

INCH-POUND

A-A-50013F**June 22, 2009****SUPERSEDING****A-A-50013E****March 12, 1998****COMMERCIAL ITEM DESCRIPTION****UNDERSHIRT, QUARTER-SLEEVE**

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 a cotton, quarter-sleeve undershirt worn by military personnel of the Department of Defense.

2. **CLASSIFICATION**. The undershirt shall be of the following types, classes, and sizes as specified (see 7.5):

2.1 **Types**. Type I: Crew neck, cotton
Type II: "V" neck, cotton

2.2 <u>Classes</u> .	Class 1 - White	Class 5 - Navy Blue 3388
	Class 2 - Foliage Green 504	Class 6 - Brown 436
	Class 3 - Blue 3362	Class 7 - Olive Green 109
	Class 4 - Black 357	Class 8 - Air Force Sand 1643

<p>Comments, suggestions, or questions on this document should be addressed to: Defense Supply Center Philadelphia, Clothing and Textiles Directorate, Attn: DSCP Standardization Team, 700 Robbins Avenue, Philadelphia, PA 19111-5096. Since contact information can change, you may want to verify the currency of the address information using Acquisition Streamlining and Standardization Information System (ASSIST) online database http://assist.daps.dla.mil/.</p>

AMSC N/A**FSC 8420****DISTRIBUTION STATEMENT A.** *Approved for public release; distribution is unlimited*

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2.3 Sizes. The undershirts shall be of one of the following sizes: XX-Small, X-Small, Small, Medium, Large, X-Large, XX-Large, XXX-Large

3. SALIENT CHARACTERISTICS.

3.1 Description. The undershirts shall have hemmed quarter-length sleeves, a crew neck (Type I) or “V” neck (Type II) collarete, and a hemmed bottom (see Figures 1 and 2). The collarete shall be made of a double thickness of basic material to finish $\frac{7}{8}$ (+/- $\frac{1}{8}$) inch wide. The inside of the shoulder and back of collarete seam (shoulder to shoulder) shall be reinforced with $\frac{3}{8}$ to $\frac{1}{2}$ inch wide tape of basic knit fabric. The length of the neck binding shall be cut along the grain.

3.2 Materials.

3.2.1 Basic material. The body cloth shall be made of single or 2-ply 100 percent combed cotton yarn, knitted on a circular machine with a jersey stitch. No materials having a tendency to cause latent tendering or yellowing of the cloth shall be used in any of the dyeing or finishing operations. Resin finishes shall not be used. The cloth shall be preshrunk and shall conform to the requirements specified in Table I.

3.2.1.1 Collarete material. The collarete cloth shall be made of 100 percent combed cotton yarn and shall be a 1x1 rib knit cloth. No materials having a tendency to cause latent tendering or yellowing of the cloth shall be used in any of the dyeing or finishing operations. Resin finishes shall not be used. The cloth shall be preshrunk and shall conform to the requirements specified in Table I.

3.2.2 Color. The Type I undershirt and collarete fabric shall match the standard fabrics for Class 2, Class 3, Class 4, Class 5, Class 6, Class 7, and Class 8. The Class 1 undershirt and collarete fabric shall be bleached white. For the Type II undershirt and collarete fabric, the cloth shall be bleached white.

3.2.2.1 Visual shade matching. The color and appearance of the undershirts shall match the standard sample when viewed using AATCC Evaluation Procedure 9, Option A, with sources simulating artificial daylight D75 illuminant with a color temperature 7500 +/- 200°K, with illumination of 100 +/- 20 foot candles, and shall be a good match to the standard sample under incandescent lamplight at 2856 +/- 200°K.

TABLE I. Material requirements

Basic Material		
Characteristic	Requirement	Test Method
Fabric Weight (oz/sq yd.)	4.5 (+/- 0.2)	ASTM-D-3776, Opt. C
Fabric Count		
Wales per inch	30 (+/- 1.0)	ASTM-D-3887
Courses per inch	36 (+/- 1.0)	ASTM-D-3887
Bursting strength (pounds)	60	ASTM-D-3787

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TABLE I. Material requirements (continued)

Basic Material		
Characteristic	Requirement	Test Method
Colorfastness to: (min.)		
Laundering (3 cycles)	3 – 4 <u>1/</u> <u>2/</u>	AATCC 61, 3A
Crocking	3.5 <u>3/</u>	AATCC 8
Perspiration (acid & alkaline)	3 – 4 <u>1/</u>	AATCC 15
Light (40 hrs. or 170 kJ)	3 – 4 <u>4/</u>	AATCC 16, Opt. 1 or 3
Collarette Material		
Fabric count		
Wales per inch	24 (+/- 1.0)	ASTM-D-3887
Courses per inch	32 (+/- 1.0)	ASTM-D-3887
Colorfastness to: (min.)		
Laundering (3 cycles)	3 – 4 <u>1/</u> <u>2/</u>	AATCC 61, 3A
Crocking	3.5 <u>3/</u>	AATCC 8
Perspiration (acid and alkaline)	3 – 4 <u>1/</u>	AATCC 15
Light (40 hrs. or 170 kJ)	3 – 4 <u>4/</u>	AATCC 16, Opt. 1 or 3
End Item		
Shrinkage (percent, max.) (wales and courses)	10	AATCC 135 <u>5/</u>
pH	5.5 – 8.5	AATCC 81
Non-fibrous material content (percent, max)	6.0	ASTM-D-629
Toxicity	See 3.7	See 3.7.1

1/ Rated using the AATCC Evaluation Procedure 1, Gray Scale for Color Change and AATCC Evaluation Procedure 2, Gray Scale for Staining.

2/ Using 10 steel balls and 3 laundering cycles with drying after each cycle. Evaluation of the multifiber cloth for color transfer shall be made only on the cotton fiber float.

3/ Rated using the AATCC Evaluation Procedure 8, AATCC 9 – Step Chromatic Scale.

4/ Rated using the AATCC Evaluation Procedure 1, Gray Scale for Color Change

5/ Washing and drying conditions, 1/IV/Aiii., 5 cycles

3.2.1.2 Labile Sulfur. Dyes and compounds containing elementary sulfur capable of oxidation to Sulfuric acid shall not be used.

3.2.2 Thread. The thread shall be 100 percent cotton, Tex size 30, 2 or 3-ply, or Tex size 60, 3-ply, in accordance with Type I or II of A-A-52094. As an alternate, a 2-ply cotton or staple polyester-covered, polyester core thread, Tex size 25-30, 2-ply may be used, in accordance with Type I or II of A-A-50199. The color of the thread shall be as follows:

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White	Bleached white
Olive Green 109	Olive Drab, S-1, C.A. 66022 or equal
Brown 436	Khaki P-1, C.A. 66019 or equal
Air Force Sand 1643	Shall be a good match to the base cloth
Foliage Green 504	Shall approximately match the basic material
Navy Blue 3388	Blue AB, Cable 66044 or equal
Black 357	Shall approximately match the basic material
Blue 3362	Shall approximately match the basic material

3.3 Labels. Each undershirt shall have a commercially acceptable combination size and care label in accordance with Type V or Type VI, Class 14 of MIL-DTL-32075. The label shall be placed on the inside center back just below the collarette and shall contain the following information:

SIZE: MEDIUM (38-40) (EXAMPLE)
 NSN: 8420-00-000-0000 (EXAMPLE)
 CONTRACT NUMBER: SPM1C1-00-0-000 (EXAMPLE)
 CONTRACTOR'S NAME:
 100 PERCENT COMBED COTTON

Launder using permanent press cycle or hand wash/warm water. Tumble dry using permanent press cycle or drip dry on rustproof hanger.

For the Class 2, Class 3, Class 4, Class 5, Class 6, Class 7 and Class 8 undershirts, the following information shall be included in the label:

Do not use bleach.
 Use of acne medication containing benzoyl peroxide will cause discoloration.
 Do not remove this label.

As an alternate, the size and identification information may be on the side facing the wearer, and the care instructions on the opposite side.

3.3.1 Label/Tag. Each plastic bag (see 6.1) shall be individually bar-coded with a commercially acceptable pressure sensitive label. The bar-coding element shall be a 13 digit national stock number (NSN). There shall also be a 12 digit UPC Number assigned for all NSN's by the procuring agency. The UPC bar coding element shall be underneath the National Stock Number bar code. The initials UPC shall appear beneath the UPC bar code. The bar code for the NSN and UPC type shall be a medium to high code density and shall be located at the upper right corner of the plastic bag so that it is completely visible. Each label shall have the following inscription:

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MADE FOR DSCP

MANUFACTURER'S NAME

CONTRACT # SPO 100-00-0-000 (EXAMPLE)

SIZE: MEDIUM (38-40) (EXAMPLE)

NSN: 8420-00-000-0000 (EXAMPLE)

DESCRIPTION: CREW NECK (EXAMPLE)

COLOR: WHITE (EXAMPLE)

3.4 Figures. Figures 1 and 2 are furnished for informational purposes only. To the extent of any inconsistencies between the written document and the figures, the written document shall govern.

3.5 Sizes and measurements. The finished measurements shall be as specified in Table II.

TABLE II. Sizes and measurements

Sizes (Chest –inches)	(A) ½ Width (inches)	(B) Length (inches)	(C) Neck Opening (circumference – inches) Type I	(D) Neck Opening (circumference – inches) Type II
XX-Small (26-28)	14	27	16	23 ½
X-Small (30-32)	16	29	16 ½	24
Small (34-36)	18	30	17 ½	25
Medium (38-40)	20	31	18 ½	26
Large (42-44)	22	33	19 ½	27
X-Large (46-48)	24	33	20 ¼	27 ¾
XX-Large (50-52)	26	34	20 ¾	28 ¼
XXX-Large (54-56)	28	34	21 ¼	28 ¾
Tolerance	+/- ½	+/- 1	+/- 1	+/- 1

Unless otherwise specified the undershirt shall be laid flat and smooth when the measurements are taken.

(A) ½ Width. The measurement taken across the chest at the base of the armhole from folded edge to folded edge.

(B) Length. Body length taken on the front, from the collarette seam, at the shoulder, to the bottom of the shirt.

(C) & (D) Neck opening. Twice the measurement taken by grasping the collarette at center back and center front to form a straight edge, and measuring from folded edge to folded edge, with collarette relaxed.

3.6 Patterns. Commercial patterns shall be used. They shall conform to the design requirements cited in this document.

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3.7 Toxicity. The finished undershirt shall not present a health hazard and shall show compatibility with prolonged, direct skin contact when tested as specified in 3.7.1. Chemicals recognized by the Environmental Protection Agency (EPA) as human carcinogens shall not be used.

3.7.1 Toxicity Test. An acute dermal irritation study and a skin sensitization study shall be conducted on laboratory animals. When the results of these studies indicate the undershirt is not a sensitizer or irritant, a Repeat Insult Patch Test shall be performed in accordance with the Modified Draize Procedure. (see 7.2.3). If the toxicity requirement (see 3.7) can be demonstrated with historical use data, toxicity testing may not be required (see 7.5).

4. REGULATORY REQUIREMENTS.

4.1 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 offered 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 market. The Government reserves the right to require proof of such conformance.

5.2 Market Acceptance Criteria. The item offered, or a generic equivalent, must have been sold to the commercial market or to the Government.

5.3 Visual Examination. Each undershirt shall be examined for the following defects as in Table III.

TABLE III. Visual examination defects

<u>Material defects</u>
Any hole, cut, tear, mend, run or drop stitch, loose knit, miss knit, slub, streak, knitted in waste, thin area, permanent fold, pleat or crease; any spot or stain on outside, discoloration or color not as specified, any shaded part, any objectionable odor
<u>Seams and stitching</u>
Loose or tight stitching tension, broken or missing thread or stitch, needle chew; any part caught in an unrelated operation or stitching; raw edge, thread breaks, thread ends not removed; any seam puckered, pulled, distorted, pleated, irregular or open; pulled or snagged stitches, twisted seams

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TABLE III. Visual examination defects (continued)

<u>Workmanship</u>
Any component part omitted, twisted, not specified size, missing, misplaced, or poorly shaped; any dimension of item not as specified; neck stretched or loose; design not as specified.
<u>Labels</u>
Label(s) missing, incorrect, or illegible; bar code or UPC code label 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.
<u>Packaging</u>
Not packaged in accordance with the contract or purchase order.

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

6. **PACKAGING.**

6.1 Preservation, packing and marking. Preservation, packing and marking shall be specified in the contract or order (see 7.5).

7. **NOTES.**

7.1 Sources of Government documents.

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

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

7.2 Sources of Non Government Documents.

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

7.2.2 ASTM Standards are available online at www.astm.org or from ASTM International, 100 Barr Harbor Drive, P.O. Box C700 West Conshohocken, PA 19428-2959.

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7.2.3 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/>.

7.3 Referenced Documents.

A-A-52094 - Thread, Cotton

A-A-50199 - Thread, Polyester Core, Cotton, or Polyester-Covered

MIL-DTL-32075 - Label, for Clothing, Equipage, and Tentage (General Use)

7.4 Miscellaneous.

For access to standard samples, address the contracting activity issuing the invitation for bids or request for proposal. Standard samples are also available at DSCP through <http://warfighter.dla.mil> under tab “Vendor Info” then “Specifications/Pattern Request” under “Special Instructions” provide all applicable information to the solicitation/contract number.

7.5 Ordering Data.

The contract order shall specify the following:

- a. Commercial Item Description document number.
- b. Type, classes, and sizes required.
- c. Product conformance provisions.
- d. Packaging requirements.
- e. When toxicity testing is required.

7.6 Key Words.

T-Shirt

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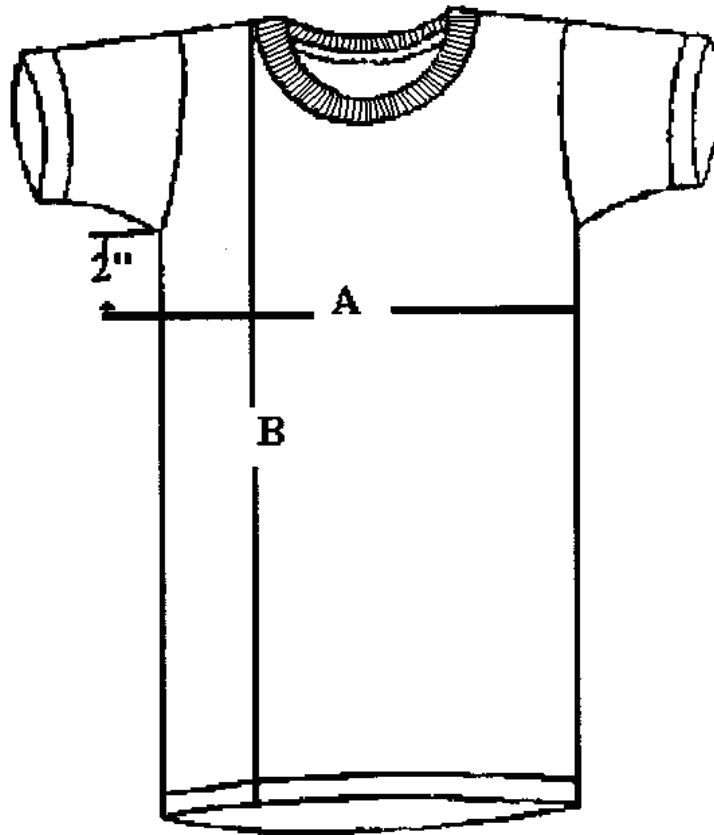


FIGURE 1. Type I

Note: Dimension "A" is measured 2 inches below the armhole openings from folded edge to folded edge.

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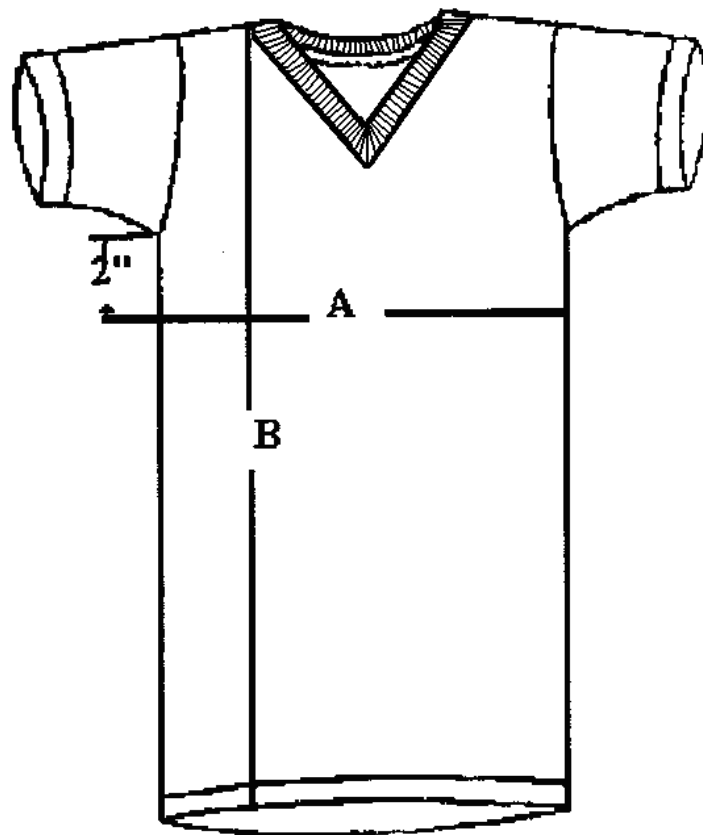


FIGURE 2. Type II

Note: Dimension "A" is measured 2 inches below the armhole openings from folded edge to folded edge.

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MILITARY INTERESTS:

Custodians:

Army – GL

Navy – NU

Air Force – 11

Review Activities:

Navy – MC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FSS

PREPARING ACTIVITY:

DLA – CT

Project Number:

8420-2007-001

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