

INCH-POUND

MIL-A-41829D

10 August 1989

SUPERSEDING

MIL-A-41829C

26 March 1981

MILITARY SPECIFICATION

APRON, UTILITY, IMPERMEABLE, RUBBER COATED FABRIC (GENERAL PURPOSE)

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

1. SCOPE

1.1 Scope. This specification covers one type and size of impermeable utility bib type apron made of a synthetic rubber coated fabric.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks 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).

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8415

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

MIL-A-41829D

SPECIFICATIONS

FEDERAL

- A-A-203 - Paper, Kraft, Untreated
- V-T-285 - Thread, Polyester
- PPP-B-636 - Boxes, Shipping, Fiberboard
- PPP-T-45 - Tape, Gummed, Paper, Reinforced and Plain, for Sealing and Securing

MILITARY

- MIL-G-16491 - Grommet, Metallic
- MIL-L-35078 - Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage; General Specification For
- MIL-T-43566 - Tape, Textile, Cotton or Polyester, General Purpose, Natural or in Colors

STANDARDS

FEDERAL

- FED-STD-191 - Textile Test Methods
- FED-STD-751 - Stitches, Seams, and Stitchings

MILITARY

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
- MIL-STD-129 - Marking for Shipment and Storage
- MIL-STD-147 - Palletized Unit Loads
- MIL-STD-731 - Quality of Wood Members for Containers and Pallets

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Naval Publications and Forms Center, (ATTN: NPODS), 5801 Tabor Avenue, Philadelphia, PA 19120-5099.)

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

MIL-A-41829D

DRAWINGS

U.S. ARMY NATICK RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER

8-2-92 - Apron, Utility, Impermeable, Rubber Coated Fabric
(General Purpose)

(Copies of drawings are available from the U.S. Army Natick Research, Development, and Engineering Center, ATTN: STRNC-EMSS, Natick, MA 01760-5014.)

2.2 Non-Government publications. The following document forms 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 MATERIAL (ASTM)

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 organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

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 Materials and component. It is encouraged that recycled material be used when practical as long as it meets the requirements of this specification.

3.1.1 Base cloth. The base cloth shall be a plain weave, undyed, spun polyester cloth. The cloth shall weigh 2.5 to 3.1 ounces per square yard and shall have 52 yarns per inch in the warp direction and 30 yarns per inch in the filling direction, when tested as specified in 4.2.1.1.

3.1.2 Coating compound. The coating compound shall be chloroprene rubber or polyisobutylene rubber suitably compounded, plasticized with phthalate or phosphate ester plasticizers, and pigmented black. Natural rubber, synthetic rubber other than chloroprene rubber, or reclaimed rubber shall not be used.

MIL-A-41829D

3.1.3 Coated cloth. The coating compound shall be applied to both sides of the cloth. Weight of the coating shall be 6.5 to 7.5 ounces per square yard on the outside and 4.0 to 4.5 ounces per square yard on the underside. The coated cloth shall be dusted with the powder specified in 3.1.4. The coated cloth shall be fully vulcanized and when tested as specified in 4.2.1.1 shall conform to the requirements of table I.

TABLE I. Coated fabric requirements

Characteristics	Requirements	
	Minimum	Maximum
Overall weight, oz./sq. yd.	13.0	15.1
Breaking strength, pounds		
Initial:		
Warp	155	--
Filling	130	--
After acid resistance test:		
Warp	110	--
Filling	100	--
Adhesion of coating, lbs/2-inch width	6.0	--
Resistance to acid	<u>1/</u>	--
Resistance to aging	<u>2/</u>	--
Low temperature flexibility	<u>3/</u>	--
Blocking, scale rating	--	No. 1
Hydrostatic resistance:		
Initial	<u>4/</u>	--
After abrasion	<u>5/</u>	--

1/ There shall be no appreciable stiffening and brittleness or softness and tackiness and there shall be no sign of acid penetration. Appreciable means a change that is immediately noticeable in comparing the tested specimen with the untested coated cloth.

2/ The specimens shall show no signs of becoming stiff and brittle or soft and tacky.

MIL-A-41829D

- 3/ The coating shall show no cracking, flaking, or separation from the cloth.
- 4/ The 4-1/2 inch diameter test area shall show no leakage. Leakage is defined as the appearance of water at three different places in the 4-1/2 inch diameter test area.
- 5/ Extent of leakage shall be not more than 5 milliliters of water.

3.1.4 Dusting powder. The dusting powder for application to the coated cloth shall be whiting, talc, or other finely divided non-toxic mineral material which does not support mildew growth.

3.1.5 Tape, cotton. The cotton tape shall be type I, class 1a, 3/4 inch wide conforming to MIL-T-43566 except that the color shall be Olive Drab 7.

3.1.6 Thread. The thread shall be polyester thread type I or II, class 1, size F conforming to V-T-285. The thread shall be shade Olive Drab S-1, Cable No. 66022.

3.1.7 Grommets. The grommets shall be type II, class 3, size 1 conforming to MIL-G-16491.

3.2 Construction. The apron shall be made from a single thickness of the coated cloth specified in 3.1.3 and shall be constructed in accordance with Drawing 8-2-92. The side of the coated cloth with the heaviest application of coating compound shall be on the outside. The ends of the waist and neck straps shall be either tipped or impregnated with resin to prevent raveling. The tipped or impregnated end shall be at least 1/4 inch in length and shall contain sufficient resin to prevent raveling when twisted between the fingers. The neck and waist straps shall be securely attached to the apron as shown on Drawing 8-2-92.

3.2.1 Stitches and stitching. Stitches and stitching shall conform to stitch type 301 of FED-STD-751 and shall be made using not less than 6 nor more than 8 stitches per inch. Ends of all seams and stitches, when not turned under in a hem or caught in other seams or stitching, shall be backstitched not less than 1/2 inch. Thread tension shall be maintained so there will be no loose stitching resulting in a loose bobbin or top thread and no excessively tight stitching resulting in puckering of the materials sewn.

3.2.1.1 Repairs of type 301 stitching. Repairs of type 301 stitching shall be as follows:

- a. When thread breaks or bobbin run-outs occur during sewing, the stitching shall be repaired by restarting the stitching a minimum of 1/2 inch back of the end of the stitching.

MIL-A-41829D

b. Thread breaks or two or more consecutive skipped or runoff stitches noted during inspection of the item (in-process or end item) shall be repaired by overstitching. The stitching shall start a minimum of 1/2 inch back of the defective area, continue over the defective area, and continue a minimum of 1/2 inch beyond the defective area onto the existing stitching. Loose or tight stitching shall be repaired by removing the defective stitching without damaging the material and restitching in the required manner. 1/

1/ When making the above repairs, the ends of stitching are not required to be backstitched.

3.3 Dimensions. The finished apron shall conform to the dimensions and tolerance shown in Drawing 8-2-92.

3.4 Marking. The back of each apron shall be stamped with the following information using 1/4 inch minimum height indelible white characters:

Item Description
Contract Number
National Stock Number (NSN)
Date of Manufacture
Suppliers Name (Not Trademark)

3.5 Replacement of defective components. During the spreading, cutting, and manufacturing process, components having material defects or damages that are classified as defects in 4.2.2 and 4.2.3 shall be removed from production and replaced with non-defective and properly matched components.

3.6 Workmanship. The finished aprons shall conform to the quality of product established by this specification. The occurrence of defects shall not exceed the acceptable quality levels.

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 this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

MIL-A-41829D

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 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.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to ensure compliance with all dimensional requirements.

4.1.3 Certificate of compliance. When certificates of compliance are submitted, the Government reserves the right to inspect such items to determine validity of the certification.

4.2 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.2.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document.

4.2.1.1 Component and material certification. A certificate of compliance may be acceptable as evidence that the characteristics listed below conform to the specified requirements.

Characteristic	Requirement paragraph	Test method
Base cloth:		
Fiber type	3.1.1	---
Weave	3.1.1	Visual
Weight	3.1.1	5041 of FED-STD-191
Yarns per inch	3.1.1	5050 of FED-STD-191
Coating compound:		
Material identification	3.1.2	---
Application and weight	3.1.3	---
Dusting powder composition	3.1.4	---

MIL-A-41829D

4.2.1.2 Coated cloth testing. The coated cloth shall be tested for the characteristics listed in table III. The methods of testing specified in FED-STD-191 wherever applicable and as listed in table III shall be followed. The sample unit shall be 3 yards full width. The sample size shall be as specified in table II. The lot shall be rejected if one or more sample units fail to meet any requirement specified.

TABLE II. Sample size

Lot size (yards)	Sample size (sample units)
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

TABLE III. Coated cloth tests

Component	Characteristic	Requirement para.	Test method
	Overall weight	Table I	5041
	Breaking strength		
	Initial:		
	Warp	Table I	5100
	Filling	Table I	5100
	After acid resistance test:		
	Warp	Table I	5100 1/
	Filling	Table I	5100 1/
	Coating adhesion	Table I	5970
	Resistance to acid	Table I	4.3.1
	Resistance to aging	Table I	4.3.2
	Low temperature flexibility	Table I	4.3.3
	Blocking	Table I	5872 2/
	Hydrostatic resistance:		
	Initial	Table I	4.3.4
	After abrasion	Table I	4.3.5

1/ The specimens shall be cut from an area of the 12 by 24 inch specimen that was exposed to sulphuric acid during the acid resistance test (see 4.3.1).

2/ Except that one determination shall be made per sample unit.

MIL-A-41829D

4.2.2 End item visual examination. The end items shall be examined for the defects listed in table IV. The lot size shall be expressed in units of aprons. The sample unit shall be one completely fabricated apron. The inspection level shall be II (see 6.3).

TABLE IV. End item visual defects

Examine	Defect	Classification	
		Major	Minor
Cleanliness	Spot, stain or foreign matter seriously affecting appearance.		201
Design	Not in accordance with drawing.	101	
Stitching	Not type specified.		202
	Needle chews.		203
	Tight tension (stitches break when normal strain is applied to the seam or stitching), or loose tension which results in a loosely joined seam.		204
	Repair of open seam not as specified.		205
	End of stitching when not caught in another seam or stitching backstitched less than 1/2 inch.		206
	Number of stitches per inch are more or less than specified.		207
	Any open seam.		208
	NOTE: A seam shall be classified as open when one or more stitches joining a seam are broken or when two or more consecutive skipped or runoff stitches occur.		
Coated cloth	Hole, cut, abraded area, tear or rip through material or exposing base fabric.	102	
	Peeling, cracking, sticking or flaking of coating compound.	103	
	Area of excessive coating, e.g., solid runs, ridges or lumps.		209
	Any blister.	104	
	Pit or abraded area not through the material or exposing base cloth.		210
	Embedded foreign matter which upon removal results in a hole or exposed base cloth.	105	
	Embedded foreign matter which upon removal does not expose base cloth.		211
Tackiness.	106		

MIL-A-41829D

TABLE IV. End item visual defects (continued)

Examine	Defect	Classification	
		Major	Minor
Coated cloth (cont'd)	Area of no coating.	107	
	Color not black.		212
	Color not uniform		213
	Heavily coated side of cloth on inside of apron.		214
	Evidence that dusting powder is omitted.		215
Construction and workmanship	Grommet, neck strap, waist strap or reinforcing patch missing.	108	
	Neck strap or waist strap not securely tied to apron.		216
	Reinforcing patch misplaced to a degree that serviceability is seriously affected.	109	
	Reinforcing patch misplaced affecting serviceability but not seriously.		217
	Grommet improperly clinched to a degree seriously impairing intended use.	110	
	Grommet improperly clinched but can adequately serve its intended purpose.		218
	Repair (except repair of open seam) or patch.	111	
	One waist or neck strap end not tipped or impregnated.		219
	More than one waist or neck strap end not tipped or impregnated.	112	
	Tipped or impregnated end less than 1/4 inch.		220
	End ravel when twisted between fingers.		221
Cut, hole or tear in waist or neck straps.		222	
Marking	Missing, incorrect, incomplete, illegible or not specified size, not white.		223

4.2.3 End item dimensional examination. The end items shall be examined for conformance to the dimensions specified on the Drawing 8-2-92. Only those dimensions that can be evaluated without damaging or disassembling the end items shall be examined. Any dimension not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in units of aprons. The sample unit shall be one completely fabricated apron. The inspection level shall be S-3 (see 6.3).

MIL-A-41829D

4.2.4 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 (see 6.3).

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application
Materials	Any component missing, damaged, or not as specified
Workmanship	Inadequate application of components, such as: incomplete sealing or closure of flap, improper taping, loose strapping, or inadequate stapling Bulged or distorted container Apron not individually rolled on chipboard tube Incompletely wrapped roll
Content	Number per container is more or less than required

4.2.5 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged. The inspection level shall be S-1 (see 6.3).

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirement
Palletization	Pallet pattern not as specified Interlocking of loads not as specified Load not bonded as specified
Weight	Exceeds maximum load limits
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application

MIL-A-41829D

4.3 Methods of inspection.

4.3.1 Acid resistance test. Two 12 by 24 inch specimens of the coated cloth shall be tested from each sample unit. One specimen shall be cut with the length dimension in the warp direction and the other specimen shall be cut with the length dimension in the filling direction. Each specimen shall be supported to form a pocket approximately 1 inch deep, 8 inches wide and 20 inches long with the heavier coated side up to contact the acid. The pocket shall be filled with diluted sulphuric acid (specific gravity 1.28 to 1.30) and remain filled with the acid for a period of 24 hours. At the end of this period, the specimens shall be thoroughly washed in cold water and dried at room temperature for a minimum of 2 hours. The specimens shall be examined for appreciable stiffening, brittleness, tackiness, softness and acid penetration. The presence of any of the above conditions shall be reported as a test failure.

4.3.2 Resistance to aging test. One specimen from each sample unit shall be tested. The aging test shall be conducted in accordance with Method 5852 of FED-STD-191 except that one specimen shall be tested and the time of exposure shall be 10 days. The specimen shall be examined for stiffness, brittleness, softness and tackiness. The presence of any of the above conditions shall be reported as a test failure.

4.3.3 Low temperature flexibility test. Two 1 by 4 inch specimens shall be tested from each sample unit. One specimen shall be cut with the long dimensions warpwise and the other specimen shall be cut with the long dimension fillingwise. The specimens shall be exposed for 4 hours at minus $30 \pm 2^{\circ}\text{F}$. The temperature shall be recorded at the lowest point in the chamber. Each specimen, shall be bent sharply, with the heavier coated side out, over a 1/8 inch diameter mandrel so that the back of the specimen touches within 1/8 inch distance directly behind the mandrel. The specimen shall be examined visually and any evidence of cracking, flaking, or separation of coating from the cloth shall be reported as a test failure.

4.3.4 Hydrostatic resistance (initial) test. Method 5516 of FED-STD-191 shall be used except that the hydrostatic head shall be raised to a height of 20 inches for a period of 1 hour and then examined for leakage.

4.3.5 Hydrostatic resistance (after abrasion) test. Method 5516 of FED-STD-191 shall be used except an area approximately 2 inches by 8 inches extending along the center line of the specimen shall be abraded by means of a 2 inch square of 1/0 garnet paper. The garnet paper shall be uniformly loaded to 8.0 ± 0.1 ounces. The specimen shall be laid on a smooth level surface with the heavily coated side up and abraded as described by moving the loaded garnet paper five times in each direction. The specimen shall then be turned over and abraded on the other side in such a manner that the center 2-inch square section is abraded on the other side (i.e. the specimen is abraded in a north-south direction on one side and an east-west direction on

MIL-A-41829D

the other side). The abraded specimen shall be tested with the abraded area in the center of the 4-1/2 inch diameter test area. The hydrostatic head shall be raised to a height of 20 inches for a period of 1 hour. A leakage of more than 5 milliliters of water by the end of the test period shall be reported as a test failure.

5. PACKAGING

5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A preservation. Each apron shall be spread flat, underside up, with the neck and waist straps laid on top. The apron shall be unit packed by neatly rolling it (underside in) open-width, starting from the bib end, on a convolute or spiral-wound chipboard tube having a wall thickness of 0.125 inch and an inside diameter of 1 inch. The ends of the tube shall be flush with the width of the rolled apron. Each rolled unit pack shall be completely wrapped in 30-pound minimum basis weight kraft paper conforming to A-A-203. The wrapped unit pack shall be secured with 2 inch minimum width gummed paper tape conforming to type III, grade B of PPP-T-45. Each unit pack shall measure approximately 35 inches in length and 2-1/8 inches in diameter.

5.1.2 Commercial preservation. Aprons shall be preserved in accordance with ASTM D 3951.

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

5.2.1 Level A packing. Thirty-six aprons, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. Inside dimensions of each shipping container shall approximate 35-1/4 inches in length, 13 inches in width, and 12-3/4 inches in depth. Approximate dimensions are furnished as a guide only. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636. Level A unit packs shall be packed flat, one in length, six in width, six in depth within a shipping container. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.2 Level B packing. Thirty-six aprons, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. Inside dimensions of each shipping container shall approximate 35-1/4 inches in length, 13 inches in width, and 12-3/4 inches in depth. Approximate dimensions are furnished as a guide only. Level A unit packs shall be packed flat, one in length, six in width and six in depth. Each shipping container shall be closed in accordance with method II as specified in the appendix of PPP-B-636.

MIL-A-41829D

5.2.2.1 Weather-resistant fiberboard containers. When specified (see 6.2), the shipping container shall be a grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III as specified in the appendix of PPP-B-636.

5.2.3 Commercial packing. Aprons preserved as specified in 5.1 shall be packed in accordance with ASTM D 3951.

5.3 Palletization. When specified (see 6.2), aprons, packed as specified in 5.2 shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet types shall be type I (4-way entry), type IV, or type V in accordance with MIL-STD-147. Pallets shall be fabricated from wood groups I, II, III, or IV of MIL-STD-731. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L or film bonding means O or P. Pallet pattern shall be number 2 in accordance with the appendix of MIL-STD-147.

5.4 Marking. In addition to any special marking required by the contract or purchase order, unit packs, shipping containers and palletized unit loads shall be marked in accordance with MIL-STD-129 and ASTM D 3951, as applicable.

6. NOTES

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

6.1 Intended use. The apron is intended for use by personnel engaged in heavy duty occupations such as equipment maintenance and material handling, battery handling, abattoir worker, butcher, and depot maintenance.

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. Levels of preservation and packing (see 5.1 and 5.2).
- d. Type and class of unit load required (see 5.2.1).
- e. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
- f. When palletization is required (see 5.3).
- g. Acceptance criteria required (see 6.3).

6.3 Acceptance criteria. The acceptance criteria below is recommended for use. The acceptance criteria as specified in the contract or purchase order shall be binding. Unless otherwise specified, the following acceptance criteria are in accordance with MIL-STD-105.

MIL-A-41829D

6.3.1 For end item visual examination. An acceptable quality level (AQL), expressed in terms of defects per hundred units, of 1.5 for major defects and 6.5 for total (major and minor combined) defects is recommended.

6.3.2 For end item dimensional examination. An AQL, expressed in terms of defects per hundred units, of 4.0 is recommended.

6.3.3 For packaging examination. An AQL, expressed in terms of defects per hundred units, of 2.5 is recommended.

6.3.4 For palletization examination. An AQL, expressed in terms of defects per hundred units, of 6.5 is recommended.

6.4 Subject term (key word) listing.

Garment, rubber
Shield, protecting

6.5 Changes 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 - GL
Navy - NU
Air Force - 99

Preparing activity:
Army - GL

(Project 8415-0689)

Review activities:
Army - MD
Air Force - 82
DLA - CT

User activities:
Navy - MC, YD
Air Force - 11, 45

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions - Reverse Side)

1. DOCUMENT NUMBER

MIL-A-41829D

2. DOCUMENT TITLE

Apron, Utility, Impermeable, Rubber Coated
Fabric (General Purpose)

3a. NAME OF SUBMITTING ORGANIZATION

4. TYPE OF ORGANIZATION *(Mark one)* VENDOR USER MANUFACTURER OTHER *(Specify):* _____b. ADDRESS *(Street, City, State, ZIP Code)*

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI) - Optional*b. WORK TELEPHONE NUMBER *(Include Area Code) - Optional*c. MAILING ADDRESS *(Street, City, State, ZIP Code) - Optional*

8. DATE OF SUBMISSION (YYMMDD)

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.

(Fold along this line)

(Fold along this line)

DEPARTMENT OF THE ARMY

U.S. ARMY NATICK RESEARCH, DEVELOPMENT
and ENGINEERING CENTER
ATTN: STRNC-ES
Natick, MA 01760-5014



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 12062 WASHINGTON D. C.
POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE ARMY

Commander
U.S. Army Natick Research, Development
and Engineering Center
ATTN: STRNC-ES
Natick, MA 01760-5014

