2 Level C.** Synthetic rubber shall be packaged in accordance with the manufacturer's commercial practice.

**5.2 Packing.** Packing shall be level A, B, or C as specified (see 6.2).

**5.2.1 Level A**

**5.2.1.1 Type I material.** Type I material shall be packed in accordance with MIL-P-4861, except that only fiberboard containers shall be used.

**5.2.1.2 Type II material.** Shipping containers shall contain identical synthetic rubber items of the same type and size and shall inclose the contents in a snug, tight-fitting manner. The inside height of the containers for rubber sheet shall not exceed 10 inches. Rubber strip shall be packed one roll per container. Containers for extruded rubber shapes shall have an inside maximum cross-sectional area of 36 square inches and, unless otherwise specified by the procuring activity, a maximum length of 10 feet. Unless otherwise specified by the procuring activity, type II material shall be packed in overseas-type wooden containers conforming to PPP-B-601 or PPP-B-621. Plywood, if used, shall conform to type I or II, class 2 of NN-P-515. The gross weight of the container shall not exceed 200 pounds.

**5.2.2 Level B.** Types I and II material, packaged in accordance with 5.1.1, shall be packed in domestic-type exterior containers conforming to PPP-B-636. Exterior containers shall be of minimum cube and tare consistent with the protection required. As far as practical, exterior containers shall be of uniform shape and size and contain identical quantities. The gross weight of each pack shall be limited to approximately 160 pounds. Containers shall be closed and strapped in accordance with the applicable container specification or appendix thereto.

**5.2.3 Level C.** Packages which require overpacking for acceptance by the carrier shall be packed in exterior-type shipping containers in a manner that will insure safe transportation at the lowest rate to the point of delivery. Containers shall meet the Uniform Freight Classification Rules or regulations of other common carriers, as applicable to the mode of transportation.

**5.3 Marking for shipment.** Interior packages and exterior shipping containers shall be marked in accordance with MIL-STD-129. The nomenclature shall be as follows:

RUBBER (Angle, Channel, Special-Shaped Section, as applicable),  
 SOLID (Molded, Extruded, as applicable), (inches by cross  
 section by inches long, MS Part Number, as applicable)  
 MIL-R-7362D type I or type II.  
 Applicable data shall be entered by the contractor.

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5.3.1 In addition to the nomenclature specified in 5.3, the following information shall be added:

Date of cure \_\_\_\_\_  
 STORE IN A COOL, DRY PLACE, PROTECTED FROM  
 SOURCES OF OZONE

## 6. NOTES

6.1 Intended use. The synthetic materials are intended for use where resistance to diester synthetic engine oils is required.

6.2 Ordering data. Procurement documents should specify:

- a. Title, number, and date of this specification.
- b. Type (see 1.2).
- c. Dimensions and tolerances (see 3.3).
- d. Quantity.
- e. Detail drawings and additional specification, if any.
- f. Unit quantity of molded parts, if other than 25 (see 5.1.1.2.4).
- g. Preproduction tests waiver, if applicable (see 6.3).
- h. Applicable levels of packaging and packing (see section 5).

6.3 Waiver. The preproduction tests need not be repeated for new orders or different parts provided the materials and processes have not been changed and a certified statement to this effect is furnished to the procuring activity. The waiving of the preproduction tests will be strictly at the discretion of the procuring activity. Test results to previous revisions of this specification are not acceptable.

6.4 Source of fluid. Stauffer Blend 7700 may be obtained from Stauffer Chemical Company, Specialty Chemicals Division, 380 Madison Avenue, New York, New York 10017.

### Custodians:

Army - MR  
 Navy - AS  
 Air Force - 11

### Preparing activity:

Air Force - 11

Project No. 9320-0078

### Reviewer activities:

Army - MR, MI, MJ, WC  
 Navy - AS  
 Air Force - 11, 69

Code "C"

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

*(See Instructions – Reverse Side)*

1. DOCUMENT NUMBER	2. DOCUMENT TITLE
3a. NAME OF SUBMITTING ORGANIZATION	4. TYPE OF ORGANIZATION <i>(Mark one)</i> <input type="checkbox"/> VENDOR  <input type="checkbox"/> USER  <input type="checkbox"/> MANUFACTURER  <input type="checkbox"/> OTHER <i>(Specify)</i> _____
b. ADDRESS <i>(Street, City, State, ZIP Code)</i>	
5. PROBLEM AREAS	
a. Paragraph Number and Wording:	
b. Recommended Wording	
c. Reason/Rationale for Recommendation	
6. REMARKS	
7a. NAME OF SUBMITTER <i>(Last, First, MI) – Optional</i>	b. WORK TELEPHONE NUMBER <i>(Include Area Code) – Optional</i>
c. MAILING ADDRESS <i>(Street, City, State, ZIP Code) – Optional</i>	8. DATE OF SUBMISSION <i>(YYMMDD)</i>

**INSTRUCTIONS:** In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (*DO NOT STAPLE*), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

**NOTE.** This form may not be used to request copies of documents, nor to request 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.

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