

[INCH-POUND]
 A-A-50383B
November 10, 1999
 SUPERSEDING
 A-A-50383A
 March 23, 1998

COMMERCIAL ITEM DESCRIPTION

UNDERSHIRT, EXTREME COLD WEATHER, MEN'S AND WOMEN'S

The General Services Administration has authorized the use of this commercial item description for all Federal agencies.

1. SCOPE. This commercial item description covers the requirements for cold weather cotton knitted undershirt for wear by both men and women personnel as part of the cold weather outfit.

2. CLASSIFICATION. The undershirt shall be provided in the following sizes:

X-Small (XS)	Small (S)	Medium (M)	Large (L)	X-Large (XL)	XX-Large (XXL)
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3. SALIENT CHARACTERISTICS

3.1 Description. The undershirt shall be a pullover type having long sleeves, wristlets, and a collarete, made with a flat seam construction (see Figure 1). When circular knit cloth is used, one or both sides may be seamless.

Beneficial comments, recommendations, additions, deletions, clarifications, etc and any data which may improve this document should be sent to: Defense Supply Center Philadelphia, Clothing and Textiles Directorate, Attn: DSCP-CO, 700 Robbins Avenue, Bldg. 6D, Philadelphia, PA 19111-5092.

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3.2 Material.

3.2.1 Basic material. The material for the undershirt shall be knitted waffle-type cloth, either circular or flat knit. The cloth shall be natural color cotton yarn with a series of broken ridges in the length and width directions and on both fabric sides thus producing a dead air pocket construction. The finished cloth shall be scoured and thoroughly rinsed to produce a soft, lofty hand (texture). The cloth shall conform to the requirements specified in Table I.

TABLE I. Physical requirements

Characteristic	Requirements	Test method
Fiber identification	100 percent cotton	Visual
Yarn size	10-14/1 c.c. (weft knit) or 18-22/1 c.c. (Raschel)	Visual <u>1/</u>
Knit stitch (Raschel)		
Weight	11.1 \pm 1.0 sq. yd.	ASTM-D-3776, Option C
Fabric thickness	At 0.1 psi 0.08" (min.) At 1.1 psi 0.06" (min.)	ASTM-D-1777 <u>2/</u> ASTM-D-1777 <u>2/</u>
Pattern repeats per 10 inches	18-22 (wale direction) 65-85 (course direction)	Visual Visual
Bursting strength	100 pounds (min.)	ASTM-D-3787
Dimensional change	\pm 12 .0 percent (max.) wale/course direction	AATCC 96
Non-fibrous material	<u>3/</u>	ASTM-D-629
pH	5.0 to 8.5	ASTM-D-2165

1/ Chain setting for links:

Front Guide Bar: 4-0/2-6 (x5); 10-6/4-8 (x5)

Back Guide Bar: 10-6/4-8 (x5); 4-0/2-6 (x5)

2/ See 3.2.1.1.

3/ Not to exceed 3.0 percent and protein content including chloroform soluble material.

3.2.1.1 Thickness of fabric. A thickness gauge of the dead weight type equipped with a dial graduated to read directly to 0.001 inch shall be used. The presser foot shall be circular with a diameter of 1.129 ± 0.001 inches and with moving parts weighted to apply a total load of 0.60 ± 0.03 pounds per square inch to the specimen. The anvil shall be not less than 1.129 inches in diameter. The presser foot and the anvil surface shall be planed to within 0.0001 inches and shall be parallel to each other to within 0.0001 inches.

3.2.1.2 Wristlets and collarette The wristlets and collarette shall be knitted from unbleached cotton, 1x1 rib knit fabric, 20 wales and 35 courses per inch minimum when tested in accordance with ASTM-D-3787. The yarn size shall be 18/1, with a minimum bursting strength of 95 pounds when tested in accordance with ASTM-D-3787.

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3.2.2 Thread. The thread shall be cotton, machine thread with a soft finish, Tex 35 (per Threads USA Chart). The color shall be a natural color and a good match to the base cloth of the end item. The thread shall have a minimum breaking strength of 1.5 to 1.8 pounds when tested in accordance with ASTM-D-2256. The finished thread shall have no chemical finishes or treatments other than those used on commercial threads and no finish or treatment shall be applied for the purpose of increasing breaking strength. Colorfastness shall be consistent with the end item. As an alternate, any suitable textured polyester thread may be used in place of the cotton thread for all sewing operations.

3.3 Label. A commercial-type label is acceptable, provided that an additional printed cloth label containing the contractor's name, contract number, size and National Stock Number (NSN) is caught on the stitching of the commercial label. The commercial label shall include fiber and laundering information.

3.3.1 Label/tag. Each item shall be individually bar-coded with a paper tag for personal clothing items. The paper tag shall be standard bleached sulfate having a basis minimum weight of 100 pounds. The paper used for the tags shall have a smooth finish to accept thermal transfer and direct printing. The tags shall have a hole and shall be attached to each item by a fastener, clearly legible and readable by a scanner. The bar coding element shall be a 13 digit national stock number (NSN). 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.

3.4 Sizes and measurements. The finished undershirt shall conform to the measurements specified in Table II

TABLE II. Finished measurements (in inches) ^{1/}

Size	Chest (A)	Length (B)	Sleeve length (C)	Shoulder length (D)	Wristlet length (E)	Ankle width (F)
X-Small	12-1/2	26	23-1/4	2-3/4	3-1/2	3-3/4
Small	14-1/2	27	23-1/2	3-1/4	3-1/2	3-3/4
Medium	16-1/2	28	23-1/2	3-3/4	3-1/2	3-3/4
Large	18-1/2	29	23-3/4	4-1/4	3-1/2	3-3/4
X-Large	20-1/2	30	23-3/4	4-3/4	3-1/2	3-3/4
XX-Large	22-1/2	31	24	5	3-1/2	3-3/4
Tolerance	± 1	± 1	± 1/2	± 1/2	± 1/4	± 1/4

^{1/} For the location of A-F, refer to Figure 1.

4. REGULATORY REQUIREMENTS

4.1 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

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5. QUALITY ASSURANCE PROVISIONS

5.1 Product conformance. The products provided shall meet the salient characteristics of this commercial item description, and shall conform to the producer's own drawings, specifications, standards and quality assurance practices. The Government reserves the right to require proof of such conformance.

5.2 Visual examination. Each undershirt shall be examined for the defects listed below.

5.2.1 Defects. Any hole, cut, or tear; color not as specified; any part shaded; any spot or stain (outside); raw edges, open seams, thread ends not removed, or loose tension resulting in loose seams; any material defects, distorted parts or poor workmanship; any component part omitted; label missing, incorrect, or illegible; measurement of item not as specified; bar code omitted or not readable by scanner; human-readable interpretation (HRI) omitted or illegible; bar code not visible on folded, packaged item; bar code causes damage to the item; any items not packaged in accordance with the contract or purchase order.

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

6. PACKAGING

6.1 Preservation, packing, and marking. The preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES

7.1 Source of Government documents. Copies of military and Federal documents are available from:

Standardization Documents Order Desk
Bldg. 4D
700 Robbins Avenue
Philadelphia, PA 19111-5094

7.2 Source of non-Government documents

ASTM-D-629	-	Quantitative Analysis of Textiles
ASTM-D-1777	-	Thickness of Textile Materials
ASTM-D-2165	-	pH of Aqueous Extracts of Wool & Similar Animal Fibers
ASTM-D-2256	-	Tensile Properties of Yarn by The Single-Strand Method
ASTM-D-3776	-	Mass Unit of Area (Weight) of Fabric
ASTM-D-3787	-	Bursting Strength of Knitted Goods; Constant-Rate-of Traverse (CRT) Ball Burst Test
ASTM-D-4964	-	Elongation of Elastic Fabrics

(Applications for copies should be addressed to American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428.)

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AATCC 96 - Dimensional Changes in Commercial Laundering of
Woven and Knitted Fabrics Except Wool

(Applications for copies should be addressed to American Association of Textile Chemists and Colorists (AATCC), P.O. Box 12215, Research Triangle Park, NC 27709-2215.)

7.3 Suggested sources. In a limited market search for extreme cold weather undershirts that meet the salient characteristics of this commercial item description, the following manufacturers are listed below. It must be noted that this list is not all-inclusive and that there may be other manufacturers in the market place with a suitable product.

Anchortex, West Berlin, New Jersey 08091
Morgan Knitting Mills, Tower City, Pennsylvania 17980
Ultimate Military Sales, Virginia Beach, Virginia 23451
Union Knitting Mills, Schuylkill Haven, Pennsylvania 17972

MILITARY INTERESTS:

Custodians

Navy - NU
Air Force -99

Civil Agency Coordinating Activity:
GSA - FSS

Review Activities

Navy - CG
Air Force - 31, 45

Preparing Activity :
DLA - CT

Project 8415-0160

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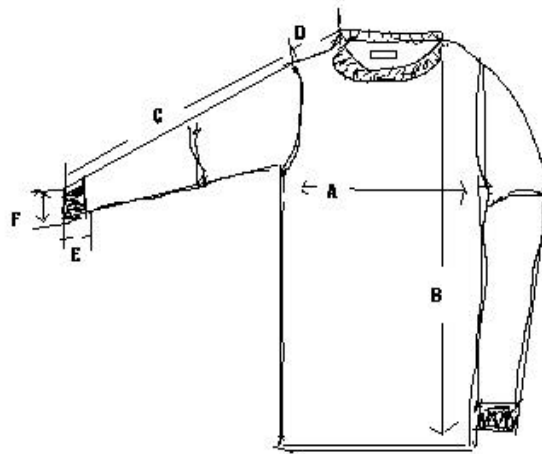


FIGURE 1

UNDERSHIRT, EXTREME COLD WEATHER, MAN'S AND WOMAN'