Downloaded from http://www.everyspec.com

MIL-M-15562E(NAVY)
17 June 1976
SUPERSEDING
MIL-M-15562D(NAVY)
17 June 1974
(See 6.5)

MILITARY SPECIFICATION

MATTING OR SHEET, FLOOR COVERING, INSULATING FOR HIGH VOLTAGE APPLICATION

This specification is approved for use by all interested Commands of the Department of the Navy and the Marine Corps and is available for use by all other Departments and agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers rubber or plastic matting and sheet floor coverings for use around electrical apparatus or circuits as a safety measure to protect personnel from accidental electric grounding not exceeding 3000 volts. Equipment operating at higher voltages shall utilize other built-in safety measures to provide personnel protection.

1.2 Classification. Material shall be of the following types, as specified (see 6.2.1).

Type I - Sheet, Smooth Surface.
Type II - Mat, Runner Type.

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

MILITARY
MIL-T-40625 - Tubing, Bias Sewn (Burlap or Osnaburg) Cloth.
MIL-C-45662 - Calibration System Requirements.

STANDARDS

FEDERAL
FED-STD-501 - Floor Coverings, Resilient, Nontextile: Sampling and Testing.
FED-STD-595 - Colors.
FED-STD-601 - Rubber: Sampling and Testing.

MILITARY
MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129 - Marking for Shipment and Storage.
MIL-STD-407 - Visual Inspection Guide for Rubber Molded Items.
MIL-STD-1623 - Fire Performance Requirements and Approved Specifications for Interior Finish Materials and Furnishing (Naval Shipboard Use).

(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.)

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.

UNIFORM CLASSIFICATION COMMITTEE
Uniform Freight Classification Rules.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Ship Engineering center, Center Building, SEC 6124, Prince George's Center, Hyattsville, Maryland 20782 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

Downloaded from http://www.everyspec.com

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, Illinois 60606.)

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION INCORPORATED, AGENT
National Motor Freight Classification Rules.

(Application for copies should be addressed to the National Motor Freight Traffic Association, Inc., 1616 P Street, N.W., Washington, D.C. 20036.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
D 412 - Tension Testing of Vulcanized Rubber.
D 1204 - Changes in Linear Dimensions of Nonrigid Thermoplastic Sheeting or Film Measuring.
D 1242 - Resistance to Abrasion of Plastic Materials, Test for.
D 2240 - Indentation Hardness of Rubber and Plastics by Means of a Durometer, Test for.

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

(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 First article. When specified (see 6.2.1), the contractor shall furnish sample unit(s) for first article inspection and approval (see 4.3 and 6.3).

3.2 Material. The floor covering shall be made from a compound utilizing synthetic rubber, reclaimed rubber, polyvinyl chloride, a copolymer of polyvinyl chloride and polyvinyl acetate, or a combination thereof. The use of ingredients which would tend to emit objectionable odors in service are prohibited.

3.3 Construction. The floor covering material shall have a smooth wearing surface free from blisters, cracks, protruding particles, and embedded foreign matter. The color, finish, and wearing surface shall be uniform throughout the full thickness of the flooring material or when the top wear surface is calendered to the base sheet (laminated construction), the wear surface shall show evidence of marbleizing despersed throughout the full thickness of the wear surface. The back side of the floor covering shall be sanded, roughened, knurled, or finished with a cloth fabric or cloth imprint. Type II material shall have finished straight edges.

3.4 Thickness. The thickness of types I and II material shall be 0.125 inch minimum. The wear surface, if calendered to a base sheet, shall be at least 0.040 inch thick.

3.5 Size. Unless otherwise specified in 6.2.1 the length of the rolls shall be 25 ± 3 yards. Unless otherwise specified in 6.2.1 type I shall be available in 36 or 72 inch widths with no minus tolerance. Unless otherwise specified in 6.2.1, type II shall be available in a 36 inch width with no minus tolerance with finished straight edges.

3.6 Color.

3.6.1 Type I. The color, finish, wearing surface, and mottling shall match a sample agreed upon by buyer and seller. In marbleized or mottled flooring, the marbleized or mottling shall be worked throughout the full thickness of the material or the wear surface, if the wear surface is calendered to the base sheet.

3.6.2 Type II. The basic or background (if mottled or marbleized pattern) color shall correspond to blue, number 15177; gray, number 36231 or green, number 14223 of FED-STD-595 or as specified (see 6.2.1). A solid, marbleized or mottled pattern shall match a sample as agreed upon by buyer and seller.

3.7 Tensile strength.

3.7.1 As-received condition (initial). The tensile strength of the floor covering in the as-received condition shall be not less than 800 pounds per square inch (lb/in^2) when tested as specified in 4.7.1.

Downloaded from http://www.everyspec.com

3.7.2 After immersion in sulfuric acid. The floor covering, after being subjected to the immersion test specified in 4.7.2, shall have a tensile strength of at least 70 percent of the initial tensile strength.

3.7.3 After oxygen bomb aging. The floor covering after being subjected to the test specified in 4.7.3, shall have a tensile strength of at least 80 percent of initial tensile strength.

3.7.4 After light aging. The floor covering after exposure to the light aging test specified in 4.7.4, shall have a tensile strength of at least 65 percent of the initial tensile strength.

3.8 Ultimate elongation. The ultimate elongation for type I shall be not less than 75 percent and for type II not less than 100 percent when tested as specified in 4.7.5.

3.9 Permanent set. The permanent set shall be not greater than 25 percent when tested as specified in 4.7.6.

3.10 Hardness. The material, when tested as specified in 4.7.7, shall have a shore A Durometer hardness of 95 ± 5 for type I and 80 ± 5 for type II.

3.11 Abrasion resistance. The thickness loss of three samples, averaged, shall not exceed 10 mils for type I and 20 mils for type II when tested as specified in 4.7.8.

3.12 Flexibility. The floor covering shall not crack nor show any indication of weakness when tested as specified in 4.7.9.

3.13 Voltage. The floor covering shall not puncture, become appreciably warm at any spot, nor show any other sign of weakness when tested as specified in 4.7.10.

3.14 Dielectric strength. The floor covering shall not fail at less than 30,000 volts when tested as specified in 4.7.11.

3.15 Fire resistance. The floor covering shall conform with the requirements as set forth in MIL-STD-1623 (see 4.7.12).

3.16 Dimensional stability. The floor covering shall not change in linear dimensions more than plus or minus 0.020 inch per linear foot for type I and plus or minus 0.250 inch per linear foot for type II (see 4.7.13).

3.17 Identification marking. The floor covering shall be permanently and legibly marked on the backside, (underside) with the name of the manufacturer or his registered trademark, specification number, month and year of manufacture. Markings shall be repeated at least once every six feet.

3.18 Workmanship. The occurrence of defects shall not exceed the applicable acceptable quality levels when visually and dimensionally examined as specified in 4.4.5.1. The floor covering shall have a smooth wearing surface free from blisters, cracks, protruding particles, and embedded foreign matter.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance 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 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 assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

(a) First article inspection (see 4.3).
(b) Quality conformance inspection (see 4.4).

4.3 First article inspection. First article inspection shall consist of the examination and tests specified in table I.

Downloaded from http://www.everyspec.com

TABLE I. Test Methods.

Property	Test requirements		Applicable paragraph	Test method paragraph
	Type I	Type II		
Thickness, inch, minimum	0.125	0.125	3.4	-----
Color	-----	-----	3.6	-----
Tensile strength, lb/in^2				
Initial	800	800	3.7.1	4.7.1
after immersion sulphuric acid	70 percent of initial	70 percent of initial	3.7.2	4.7.2
after oxygen bomb, aging	80 percent of initial	80 percent of initial	3.7.3	4.7.3
after light aging	65 percent of initial	65 percent of initial	3.7.4	4.7.4
Ultimate elongation, percent min.	75	100	3.8	4.7.5
Permanent set, percent max.	25	25	3.9	4.7.6
Hardness	95 ± 5	80 ± 5	3.10	4.7.7
Abrasion resistance, mils. loss, max.	10	20	3.11	4.7.8
Flexibility	shall pass	shall pass	3.12	4.7.9
Voltage	shall pass	shall pass	3.13	4.7.10
Dielectric strength, volts, min	30,000	30,000	3.14	4.7.11
Fire resistance	shall pass	shall pass	3.15	4.7.12
Dimensional stability, inch/foot	± 0.020	± 0.250	3.16	4.7.13
Identification marking	-----	-----	3.17	-----

4.3.1 Test reports. The supplier shall prepare a first article test report in accordance with the data ordering document included in the contract or order (see 6.2.2). A copy of the first article test report shall be forwarded to the Commander, Naval Ship Engineering Center (Engineering Materials and Services Office), Center Building, Prince George's Center, Hyattsville, Maryland 20782.

4.3.2 Test equipment and inspection facilities. Test and measuring equipment and inspection facilities of sufficient accuracy, quality, and quantity to permit performance of the required inspection shall be established and maintained by the supplier. The establishment and maintenance of a calibration system to control the accuracy of the measuring and test equipment shall be in accordance with MIL-C-45662 (see 6.4).

4.4 Quality conformance inspection.

4.4.1 Lot. A lot shall consist of not more than 500 rolls of material of one width offered for delivery at one time.

4.4.2 Sampling for quality conformance inspection.

4.4.2.1 Matting or sheeting. A random sample of rolls of material shall be selected in accordance with sampling requirements in MIL-STD-105. Acceptance Quality Level (AQL) shall be 2.5 percent defective, inspection level I.

4.4.3 Sampling for quality conformance tests. For the tests specified in 4.5, except for voltage, a 2-square-foot sample shall be taken from each of four of the sample rolls selected from each lot in accordance with 4.4.2.1. If the lot contains less than four rolls, each roll shall be sampled. For the voltage test, the entire area of the samples selected in 4.4.2.1 shall be tested as described in 4.7.10.

4.4.4 Sampling for production check tests. With the first lot of material offered for delivery under a contract or order, and normally, once thereafter for every 10 lots which have passed quality conformance inspection, sufficient material shall be taken from each of the sample rolls selected as specified in 4.4.3 for the production check tests specified in 4.6.

Downloaded from http://www.everyspec.com

4.4.5 Visual and dimensional examination.

4.4.5.1 Flooring material. Each of the sample rolls of the sheet or matting selected in accordance with 4.4.2.1 shall be visually and dimensionally examined to verify compliance with 3.4, 3.5, 3.6, and 3.17. The surfaces shall be examined for the visual defects described in MIL-STD-407 to determine conformance with 3.17. Any roll in the sample containing one or more visual or dimensional defects shall be cause for rejection, and if the number of defective rolls in any sample exceeds the acceptance number for that sample, it shall be cause for rejection of the lot represented by that sample.

4.5 Quality conformance tests. Each of the samples selected in accordance with 4.4.3 shall be subjected to the following tests:

Test	Paragraph
Tensile Strength (initial only)	4.7.1
Ultimate elongation	4.7.5
Hardness	4.7.7
Flexibility	4.7.9
Voltage	4.7.10
Dielectric strength	4.7.11
Fire resistance	4.7.12
Dimensional stability	4.7.13

4.6 Production check tests. Each of the samples selected in accordance 4.4.4 shall be subjected to the following tests:

Test	Paragraph
Tensile strength	
after immersion	4.7.2
after oxygen bomb aging	4.7.3
after light aging	4.7.4
permanent set	4.7.6
abrasion resistance	4.7.8

4.6.1 Action in case of failure. If a sample selected in accordance with 4.4.4 fails any of the tests specified in 4.6, it shall be cause for rejection of the lot.

4.7 Test procedures. Unless otherwise specified (see 6.2.1), all specimens shall be conditioned for at least 16 hours at 27° ± 4° Celcius (C) before being tested, and the tests shall be performed within this temperature range.

4.7.1 Tensile strength. Tensile strength shall be determined in accordance with ASTM D 412 using die C for preparing dumbbell specimens.

4.7.2 Immersion test. Three dumbbell rubber test specimens of the size specified in 4.7.1 shall be used. Both sides of the specimens shall be buffed. The specimens shall be immersed and tested for tensile strength in accordance with method 6121 of FED-STD-601. The immersion medium shall be a 20 percent by weight sulfuric acid solution and the immersion temperature shall be 70° ± 1°C. After immersion, the specimens shall be removed, rinsed lightly with water at room temperature, and blotted lightly with filter paper. The specimens shall then be suspended or placed on a screen and allowed to dry at room temperature in air protected from drafts, for 2 hours, after which the tensile strength shall be determined. In calculations of the tensile strength, measurements for cross sectional area shall be taken after immersion and drying of the specimens.

4.7.3 Oxygen bomb aging test. Three dumbbell rubber test specimens of size specified in 4.7.1 shall be subjected to the oxygen bomb aging test in accordance with method 7111 of FED-STD-601 and then tested for tensile strength. The aging period shall be for 46 ± 1/4 hours.

4.7.4 Light aging. Three dumbbell rubber test specimens of the size specified in 4.7.1 shall be subjected to light aging in accordance with method 7311 of FED-STD-601 and then tested for tensile strength. The aging method, however, should be modified as follows:

Exposure for 25 hours shall be made at 10 percent elongation, using "Ever-ready Sunshine" carbons or equal or other method satisfactory to the command or agency concerned. Total dosage in decomposition of oxalic acid by uranyl oxalate actinometer shall be a minimum of 0.5 by 10^4 milligrams (mg) per square decimeter.

Downloaded from http://www.everyspec.com

4.7.5 Ultimate elongation. Ultimate elongation shall be determined in accordance with ASTM D 412, using die C for preparing dumbbell specimens. Specimen thickness shall be as specified in 3.4.

4.7.6 Permanent set. Permanent set shall be determined in accordance with ASTM D 412. The specimens shall be elongated 100 percent in the test. Specimen thickness shall be as specified in 3.4.

4.7.7 Hardness. Hardness shall be determined in accordance with ASTM D 2240, shore A durometer.

4.7.8 Abrasion resistance. The abrasion resistance shall be in accordance with ASTM D 1242 method A (loose abrasive) except that thickness loss in mils will be reported in lieu of volume loss.

4.7.9 Flexibility. The material shall be tested as described in method 3111 of FED-STD-501. The mandrel diameter shall be 0.75 inch normal.

4.7.10 Voltage. The voltage test shall be made on the entire area of the material offered for test except for the peripheral area within 2-inch of the edge. The material shall be tested between electrodes consisting of rectangular metal sheets, having smoothly rounded edges and corners, and of any convenient length. The width shall be such that arcing around the edges of the material will not occur. The tests shall be made progressively until the entire test area of the material has been covered, 15,000 volts a.c. being applied for 1 minute at each position of the electrodes. The contact pressure of the electrodes shall be adequate to obtain good electrode contact with the test specimen.

4.7.11 Dielectric strength. Specimens shall be tested to failure in air between 2-inch disk electrodes with edges rounded to a radius of 1/4 inch. The voltage shall be applied at the rate specified in 4.7.11.1.4. The test specimen shall be a minimum of 1 square foot in area and there shall be a minimum of five measurements made with no two measurements being less than 4 inches apart.

4.7.11.1 Test voltage.

4.7.11.1.1 Source. The test voltage shall be obtained from test equipment, no part of which has a capacity of less than 1/2 kilovoltampere (kVA) per square foot of electrode surface. In no case shall the rating of any part of the test apparatus be less than 5 kVA. The frequency of the test voltage shall not exceed 65 hertz (Hz).

4.7.11.1.2 Regulation. The method of regulating the test voltage shall be one which does not distort the waveform of the test voltage from a sine wave. Acceptable methods include:

(a) Field regulation of the alternator supplying the transformer.
(b) Induction type regulator.
(c) Variable-ratio-transformer type of regulator.
(d) Potentiometer type of rheostatic control where the current in the portion of the potentiometer resistance in parallel with the primary transformer is at least five times the exciting current of the transformer.

4.7.11.1.3 Measurement. The test voltage shall be measured by one of the following methods:

(a) A properly calibrated electrostatic voltmeter connected directly across the specimen under test.
(b) Any properly calibrated commercial type of alternating current voltmeter connected to the low-tension side of the transformer in conjunction with the ratio of transformation of the transformer, provided that the ratio is definitely known for all test conditions.

4.7.11.1.4 Application. The potential shall be applied at a low value and gradually and steadily raised at the rate of 800 to 1,000 volts per second until the prescribed testing voltage is reached.

4.7.12 Fire resistance. The material shall be tested in accordance with MIL-STD-1623, except that three specimens shall be tested and averaged.

Downloaded from http://www.everyspec.com

4.7.13 Dimensional stability. Stability shall be determined in accordance with ASTM D1204.

4.8 Inspection of preparation for delivery. The packaging, packing, and marking shall be inspected for compliance with section 5 of this document.

5. PREPARATION FOR DELIVERY

(The preparation for delivery requirements specified herein apply only for direct Government procurements.)

5.1 Packaging. Packaging shall be level A or C as specified (see 6.2.1).

5.1.1 Level A. The material (see 3.5) shall be tightly rolled, and securely tied or strapped to prevent unrolling. Rolls shall then be wrapped with not less than two thicknesses of 60-pound minimum basis weight waterproof kraft paper, secured with not less than 2-inch wide, 60-pound basis weight waterproof gummed tape.

5.1.2 Level C. Packaging of material (see 3.5) shall be sufficient to afford adequate protection against deterioration and physical damage during shipment from the supply source to the using activity and until early use. The suppliers normal retail or wholesale packaging methods may be utilized when such meet the requirements of this level.

5.2 Packing. Packing shall be level A, B, or C as specified (see 6.2.1).

5.2.1 Levels A and B. Each roll packaged as specified (see 6.2.1), shall be inserted into a bias-sewn tubing or bag constructed of class 2 or 3 burlap, cloth, jute (or kenaf), or cottom osnaburg cloth in accordance with MIL-T-40625. Each end shall be closed with two wire ties. The first tie shall be applied as close as possible to the tubing or bag at the base which is formed by gathering the material evenly together. The second wire tie shall be applied approximately 1 inch from the first tie with the twisted ends positioned opposite to those of the first wire tie. Wire ties shall be not less than 6 inches long, 0.072 inch diameter, soft iron or steel, with a formed eye at each end, approximately 1/2 inch in diameter.

5.2.2 Level C. Packing shall be accomplished in a manner which will insure acceptance by common carrier and will afford protection against physical or mechanical damage during direct shipment from the supply source to the using activity for early use. The shipping containers or method of packing shall conform to the Uniform Freight or National Motor Freight Classification Rules or other carrier regulations as applicable to the mode of transportation.

5.3 Marking. In addition to any special marking required in the contract or order (see 6.2.1), interior packages and exterior shipping containers shall be marked in accordance with MIL-STD-129 and in addition shall be marked with the month and year manufactured and the specification number.

6. NOTES

6.1 Intended use. The mat and sheet flooring is intended to protect personnel against accidental electrical exposure to ground not exceeding 3000 volts. The sheet material type I, is intended for use as a permanent installation, i.e., cemented over the entire exposed floor. The runner matting, type II, is designed for use as a portable mat and normally used in single strips in front of electrical work benches, switchboards, or panels.

6.2 Ordering data. Procurement documents should specify:

6.2.1 Procurement requirements.

(a) Title, number, and date of this specification.
(b) Type required (see 1.2).
(c) When a first article is required for inspection and approval (see 3.1, 4.3 and 6.3).
(d) Width and length of roll required (see 3.5).
(e) Color required (see 3.6).
(f) Conditioning of specimens, if other than specified (see 4.7).
(g) Level of packaging and level of packing (see 5.1 and 5.2).
(h) Special marking, if required (see 5.3).

Downloaded from http://www.everyspec.com

6.2.2 Contract data requirements. When this specification is used in a procurement invoking the data requirement clause of the Armed Services Procurement Regulations (ASPR) paragraph 7-104.9(n) and which incorporates a DD Form 1423 Contract Data Requirements List (CDRL), the data requirements identified below will be developed as specified in the cited Data Item Description (DID) and delivered in accordance with such CDRL. When the ASPR provisions are not invoked, the data specified below shall be delivered in accordance with the contract requirements.

Specification paragraph	Data requirements	Service	Applicable DID	Options
4.3.1	First article test report	SH	UDI-T-23450	-------

(Copies of DID's required by the contractor in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.)

6.3 First article inspection.

6.3.1 Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection as to those bidders offering a product which has been previously procured or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending procurement.

6.3.2 When a first article is required, it shall be tested and approved under the appropriate provisions of 7-104.55 of the Armed Services Procurement Regulation. The first article should be a first production item. The first article should consist of a roll of flooring material selected at random from the first production lot. The contracting officer should include specific instructions in all procurement instruments regarding arrangements for examinations, test, and approval of the first article.

6.4 Management control system document. The following management control system document should be included on DD Form 1660:

(a) MIL-C-45662 (see 4.3.2)

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

Other interest:
Review - AS
User - YD, OS, MC, CG

Preparing activity:
Navy - SH
(Project 7220-N202)

Downloaded from http://www.everyspec.com

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

OMB Approval
No. 22-R255

INSTRUCTIONS: The purpose of this form is to solicit beneficial comments which will help achieve procurement of suitable products at reasonable cost and minimum delay, or will otherwise enhance use of the document. DoD contractors, government activities, or manufacturers/ vendors who are prospective suppliers of the product are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. 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. 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.

DOCUMENT IDENTIFIER AND TITLE

NAME OF ORGANIZATION AND ADDRESS

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?
   A. GIVE PARAGRAPH NUMBER AND WORDING.

   B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID

3. IS THE DOCUMENT RESTRICTIVE?

   ☐ YES ☐ NO *(If "Yes", in what way?)*

4. REMARKS

SUBMITTED BY *(Printed or typed name and address - Optional)*

TELEPHONE NO.

DATE

DD FORM 1 JAN 72 1426

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED

S/N 0102-014-1802

☆ U.S. GOVERNMENT PRINTING OFFICE: 1972—714-863/3404 2-1

Downloaded from http://www.everyspec.com

FOLD

COMMANDER
NAVAL SHIP ENGINEERING CENTER
CENTER BUILDING - SEC 6124
PRINCE GEORGES CENTER
HYATTSVILLE, MARYLAND 20782

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

POSTAGE AND FEES PAID

DEPARTMENT OF NAVY

DOD 316

U.S.MAIL

COMMANDER
NAVAL SHIP ENGINEERING CENTER
CENTER BUILDING - SEC 6124
PRINCE GEORGES CENTER
HYATTSVILLE, MARYLAND 20782

FOLD