

INCH- POUND

ZZ-G-710B  
5 April 1993  
SUPERSEDING  
ZZ-R-710a  
May 11, 1967  
(See 6.6)

## FEDERAL SPECIFICATION

### GASKET MATERIAL, RUBBER 35 DUROMETER HARDNESS

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

#### 1. SCOPE

1.1 Scope. This specification establishes the requirements for vulcanized rubber gasket material of 35 durometer hardness for use in airports, airtight and watertight doors, and hatches (see 6.2).

#### 2. APPLICABLE DOCUMENTS

##### 2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

#### SPECIFICATIONS

##### FEDERAL

PPP-F-320 - Fiberboard, Corrugated and Solid, Sheet  
Stock (Container Grade), and Cut Shapes.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, SEA 05Q42, Naval Sea Systems Command, 2531 Jefferson Davis Hwy., Arlington, VA 22242-5160 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 5330

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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### MILITARY

- MIL-P-116 - Preservation, Methods of.
- MIL-P-4861 - Packing, Preformed, Rubber, Packaging of.
- MIL-L-19140 - Lumber and Plywood, Fire-Retardant Treated.

### STANDARDS

#### FEDERAL

- FED-STD-123 - Marking for Domestic Shipment (Civilian Agencies).
- FED-STD-601 - Rubber: Sampling and Testing.

#### MILITARY

- MIL-STD-190 - Identification Marking for Rubber Products.
- 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-2073-1 - DOD Material Procedures for Development and Application of Packaging Requirements.

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

#### AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- D 412 - Rubber Properties on Tension.
- D 3951 - Standard Practice for Commercial Packaging.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

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2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

## 3. REQUIREMENTS

3.1 Material. The material shall be vulcanized rubber (natural or synthetic) which meets the requirements specified herein.

3.2 Form. The rubber gasket material shall be furnished in the form specified (see 6.2). This form may be sheets, strips of rectangular cross section, shapes cut from sheets, molded shapes or extruded shapes.

3.2.1 Sheet. Sheet rubber shall have smooth surfaces and shall have the thickness specified (see 6.2). Unless otherwise specified (see 6.2), the tolerances in thickness specified in table I shall apply. Sheet rubber shall be furnished in rolls  $36 \pm 1$  inch wide.

3.2.2 Strip. Strip rubber of rectangular cross section shall have smooth surfaces and shall have the cross sectional dimensions specified (see 6.2). Unless otherwise specified (see 6.2), the tolerances in thickness and width specified in table I shall apply.

TABLE I. Tolerances in width and thickness.

Width, inch	Width tolerance ( $\pm$ )	Thickness, inch	Thickness tolerance ( $\pm$ )
Less than 1/16	0.010 inch	1/32 to 1/16	0.008 inch
Over 1/16 to 1/8, incl.	0.016 inch	Over 1/16 to 1/8 incl.	0.016 inch
Over 1/8 to 1/2, incl.	0.031 inch	Over 1/8 to 1/2, incl.	0.031 inch
Over 1/2 to 1, incl.	0.047 inch	Over 1/2 to 1, incl.	0.047 inch
Over 1 to 2, incl.	0.062	Over 1	6 percent
Over 2	3 percent		

3.2.3 Cut, and extruded shapes. Cut, molded and extruded shapes shall have the form, dimensions, and tolerances specified (see 6.2).

3.3 Physical requirements. The rubber gasket material shall conform to the requirements specified in table II. The test procedures are detailed in 4.5.

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TABLE II. Physical requirements of rubber.

Properties	Requirement	Test procedure
Initial properties:		
Tensile strength, psi, minimum	2000	4.5.1
Ultimate elongation, percent, minimum	650	4.5.1
Hardness, durometer points	$35 \pm 5$	4.5.2
Specific gravity, maximum	1.20	4.5.3
Properties after oven aging:		
Tensile strength, percent of initial, minimum	80	4.5.4
Compression set, percent, maximum	45	4.5.5
Properties after light aging:		
Tensile strength, percent of initial, minimum	63	4.5.6
Ultimate elongation, percent of initial, minimum	80	4.5.6
Modulus at 500 percent elongation, percent of initial	80 to 120	4.5.6
Delamination after immersion:	no delamination	4.5.7
Tensile strength after immersion, percent of initial, minimum	60	4.5.8

3.4 Identification markings. Unless otherwise specified (see 6.2), the vulcanized rubber gasket material shall be marked in accordance with MIL-STD-190. In addition, the identification markings shall indicate the specification number and date of cure (quarter and year). The markings shall be 1/4 inch high occurring every 6 inches continuously across the sheet and recurring lengthwise every 4 inches on one side only.

3.5 Workmanship. The workmanship shall be such as to meet the applicable requirements of this specification. The material shall be free from all foreign matter that may effect the serviceability of the finished product.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the 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 ensure supplies and services conform to prescribed requirements.

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4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of the manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.2 Sampling.

4.2.1 Lot. For the purposes of sampling, examination, and tests, a lot shall consist of not more than 2500 pounds of material of the same form and dimensions, produced in one plant under essentially the same conditions, and offered for delivery at one time.

4.2.2 Sampling for visual and dimensional examination. For the examination specified in 4.4, representative samples shall be taken at random from each lot in accordance with table III.

TABLE III. Sampling for examination.

<u>Lot size</u>	<u>Sample size</u>		<u>Accept</u>	<u>Reject</u> 1 2 3
	Major defects	Total defects (major plus minor)		
1 to 15	all	5	0	1
16 to 25	15	10	0	1
26 to 90	25	15	0	1
91 to 150	35	25	0	1
151 to 280	40	30	0	1
281 to 500	50	40	0	1
501 to 1200	65	55	0	1
1201 and over	80	70	0	1

- 1 All defective items shall be replaced with acceptable items prior to lot acceptance.
- 2 Inspect sample size until reject criteria is reached. If reject criteria is reached, reject the entire lot.
- 3 Reject lots shall be screened and resubmitted for inspection and test.

4.2.2.1 Major defect and minor defect as used in table III are defined as follows: A major defect is a defect that is likely to result in failure, or to reduce materially the useability of the unit of product for its intended purpose. A minor defect is a defect that is not likely to reduce materially

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the useability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.

4.3 Sampling for quality conformance and production check tests. For the tests specified in 4.4.4 and 4.4.5, four samples shall be taken from each lot. Each sample shall consist of a quantity of material sufficient to perform all the tests of 4.4.4 or 4.4.5, as applicable. The samples shall be taken from those of the rolls or gaskets selected in accordance with 4.2.2 and if possible, no two samples shall be taken from the same roll. If the materials supplied are of such size or shape that the necessary test specimens cannot be prepared from them, the supplier shall furnish four sample pieces 6 inches long by 6 inches wide by  $0.080 \pm 0.010$  inch thick and one sample piece at least 6 inches long by 4 inches wide by 1/2 inch thick. The sample pieces furnished shall be certified to be identical in cure and composition on the material used for the lot submitted.

4.4 Examination and tests.

4.4.1 Examination of material. Each of the samples taken in accordance with 4.3.2 shall be subjected to surface examination for workmanship, appearance, dimensions and tolerances. The sample unit for examination shall be one sheet, strip, shape, or gasket, as applicable. MIL-STD-289, MIL-STD-298, and MIL-STD-407 shall be used to determine and evaluate visual defects. Defect not covered in these standards is odor. Strong or objectionable odor is a major defect. Also illegible marking or marking not as required shall be considered a minor defect. Some defects to be looked for in this examination are as follows: cuts, tears, punctures, non-uniform texture, lack of flexibility, rough finish, presence of dirt, foreign material, and imbedded particles.

4.4.2 Rejection. Any defects shall be cause for rejection of the entire lot represented by the sample.

4.4.3 Production check tests. Production check tests shall be conducted on samples from (or representing) the first lot of material and from every tenth lot thereafter. All the tests specified in 4.5 shall be conducted.

4.4.4 Quality conformance tests. Quality conformance tests shall be conducted on samples from (or representing) all lots on which production check tests were not performed. The tests specified in 4.5.1, 4.5.2, and 4.5.3 shall be conducted.

4.4.5 Action in case on non-conformance. If any of the samples in the production check tests or quality conformance tests is found not to be in conformance with the requirements of this specification, this shall be cause for rejection of the lot which it represents. Furthermore, production check

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tests shall be performed on each succeeding lot of the contract or purchase order. This additional testing shall be discontinued, except as specified in 4.4.3, after four successive lots have passed the production check tests.

#### 4.5 Test methods.

4.5.1 Tensile properties. Tensile properties shall be determined in accordance with ASTM D 412 and methods 4111 and 4131, respectively, of FED-STD-601. Die III specimens,  $0.080 \pm 0.010$  inch thick, shall be used for all determinations of tensile properties.

4.5.2 Hardness. Hardness shall be determined by method 3021 of FED-STD-601 using a Shore A durometer. A 3-second reading shall be taken. The specimens shall be at least  $1/4$  inch thick but not more than  $1/2$  inch thick. Plyed up specimens may be used.

4.5.3 Specific gravity. The specific gravity shall be determined by the hydrostatic method 14011 of FED-STD-601.

4.5.4 Tensile strength after oven aging. Tensile strength shall be determined, after oven aging in accordance with method 7221 of FED-STD-601. The aging period shall be  $46 \pm 1/4$  hours at  $194 \pm 1.8^{\circ}\text{F}$  ( $90 \pm 1^{\circ}\text{C}$ ). Determination shall be made not less than 20 hours nor more than 48 hours after removal from the oven.

4.5.5 Hot compression set. Hot compression set shall be determined by method 3311 of FED-STD-601, with specimens clamped to 40 percent deflection and aged for  $46 \pm 1/4$  hours at  $194 \pm 1.8^{\circ}\text{F}$  ( $90 \pm 1^{\circ}\text{C}$ ).

4.5.6 Tensile properties after light-aging. Specimens shall be light-aged in accordance with method 7311 of FED-STD-601, except that the specimens shall be  $0.080 \pm 0.010$  inch thick and the exposure time shall be  $50 \pm 1/4$  hours with four of the "Corex D" filters removed. After light-aging, the tensile properties shall be determined as specified in 4.5.1.

4.5.7 Delamination. The delamination test shall be conducted in accordance with method 6311 of FED-STD-601.

4.5.8 Tensile strength after immersion. The tensile strength shall be determined after immersion in distilled water in accordance with method 6111 of FED-STD-601 except that the immersion temperature shall be  $212 \pm 2^{\circ}\text{F}$  ( $100 \pm 1.1^{\circ}\text{C}$ ) and the immersion time shall be  $70 \pm 1/4$  hours.

4.6 Inspection of packaging. The inspection of preservation, packing and marking for shipment, stowage, and storage shall be in accordance with the requirements of section 5 and the documents specified therein.

#### 5. PACKAGING



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(The packaging requirements specified herein apply only for direct Government acquisition.)

### 5.1 General.

#### 5.1.1 Navy fire-retardant requirements.

- (a) Treated lumber and plywood. When specified (see 6.2), all lumber and plywood including laminated veneer material used in shipping container and pallet construction, members, blocking, bracing, and reinforcing shall be fire-retardant treated material conforming to MIL-L-19140 as follows:

Levels A and B	- Type II	- Weather resistant.
	Category 1	- General use.
Level C	- Type I	- Non-weather resistant.
	Category 1	- General use.

- (b) Fiberboard. Fiberboard used in the construction of class-domestic, non-weather resistant fiberboard and cleated fiberboard boxes including interior packing forms shall meet the flamespread index and the specific optic density requirements of PPP-F-320 and amendment thereto.
- (c) Cushioning and wrapping materials. The use of excelsior, newspaper, shredded paper (all types), and similar hydroscopic or nonneutral materials and all types of loose fill materials for packaging applications such as cushioning, fill, stuffing, and dunnage is prohibited. Materials selected for cushioning and wrapping shall have properties (characteristics) for resistance to fire (see 6.4). Cushioning or wrapping materials, as applicable, shall be provided to prevent item and package damage and to prevent free movement of the container contents.

#### 5.1.2 Asbestos.

5.1.2.1 Dusting material. Unless otherwise specified (see 6.2), dusting material such as talc, talcum and powdered soapstone shall be asbestos free (see 6.3).

5.2 Preservation. Preservation shall be level A, C or commercial as specified (see 6.2).

5.2.1 Level A. The rubber gasket material in the form specified (see 3.2), shall be dusted (see 5.1.2) and unit protected to meet the requirements of MIL-P-116, method III (physical and mechanical protection), except as otherwise specified herein, and as follows:



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- (a) Sheets. Sheets, in dimensions specified (see 3.2.1), shall be interleaved with either a kraft paper or plastic film, rolled and secured to prevent unrolling. Rolls shall be individually wrapped with waterproof, kraft paper or plastic and the wrapped secured by use of adhesive, ties, pressure sensitive tape or non-metallic banding.
- (b) Strips. Strips, in dimensions specified (see 3.2.2), shall be interleaved, coiled, with each coil wrapped and secured as specified for sheets. Coils shall be individually unit packed in a water resistant folding, set-up, or metal edged paperboard or fiberboard box. Unit container requirements shall conform to table I, Appendix F of MIL-STD-2073-1. Unless otherwise specified (see 6.2), box closure shall be in accordance with the applicable box specification.
- (c) Cut, molded and extruded shapes. Shapes, in the form and dimensions specified (see 3.2.3), except for preformed packings (see 5.2.4), shall be wrapped and individually unit packed as specified for strips.

5.2.2 Level C. Gasket material in the form and dimensions specified (see 3.2), shall be preserved as specified under level A except that the unit containers specified in 5.2.1 (b), shall be as follows:

- (a) The paperboard containers shall be of the domestic or non-weather resistant type, class or variety as applicable and,
- (b) The fiberboard box shall be of the class-domestic/fire-retardant material (see 5.1.1. (b)). The box closure shall be in accordance with method I using pressure sensitive adhesive tape.

5.2.3 Commercial. Commercial packaging (cleaning, preservation, cushioning, and unit pack) shall be in accordance with ASTM D 3951.

5.2.4 Preformed packing (o-ring). Preparation (preservation, unit and intermediate packaging) of preformed packing (see 3.2.1) shall be in accordance with MIL-P-4861 for the level specified (see 6.2), and 5.1 herein.

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

5.3.1 General requirements for levels A, B and C. Containers selected (see 5.3.2), shall be of minimum weight and cube consistent with the protection required, of uniform size, and contain identical quantities of identical gasket material.

5.3.2 Levels A, B and C containers. Gasket material preserved as specified (see 5.2), shall be packed in exterior shipping containers for the level of packing specified (see 5.3), in accordance with table VII of MIL-STD-2073-1, Appendix C, and herein. Unless otherwise specified (see 6.2), container selection shall be at the contractor's option.

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5.3.2.1 Caseliners, closure and gross weight.

5.3.2.1.1 Caseliners. When specified (see 6.2), level A shipping containers containing items preserved level C or commercial shall be provided with waterproof caseliners in accordance with MIL-STD-2073-1.

5.3.2.1.2 Closure. Container closure, reinforcing, or banding shall be in accordance with the applicable container specification or appendix thereto except that weather-resistant fiberboard boxes shall be closed in accordance with method V and reinforced with non-metallic or tape banding and domestic or fire retardant fiberboard boxes shall be closed in accordance with method I using pressure sensitive tape.

5.3.2.1.3 Weight. Wood, plywood, and cleated type containers exceeding 200 pounds gross weight shall be modified by the addition of skids in accordance with MIL-STD-2073-1 and the applicable container specification or appendix thereto.

5.3.3 Commercial. Gasket material preserved as specified (see 5.2) shall be packed for shipment in accordance with ASTM D 3951 and herein.

5.3.3.1 Container modification. Shipping containers exceeding 200 pounds gross weight shall have a minimum of two, 3-inch by 4-inch nominal wood skids laid flat, or a skid or sill type base which will support the material and facilitate handling by mechanical handling equipment during shipment, stowage and storage.

5.4 Marking.

5.4.1 Military activities (levels A, B, C and commercial). In addition to any special marking required (see 6.2), interior packs and shipping containers shall be marked including bar coding and the material cure date (quarter and year) for shipment, stowage, and storage in accordance with MIL-STD-2073-1, Appendix F. In addition, preformed packing material shall include the markings of MIL-P-4861.

5.4.2 Civilian activities. In addition to any special marking required (see 6.2), interior packs and shipping containers shall be marked including bar coding and material cure date (quarter and year) in accordance with FED-STD-123. In addition, preformed packing material shall include the markings of MIL-P-4861.

## 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

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6.1 Intended use. This specification describes material required in gaskets for rescue chambers, hatches, airport, airtight and watertight doors aboard submarines. This material is not intended for general gasket use in electrical and mechanical equipment.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- (a) Title, number, and date of this specification.
- (b) Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
- (c) Form of material required (see 3.2).
- (d) Dimensions and tolerances required (see 3.2).
- (e) Identification marking, if different (see 3.4).
- (f) When fire-retardant treated lumber and plywood is required (see 5.1.1 (a)).
- (g) When a certificate of compliance is not required (see 5.1.2.1).
- (h) Level of preservation and level of packing required (see 5.2, 5.2.4 and 5.3).
- (i) Container selection and options if other than the contractor's (see 5.2.1 (b) and 5.3.2).
- (j) When caseliners are not required (see 5.3.2.1.1).
- (k) Special marking required (see 5.4.1 and 5.4.2).

6.3 Consideration of data requirements. The following data requirements should be considered when this specification is applied on a contract. The applicable Data Item Descriptions (DIDs) should be reviewed in conjunction with the specific acquisition to ensure that only essential data are requested/provided and that the DIDs are tailored to reflect the requirements of the specific acquisition. To ensure correct contractual application of the data requirements, a Contract Data Requirements List (DD Form 1423) must be prepared to obtain the data, except where DoD FAR Supplement 27.475-1 exempts the requirement for a DD Form 1423.

<u>Reference paragraph</u>	<u>DID number</u>	<u>DID title</u>	<u>Suggested Tailoring</u>
5.1.2.1	DI-NDTI-80809	Test, Inspection Reports Use	contractor format

The above DIDs were those cleared as of the date of this specification. The current issue of DoD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL), must be researched to ensure that only current, cleared DIDs are cited on the DD Form 1423.

6.4 Cushioning and wrapping materials (see 5.1.1 (c)). Materials having properties for resistance to fire and acceptable for use within unit packs and shipping containers for Navy acquisitions are:

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<u>Material</u>	<u>Specification</u>
Paper, Kraft, Treated (Fire Resistant)	A-A-1894
Paper, Kraft, Wrapping	UU-P-268, Type II, Grade C or D
Fiberboard	PPP-F-320, Class - Domestic/Fire Retardant
Plastic Film, Flexible, Cellular	PPP-C-795, Class 3 - Fire Retardant
Polystyrene Expanded, Resilient	PPP-C-850, Grade SE
Plastic, Open Cell, Cushioning	PPP-C-1842, Type I, Style B
Bound Fiber	PPP-C-1120, Type III or IV, Class C
Rubber, Latex Foam	MIL-R-5001, Grade A
Rubber, Cellular	MIL-R-6130, Grade A
Fibrous Glass	MIL-C-17435
Polystyrene Foam	MIL-P-19644, Type II
Rubber, Cellular, Synthetic	MIL-R-20092, Class 5
Polyurethane Foam	MIL-P-26514
Polyurethane Foam, Flexible, Open Cell	MIL-F-81334
Foam-In-Place Packaging Materials:	MIL-F-83671
General Specification For	
Foam, Combustion, Retardant, for Cushioning	MIL-F-87090(SA)
Supply Items Aboard Navy Ships	

6.5 Subject term (key word) listing.

Airport door  
Airtight door  
Hatches  
Sheets  
Strips  
Vulcanized  
Watertight

6.6 Change from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

## Custodians:

Army - ME  
Navy - SH

## Review activities:

Army - ME  
Navy - SH  
DLA - IS

## User activity:

Navy - AS, OS

## Preparing activity:

Navy - SH  
(Project 5330-0832)

## Civil agency interest:

COM - NIST  
GSA - FSS

# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

## INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of 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.

### I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER  
ZZ-G-710B

2. DOCUMENT DATE (YYMMDD)  
93-04-05

### 3. DOCUMENT TITLE

GASKET MATERIAL, RUBBER 35 DUROMETER HARDNESS

### 4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

### 5. REASON FOR RECOMMENDATION

### 6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)  
(1) Commercial  
(2) AUTOVON  
(if applicable)

7. DATE SUBMITTED  
(YYMMDD)

### 8. PREPARING ACTIVITY

a. NAME TECHNICAL POINT OF CONTACT TPOC:  
MR. RICHARD DEMPSEY (05M3)

b. TELEPHONE (Include Area Code)  
(1) Commercial

(2) AUTOVON

EASE ADDRESS ALL CORRESPONDENCE TO:

(703) 602-0146

8-332-0146

ADDRESS (Include Zip Code)  
COMMANDER, SEA 05Q42  
NAVAL SEA SYSTEMS COMMAND  
2531 JEFFERSON DAVIS HWY  
ARLINGTON, VA 22242-5160

IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:  
Defense Quality and Standardization Office  
5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466  
Telephone (703) 756-2340 AUTOVON 289-2340