

INCH-POUND
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A-A-55063A  
13 March 2012  
SUPERSEDING  
A-A-55063  
13 August 1992

## COMMERCIAL ITEM DESCRIPTION

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

The General Services Administration has authorized the use of this commercial item description in preference to MIL-A-41829.

1. **SCOPE.** This Commercial Item Description covers the requirements for an impermeable utility bib type apron in a synthetic rubber coated fabric to be used by personnel engaged in heavy duty occupations such as equipment maintenance, material handling, abattoir worker, butcher, depot maintenance, etc.

2. **CLASSIFICATION.** The apron will be available in one color, type and size.

3. **SALIENT CHARACTERISTICS.**

3.1 **Description.** The apron shall be a bib type, made of a single thickness of coated cloth. The side of the coated cloth with the heaviest application of coating compound shall be on the front side. The neck and waist straps shall be securely attached to the apron through grommets applied with reinforcement patches at upper corners of the bib and corners at waist (see Figure 1). The ends of the tape/webbing for waist and neck straps shall be either tipped or impregnated with resin 1/4 inch (minimum) in length and shall contain sufficient resin to prevent raveling. All raw edges of the apron shall be folded over 3/8 - inch ( $\pm$  1/16) and topstitched 1/4 - inch from edge. Corners shall be backstitched 3/4 - inch ( $\pm$  1/8). The apron shall meet the finished dimensions requirements of Table IV and the color shall be black unless otherwise specified in the contract or solicitation (see 7.6).

Comments, suggestions, or questions on this document should be addressed to: Attn: DLA Troop Support Standardization Team, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of this address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database at <a href="https://assist.daps.dla.mil/">https://assist.daps.dla.mil/</a> .
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3.1.1 Figure. Figure 1 is furnished for informational purposes only. To the extent of any inconsistencies between the written document and the figure, the written document shall govern.

### 3.2 Materials.

3.2.1 Base cloth. The base cloth shall have the physical properties provided in Table I when tested in accordance with the methods provided therein.

TABLE I. Material requirements

Characteristic	Requirement	Test Method
Fabric Weight, (oz/sq.yd)	2.5 - 3.1	ASTM D 3776 Option C
Fiber Content	100% Polyester	AATCC 20
Yarn	Spun Staple	Visual
Fabric Count,( inch) minimum		
Warp	52	ASTM D 3775
Fill	30	

3.2.1.1 Coated cloth. The coating compound (see 3.2.1.1.1) shall be applied to both sides of the base cloth. The coated cloth shall be dusted with powder (see 3.2.1.2). The coated cloth shall be fully vulcanized and shall meet the performance requirements of Table II when tested by the methods specified (see 7.4).

TABLE II. Coated cloth performance requirements

Characteristic	Requirement	Test Method
Overall weight (oz/sq yd)	13.0 - 15.1	ASTM D3776 Option C
Breaking Strength, (minimum)		
Warp	155	ASTM D 5034
Filling	130	ASTM D 5034
Coating Adhesion , lbs/ 2-inch width (minimum)	6.0	ASTM D 751 <u>1/</u>
Blocking (maximum)	No. 1	ASTM D 751 <u>2/</u>
Hydrostatic resistance		
Initial	<u>3/</u>	ASTM D 751 <u>4/</u>
After abrasion	<u>5/</u>	ASTM D 751 <u>6/</u>

1/ A pulling clamp speed of 5 mm/sec (12 in./ min) shall be used. The adhesion shall be the average of the five (5) highest peaks of force – Three (3) specimens shall be tested. cyanoacrylate adhesive shall be used.

2/ The test shall be performed at a temperature of 180 ( $\pm$  2°F) for 30 minutes. Evaluate the resistance of the specimen to blocking by the scale given below:

1—*No Blocking*. Cloth surfaces are free and separate without any evidence of cohesion or adhesion.

2—*Trace Blocking*. Cloth surfaces show slight cohesion or adhesion.

3—*Slight Blocking*. Cloth surfaces must be lightly peeled to separate.

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4—*Blocking*. Cloth surfaces separate with difficulty or coating is removed during separation.

3/ 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.

4/ The hydrostatic head shall be raised to a height of 20 inches for a period of 1 hour and then examined for leakage.

5/ Extent of leakage shall be not more than 5 milliliters of water.

6/ An area approximately 2 - inches by 8 - inches extended 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 ( $\pm$  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 be turned over and 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 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.

3.2.1.1.1 Coating compound. The coating compound shall be chloroprene rubber or polyisobutylene rubber suitably compounded plasticized with phthalate or phosphate ester plasticizers, and pigmented black when tested as specified in ASTM D 297. Natural rubber, synthetic rubber other than chloroprene rubber, or reclaimed rubber shall not be used.

3.2.1.2 Dusting powder. The dusting powder for application to the coated cloth shall be a whiting, finely divided non-toxic mineral material of ground potassium aluminum silicate (see 7.5).

3.2.2 Tape/webbing (nylon or polyester). The tape/webbing shall be 3/4 (-1/32, + 1/16) inch wide, and sufficiently lightweight and flexible for tying when the apron is donned. The fiber content shall be nylon or polyester when tested in accordance with AATCC 20. The tape/webbing shall meet the requirements of Table III when tested in accordance with the methods provided therein. The apron shall have two (2) tapes/webbings for the waist cut to 24 ( $\pm$  1/2) inches in length, and one (1) tape/webbing cut to 30 ( $\pm$  1/2) inches for the neck strap.

TABLE III. Tape/webbing performance requirements

Characteristic	Requirement	Test Method
Water Repellency		
Dynamic absorption, percent, initial only (maximum)	40	AATCC - 70
pH	5.5 - 8.5	AATCC - 81
Labile sulfur	None present	<u>1/</u>

1/ The presence of labile sulfur test method shall be as follows unless otherwise specified in the contract or solicitation (see 7.6): In the determination of presence of labile sulfur in textile materials with lead acetate, two 1.50 ( $\pm$  0.01) gram samples from each material submitted for evaluation shall be tested. Each of the two samples shall be cut into very small pieces and placed into separate test tubes. The samples shall be submersed in a stannous chloride solution that

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contains 100 grams of stannous chloride crystals ACS in 100 milliliters of hydrochloric acid ACS (35 percent concentration) and 50 milliliters of distilled water. A filter paper wet out with a 5.0 percent lead acetate solution shall be placed over the top of the test tube. The lead acetate solution contains 5.0 grams of lead acetate CP reagent grade and enough distilled water to make up a 100 milliliter solution; if the solution is not clear add a few drops (one at a time) of glacial acetic acid until the solution is clear. The test tube containing the textile sample, stannous chloride and wet filter paper shall be heated over a low flame until the solution is boiling. The solution should not be heated for more than 15 seconds. A brown to black stain on the filter paper should be evaluated as follows:

- Free - The filter paper shows no discoloration or staining of any kind.
- Slight - The filter paper shows a light tan to light brown discoloration stain.
- Moderate - The filter paper shows a dark brown discoloration stain.
- Severe - The filter paper shows a black color stain.

3.2.2.1 Color (tape/webbing only). The color of the tape/webbing for the neck and waist straps shall approximate the color of the coated cloth after dusting or, as an alternate, green in accordance with FED-STD 595/34094 (Camouflage Green 483) unless otherwise specified in the contract or solicitation.

3.2.3 Thread. The thread shall conform to MIL-DTL-32072 Type I twisted soft multiple cord or Type II, twisted bonded multiple cord, Class 1, Subclass B, Tex Size 45. Color shall approximate apron material. Any lubricant or finish shall not stain the end item.

3.2.4 Grommets. The apron shall have four (4) grommets, which shall be located as per Figure 1. The grommets shall be in accordance with NASM16491, Type II, Class 3, Size 8-10 millimeters (3/8-inch in diameter nominal).

3.2.4.1 Reinforcement patches The apron shall have four (4) reinforcement patches located on the inside at the bib and waist corners where the grommets are positioned (see Figure 1). The material for the patches shall be rubber coated spun polyester cloth in accordance with 3.2.1.1.

3.2.5 Labels. The back side 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 Manufacturer  
 Supplier's Name

3.2.5.1 Barcode tag. Each apron will be individually bar-coded with a paper tag for personal clothing items. The paper tag shall be standard bleached sulfate having a basis weight of 100 pounds. The paper used for the tags will have a smooth finish to accept thermal transfer and direct printing. The tags shall have a hole and will be attached to the item and shall be clearly

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legible and readable by a scanner. The barcode element will be a 13 digit national stock number (NSN) along with respective Universal Product Code (UPC) bar code. The bar code type shall be a medium to high code density and shall be located so that it is completely visible on the item when it is folded and/or packaged as specified, and so that it causes no damage to the item.

3.3 Patterns. Commercial patterns shall be used. They shall conform to the design requirements of 3.1.

3.4 Construction. Construction of garment shall be according to good commercial practices, and conform to the design in 3.1 and the dimensions specified in 3.5.

3.5 Dimensions The dimensions shall be as specified in Table IV and Figure 1.

TABLE IV. Dimensions (inches)

Location or designated component	Dimension	Tolerance
A) Bottom Width, edge to edge	34-5/8	± 3/4
B) Side Length, waist to bottom edge	36-7/8	± 3/4
C) Length, neck edge to bottom edge	48	± 3/4
D) Bib Width, edge to edge	11-3/8	± 1/4
E) Sweep Width, neck edge to waist edge	11-5/8	± 1/4
F) Grommet placement	1 inch from all designated corners	± 1/8

3.6 Toxicity. The finished apron shall not present a health hazard and shall show compatibility with prolonged, direct skin contact when tested as specified in 5.4. Chemicals recognized by the Environmental Protection Agency (EPA) as human carcinogens shall not be used.

3.7 Workmanship. The finished apron shall conform to the quality of product established by this document and shall be thoroughly cleaned and all loose thread and foreign matter removed.

4. REGULATORY REQUIREMENTS. Unless otherwise specified (see 3.2.1.1.1). The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

## 5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product conformance. The products provided shall meet the salient characteristics of this Commercial Item Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be a similar product that is offered for sale in the commercial marketplace. The Government reserves the right to require proof of such conformance.

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5.2 Visual examination. Each apron shall be examined for the defects listed in Table V.

TABLE V. Visual examination defects

<p><u>Material defects</u> Any hole, cut, abraded area, tear or rip; any spot or stain or foreign matter on outside; any peeling, cracking, sticking, flaking or excess of coating compound. Any blisters, pits, abrasions or tackiness. Color not as specified or not uniform due to discoloration, any shaded part, any objectionable odor</p>
<p><u>Seams and stitching</u> Loose or tight stitching tension, broken or missing thread or stitch, needle chew or improper stitching; any open seams, any part caught in an unrelated operation or stitching; raw edge, thread breaks, thread ends not removed; pulled or snagged stitches</p>
<p><u>Workmanship</u> Any component part omitted, dusting powder omitted, measurement of item not as specified; design not as specified.</p>
<p><u>Labels</u> Label(s) missing, incorrect, or illegible; bar code or UPC code label (when required, see 7.6) omitted or not readable by scanner; human-readable interpretation (HRI) omitted or illegible; bar code not visible on folded, packaged item; bar code label causes damage to the item.</p>
<p><u>Packaging</u> Not packaged in accordance with the contract or purchase order.</p>

5.3 Dimensional examination The finished apron shall conform to the dimensions specified in 3.5 and Figure 1. Any dimension that is not within tolerance shall be classified as a defect.

5.4 Toxicity test. When required (see 7.6), an acute dermal irritation study and a skin sensitization study shall be conducted on laboratory animals. When the results of the studies indicate the apron is not a sensitizer or irritant, a Repeat Insult Patch Test shall be performed in accordance with the Modified Draize Procedure (see 7.1.2.3). If the toxicity requirement (see 3.6) can be demonstrated with historical use data, toxicity testing may not be required.

5.5 Acceptance criteria. Acceptance criteria shall be as specified in the contract or purchase order.

## 6. PACKAGING.

6.1 Packaging. Preservation, packing, and marking are as specified in the contract or order (see 7.4).

## 7. NOTES.

7.1 Sources of documents.

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### 7.1.1 Government documents.

7.1.1.1 Copies of Government documents are available online at <https://assist.daps.dla.mil/quicksearch/> or from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

7.1.1.2 Federal Acquisition Regulations are available online at <http://acquisition.gov/far/index.html> or by contacting the Superintendent of Documents at 202-512-1800.

### 7.1.2 Non-Government documents.

7.1.2.1 AATCC Standards are available online at <http://www.aatcc.org> or from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709-2215.

7.1.2.2 ASTM Standards are available online at <http://www.astm.org> or from ASTM INTERNATIONAL, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

7.1.2.3 Principles and Methods of Toxicology (fourth edition), A Wallace Hayes (editor), pp 1057 - 1060, 2001 are available from Taylor and Francis, Philadelphia PA or <http://www.taylorandfrancis.co.uk/>.

## 7.2 Referenced Documents.

FED-STD-595/34094 (Camouflage Green 483)  
MIL-DTL-32072 - Thread, Polyester  
AATCC Test Method 20, Fiber Analysis: Qualitative.  
AATCC Test Method 70, Water Repellency: Tumble Jar Dynamic Absorption Test  
AATCC Test Method 81, pH of the Water-Extract from Wet Processed Textiles  
AATCC Evaluation Procedure 9, Option A  
ASTM D 297 Standard Test Methods for Rubber Products – Chemical Analysis  
ASTM D 751 Standard Test Methods for Coated Fabrics  
ASTM D 3775 Standard Test Method for Warp (End) and Filling (Pick) Count of Woven Fabrics  
ASTM D 3776 Standard Test Method for Mass Per Unit Area (Weight) of Fabric  
ASTM D 5034 Standard Test Method for Breaking Strength and Elongation of Textile Fabrics ( Grab Test)

7.3 Miscellaneous. For access to standard samples, patterns and drawings address the contracting activity issuing the invitation for bids or request for proposal.

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7.4 Coating weight. The base cloth with a coating weight of 7.0 ( $\pm$  0.50) ounces per square yard on the front side and 4.25 ( $\pm$  0.25) ounces per square yard on the back side has been known to meet the requirements of 3.2.1.1.

7.5 Dusting Powder. Ground Potassium Aluminum Silicate common name is also known as Ground Mica and Ground Muscovite Mica and the Product Trade Name is C-3000. Known sources which meet the MSDS requirements of CAS # 12001-26-2 may also be referred to as Alden Rubber Talc part # C3000 or C-3000 from Zemex Industrial Minerals, 1040 Crown Pointe Parkway, Suite 270, Atlanta Georgia 30338, Phone (770) 392-8664 or (800) 290-2443.

7.6 Ordering data. The contract or order should specify the following.

- a. CID document number, title and revision
- b. Color required (tape/webbing only) (see 2.1)
- c. When toxicity testing is required (see 5.4)
- d. Acceptance criteria (see 5.6)
- e. Packaging requirements (see 6.1)

7.7 Key words.

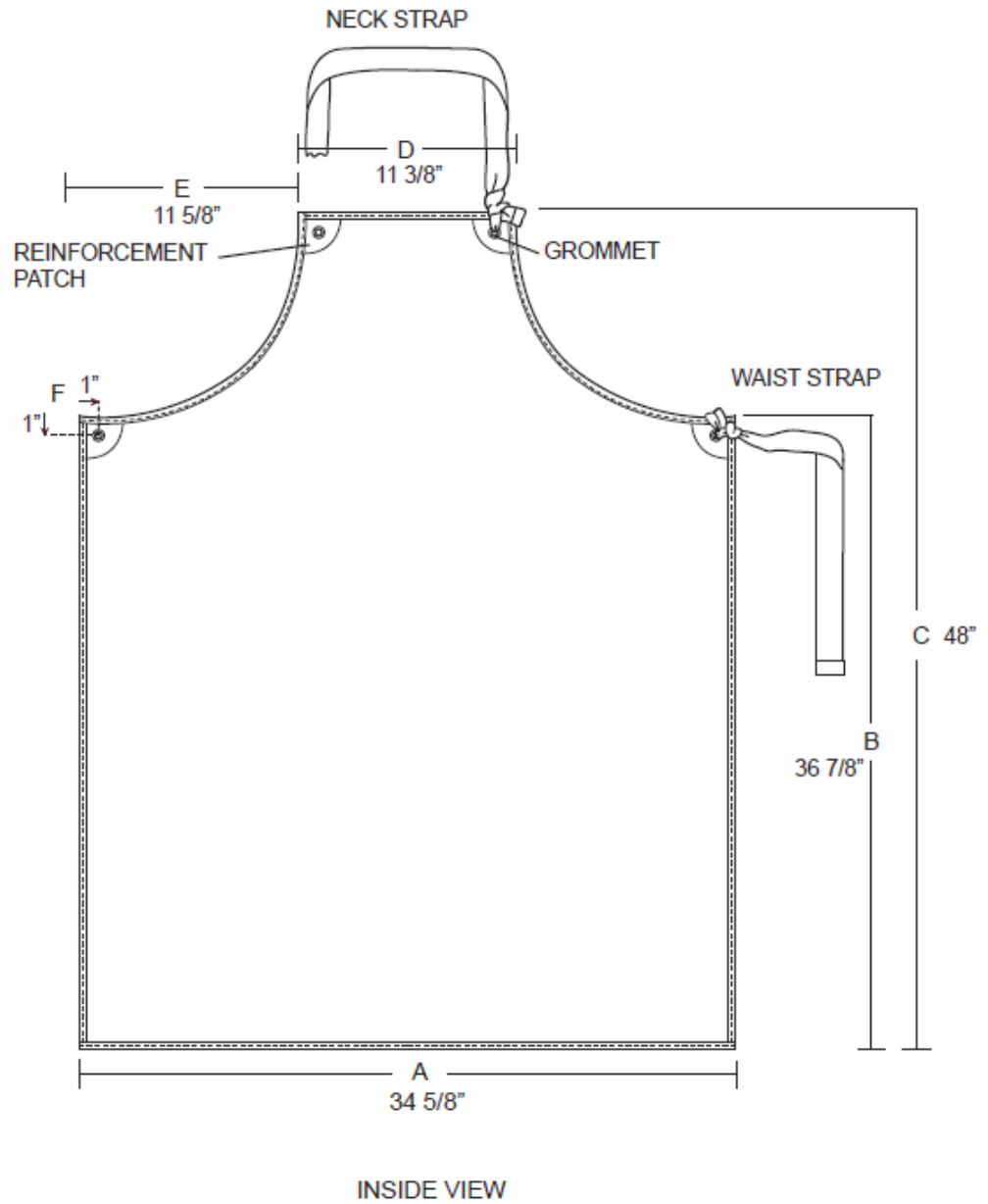
Abattoir worker  
Butcher  
Depot Maintenance  
Equipment Maintenance  
Material handling



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FIGURE 1. Apron, utility impermeable rubber coated fabric

NOTE:  
Back side  
shown  
All dimensions  
are in inches



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MILITARY INTERESTS:

Custodians:  
Army – GL  
Navy – NU  
Air Force - 99

Review Activities:  
Army – MD  
Air Force - 11  
Navy-MC, CG-1

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FSS

Preparing Activity:

DLA-CT

(Project 8415-2010-001)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using ASSIST Online database at <https://assist.daps.dla.mil/>.