

NOTE: This draft, dated 16 December 2022, prepared by United States Marine Corps, has not been approved and is subject to modification. DO NOT USE PRIOR TO APPROVAL. (Project 8415-2022-040)

FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

INCH-POUND

MIL-DTL-MC033

DRAFT

DETAIL SPECIFICATION

UNDERSHIRT, MESH, COLD WEATHER BASELAYER

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

1. SCOPE

1.1 Scope. This document covers the requirements for a no melt/no drip mesh undershirt baselayer for use in cold weather.

1.2 Classification. The mesh undershirt is available in one type and one class in the sizes specified in 1.2.2.

1.2.1 Class.

Class 1 – Coyote 498

1.2.2 Sizes. The undershirts are of the following sizes, as specified (see 6.2).

Extra Small (XS)

Small (S)

Medium (M)

Large (L)

Extra Large (XL)

Extra Extra Large (XXL)

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 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 cited in the solicitation or contract.

COMMERCIAL ITEM DESCRIPTIONS

A-A-55217 - Thread, Meta-Aramid, Spun Staple

DEPARTMENT OF DEFENSE SPECIFICATIONS

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

MIL-DTL-MC034 - Cloth, Mesh Knit

Comments, suggestions, or questions on this document should be addressed to Marine Corps Systems Command, 2200 Lester Street, Quantico, VA 22134 ATTN: SEAL-SE-STDS or emailed to USMC_STDZ@usmc.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

MIL-DTL-MC033 (DRAFT 16 DEC 2022)
FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

MIL-DTL-MC035 - Cloth, Jersey Knit

MIL-DTL-MC036 - Cloth, Rib Knit

(Copies of these documents are available online at <https://quicksearch.dla.mil/>.)

2.2.2 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 of these documents are those cited in the solicitation or contract.

CODE OF FEDERAL REGULATIONS

40 CFR - Protection of Environment

(Copies of this document are available online at <https://www.ecfr.gov/>.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AMERICAN SOCIETY FOR QUALITY (ASQ)

ASQ/ANSI Z1.4 - Sampling Procedures And Tables For Inspection By Attributes

(Copies of this document are available online at www.asq.org/.)

ASTM INTERNATIONAL

ASTM D6193 - Standard Practice for Stitches and Seams

(Copies of this document are available online at www.astm.org/.)

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)

OECD Guidelines for the Testing of Chemicals, - Acute Dermal Irritation/Corrosion
Section 4, Test No. 404

OECD Guidelines for the Testing of Chemicals, - Skin Sensitisation
Section 4, Test No. 406

(Copies of these documents are available online at <https://www.oecd-ilibrary.org/>.)

SAE INTERNATIONAL

AMS-STD-595 - Colors Used in Government Procurement

AMS-STD-595/20150 - Coyote 498

(Copies of these documents are available online at www.sae.org/.)

2.4 Order of precedence. Unless otherwise noted herein or in the contract, 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 Inspections.

3.1.1 First article. When specified (see 6.2), a sample shall be subjected to first article inspection in accordance with 4.3.

3.1.2 Conformance inspection. When specified (see 6.2), a sample shall be subjected to conformance inspection in accordance with 4.4.

MIL-DTL-MC033 (DRAFT 16 DEC 2022)
FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

3.2 Recycled, recovered, environmentally preferable, or biobased materials. Recycled, recovered, environmentally preferable, or biobased 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.

3.3 Design. The undershirt shall be constructed with a fully open net-like mesh knit material and have jersey knit shoulder panels, underarm gussets, and rib knit collar and sleeve cuffs as shown on [figures 1](#) and [2](#).

3.4 Materials and components.

3.4.1 Basic materials.

3.4.1.1 Torso and sleeves (mesh knit). The basic material for the torso and sleeves shall be an open, net-like, mesh; warp knit in Coyote 498 (color chip 20150 of AMS-STD-595) (see 6.7) and conform to type 1, class 1 of MIL-DTL-MC034 when tested as specified in 4.5.1.

3.4.1.2 Shoulder panels and underarm gussets (jersey knit). The basic material for the shoulder panels and underarm gussets shall be a single jersey knit in Coyote 498 (color chip 20150 of AMS-STD-595) (see 6.7) and conform to type 1, class 1 of MIL-DTL-MC035 when tested as specified in 4.5.1.

3.4.1.3 Cuffs and collar (rib knit). The basic material for the undershirt collar and sleeve cuffs shall be a rib knit jersey in Coyote 498 (color chip 20150 of AMS-STD-595) (see 6.7) and conform to the requirements specified in type 1, class 1 of MIL-DTL-MC036 when tested as specified in 4.5.1.

3.4.2 Components.

3.4.2.1 Thread. The threads used in the construction of the undershirt shall conform to the requirements of A-A-55217, type I, Tex 27 when tested as specified in 4.5.1. The shade shall be a good match to Coyote 498 (color chip 20150 of AMS-STD-595) (see 6.7).

3.4.2.2 Labels. The undershirt labels shall conform to the requirements of [table I](#) when verified as specified in 4.5.1. The permanent label physical requirements, inscription, location, and attachment method shall be in accordance with the requirements of [table I](#). Dimensional tolerance is $\pm 1/8$ inch. Stitching on labels shall not obscure the printing.

MIL-DTL-MC033 (DRAFT 16 DEC 2022)
FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

TABLE I. Labels.

Label features	Requirements
1. Combination size and identification label	
a. Physical requirements	(1) Conform to MIL-DTL-32075, type VI, class 2, except that the label shall be 1-1/4 inches wide by 2 inches long (excluding seam allowance)
	(2) Background color white or natural color
b. Inscription	(1) Be black and contain the following information and be in the configuration below: UNITED STATES MARINE CORPS UNDERSHIRT BASELAYER CONTRACT NO: NSN: FIBER CONTENT: CONTRACTOR’S NAME: SIZE:
c. Location/attachment	(1) Caught in the collar seam join at center back
	(2) Inscription facing the wearer
2. Care instruction label	
a. Physical requirements	(1) Conform to MIL-DTL-32075, type VI, class 3, except that the label shall be 1-1/4 inches wide by 2 inches long (excluding seam allowance)
	(2) Background color white or natural color
b. Inscription	(1) Be black and contain the following information and be in the configuration below: Machine wash in lukewarm water (105 °F) Tumble dry low or line dry Do not use fabric softeners DO NOT BLEACH, DRY CLEAN, OR IRON
c. Location/attachment	(1) Set into wearer’s left side seam at 4 inches from the bottom hem (as worn)
	(2) Inscription facing the wearer
3. Barcode label	
a. Physical requirements	(1) Conform to MIL-DTL-32075, type VI, class 17
	(2) The barcodes for the National Stock Number (NSN) and Universal Product Code (UPC) shall be a medium to high density
b. Barcode element	(1) 13-digit NSN and the appropriate 12-digit Universal Product Code (UPC) assigned to the NSN by the Government
	(2) The initials “UPC” shall appear beneath the code
c. Location/attachment	(1) Each undershirt individually barcoded
	(2) Attached to the garment by a hangtag fastener
	(3) Located so it is completely visible on the item when folded or packaged as specified in 5.1
	(4) Location and attachment method shall cause no damage to the item

3.5 Figures. [Figures 1](#) and [2](#) are provided for information only. When inconsistencies exist between the written specification and the figures, the written specification shall govern.

MIL-DTL-MC033 (DRAFT 16 DEC 2022)
FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

3.6 Patterns. Standard patterns will be furnished by the Government, as specified (see 6.2). Government patterns show size, seam allowances, and directional lines for cutting and are marked or notched for proper placement and assembly of component parts. The directional lines indicate the warp direction of the cloth unless otherwise indicated on the patterns. The list of pattern parts in 3.6.1 is provided to ensure that the pattern set provided is complete. The Government patterns shall not be altered in any way and shall only be used for cutting the contractor’s working patterns. The contractor’s working patterns shall be identical to the Government patterns, except that additional notching, if needed to facilitate manufacture, is permitted on the contractor’s working patterns. Minor modifications are permitted where necessary to accommodate the manufacturer’s processes and the use of automated equipment, provided the modifications do not alter the dimensional, serviceability, or appearance requirements cited in this document or governed by the Government pattern.

3.6.1 Pattern parts. Component parts shall be cut from the materials specified and in accordance with the number of parts specified in [table II](#).

TABLE II. Pattern parts.

Material	Requirement	Piece part	Cut parts
Mesh basic material (torso and sleeves)	3.4.1.1	BACK	1
		FRONT	1
		SLEEVE	2
Jersey basic material (shoulder panels and underarm gussets)	3.4.1.2	SHOULDER	2
		GUSSET	2
Rib knit basic material (cuffs and collar)	3.4.1.3	COLLAR	1
		CUFF	2

3.7 Construction. End item construction and appearance shall conform to the requirements of [table III](#), [table IV](#), [figure 1](#), and [figure 2](#), and the finished dimensions cited in 3.8 to maintain end item configuration as verified in 4.5.3 and 4.5.4.

TABLE III. Construction requirements.

Construction feature	Requirement
1. Thread	
a. Type and size	(1) In accordance with 3.4.2.2.
b. Tension	(1) Maintained so that there is no tight, loose, or unbalanced stitching.
c. Shade	(1) Consistent and good match to basic material. Multiple shades of thread not allowed.
d. Thread breaks (all stitch types)	(1) Secured by stitching back of the break not less than 1/2 inch.
e. Ends	(1) Trimmed to 1/4 inch or less.
f. Loose	(1) All removed.
2. Stitches and seams	
a. Stitch and seam types	(1) In accordance with ASTM D6193.
	(2) In accordance with table IV .
b. Appearance	(1) Consistent, exhibiting a uniform appearance.
c. Seams and seam allowances	(1) A 3/8-inch gauge is provided for all seaming.
	(2) Maintained with seams uniformly sewn so that no raw edges, runoffs, twists, pleats, puckers, gathers, other distortions, or open seams result.
	(3) All seams shall start and finish evenly.
d. Stitches per inch	(1) All seams shall be 10-14 stitches per inch except stitch type 607, which shall be 12-14 stitches per inch.
e. Raw edges	(1) There shall be no raw edges on the outside of the garment.
	(2) Edges shall not ravel.
f. Joined components.	(1) Lie smooth and flat.
g. Tacking and backstitching.	(1) Ends of seams and rows of stitching, when not caught in other seams or stitching, shall be securely backstitched not less than 1/4 inch.
	(2) Thread breaks (all stitch types) shall be secured by stitching back of the break not less than 1/2 inch.
3. Bartacks	(1) In accordance with tables IV and V .

TABLE IV. Seams and stitches.

Seaming area and operations	Stitch type	Seam type
Collar set, then finished with 3-thread coverstitch	406	N/A
Armhole, shoulder side seam, gussets, sleeve, sleeve cuff set with 4-needle 6-thread 1/4-inch flatlock	607	N/A
Bottom hem and side seam	605	N/A
Setting of cuff	607	N/A

MIL-DTL-MC033 (DRAFT 16 DEC 2022)
 FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

TABLE V. Bartacks.

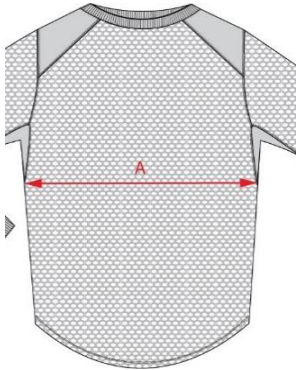
Location	Length (inches)	Quantity (per item)
Horizontal centered at seam intersection of hem and side seam	5/8	2
Horizontal centered at seam intersection of cuff and sleeve inseam	5/8	2

3.8 Finished dimensions. The undershirt shall conform to the measurements in [table VI](#) as defined in [table VII](#). All measurements shall be taken with the undershirt laid on a flat, clean surface with all folds smooth, being careful not to stretch or distort the undershirt. All measurements shall be taken from the front of the undershirt. Sleeve lengths on the undershirt shall not be uneven by more than 1/2 inch from the wearer’s left to the wearer’s right.

TABLE VI. Finished undershirt measurements (inches).

Code	Point of measure	Tol.	XS	S	M	L	XL	XXL
A	Half chest	±3/4	20-1/2	22-1/2	24-1/2	26-1/2	28-1/2	30-1/2
B	Half waist	±3/4	17-3/4	19-3/4	21-3/4	23-3/4	25-3/4	27-3/4
C	Half sweep	±3/4	16-7/8	18-7/8	20-7/8	22-7/8	24-7/8	26-7/8
D	Center back length	±1/2	28-1/2	29	29-1/2	30	30-1/2	31
E	Half neck opening	±1/4	8-1/4	8-1/2	8-3/4	9	9-1/4	9-1/2
F	Across shoulder	±3/4	18-1/4	19-1/2	20-3/4	21-7/8	23-1/8	24-1/4
G	Sleeve outseam	±1/2	24-1/4	24-1/2	24-3/4	25	25-1/4	25-1/2
H	Half sleeve opening – relaxed	±1/4	4	4-1/4	4-1/2	4-3/4	5	5-1/4
I	Cuff height	±1/4	3-1/8	3-1/8	3-1/8	3-1/8	3-1/8	3-1/8

TABLE VII. Methods of measure.

Code	Point of measure	Method	Guidance
A	Half chest	With underarm gussets smooth, measure at the bottom of the gusset from folded edge to folded edge straight across the undershirt chest.	 <p>The diagram shows a front view of a short-sleeved undershirt. A red double-headed arrow labeled 'A' indicates the measurement across the chest, taken from the bottom edge of the underarm gussets on one side to the bottom edge of the gussets on the other side, straight across the chest.</p>

MIL-DTL-MC033 (DRAFT 16 DEC 2022)
 FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

TABLE VII. Methods of measure – Continued.

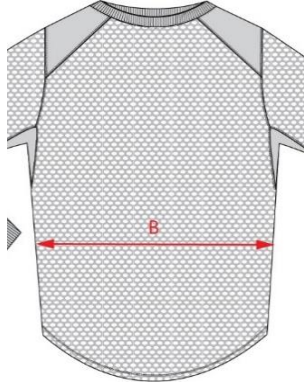

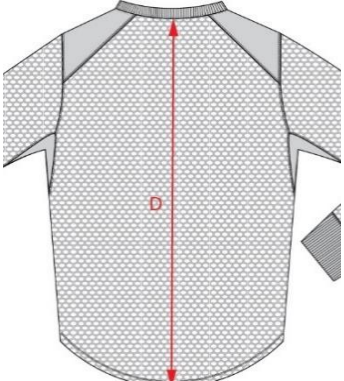
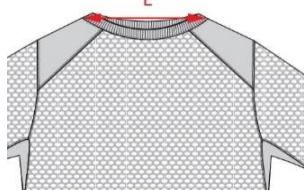
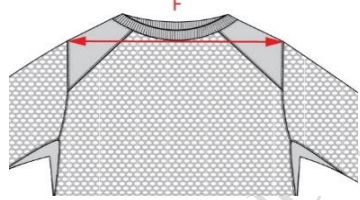
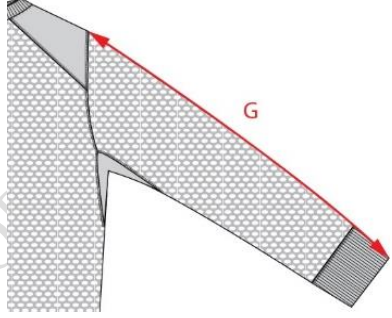
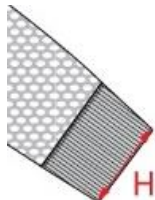
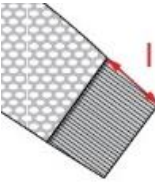
Code	Point of measure	Method	Guidance
B	Half waist	In a straight line, measure at the narrowest point of the torso between underarm gussets and the bottom hem from folded edge to folded edge.	
C	Half sweep	In a straight line, measure parallel to the bottom hem of the undershirt from folded edge to folded edge.	
D	Center back length	At center back, measure straight from the collar joining seam to the bottom edge of the undershirt.	
E	Half neck opening	<p>With the top edges of the collar aligned, measure at the center of the collar straight from folded edge to folded edge.</p> <p>Note: Collar NOT aligned in figure.</p>	

TABLE VII. Methods of measure – Continued.

Code	Point of measure	Method	Guidance
F	Across shoulder	In a straight line, measure from the top of the shoulder seam across to the top of the shoulder seam.	
G	Sleeve outseam	With sleeve folded along the underarm seam, measure from the shoulder joining seam along the natural folded edge to the bottom of the sleeve cuff.	
H	Half sleeve opening – relaxed	In a straight line, measure along the sleeve opening from folded edge to folded edge.	
I	Cuff height	In a straight line, measure along the cuff-side edge from the sleeve joining seam to the bottom of the sleeve cuff.	

3.9 Toxicity. When tested as specified in 4.5.5, the finished undershirt shall not present a health hazard and shall show compatibility with prolonged direct skin contact with requirements as specified in 40 CFR §798.2250, Dermal Toxicity, and 40 CFR §798.4100, Dermal Sensitization. Chemicals recognized by the Environmental Protection Agency (EPA) as human carcinogens shall not be used.

3.10 Workmanship. Each finished undershirt shall conform to the quality of product established by this document. Defects shall not exceed the established maximum acceptance quality limits (AQL) (see 6.2) and shall not adversely affect the serviceability, appearance, and uniformity of the product.

4. VERIFICATION

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

MIL-DTL-MC033 (DRAFT 16 DEC 2022)
FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

- a. First article inspection (see 4.3).
- b. Conformance inspection (see 4.4).

4.2 Inspection conditions. Unless otherwise specified, all inspections shall be performed in accordance with the test conditions specified in applicable test method documents cited in 4.5.

4.3 First article inspection. The first article, in accordance with 3.1.1, shall be examined in accordance with 4.5.1 through 4.5.4 for compliance with testing, design, configuration, workmanship, and dimensional requirements as specified in this document.

4.3.1 First article samples and acceptance criteria. The first article sample size shall be as specified (see 6.2). The sample unit shall be one finished undershirt. The lot size shall be expressed in units of undershirts. The presence of defects exceeding AQLs specified in the procurement document (see 6.2) or failure of any testing shall be cause for rejection of the first article.

4.4 Conformance inspection. Unless otherwise specified in the contract (see 6.2), conformance inspection, in accordance with 3.1.2, shall consist of the examinations and tests specified in 4.5.1 through 4.5.4

4.4.1 Material and components sampling and acceptance criteria. Unless otherwise specified in referenced documents or procurement documents (see 6.2), material and component sampling shall be in accordance with [table VIII](#). The unit for expressing lot size and sample unit shall be in accordance with the applicable referenced documents. The component lot shall be unacceptable if one or more sample units fail to meet any examination or test requirements specified in this document. For material testing, the sample unit shall be 5 continuous yards full width of the finished cloth for all physical and chemical tests.

TABLE VIII. Material and component sampling.

Lot size	Sample size (sample unit)
800 or less	2
801 through 22,000	3
22,001 or more	4

4.4.2 End item sampling and acceptance criteria. Unless otherwise specified in the contract (see 6.2), sampling for inspection shall be performed in accordance with ASQ/ANSI Z1.4. The sample shall be one finished undershirt. The lot size shall be expressed in units of undershirts. The presence of defects exceeding the AQL as defined in the procurement document (see 6.2) or failure of any testing as specified shall be cause for rejection of the lot.

4.5 Inspection methods.

4.5.1 Materials and components examinations and tests. In accordance with 3.4, the materials and components shall be examined and tested in accordance with the specified examinations and tests referenced in [table IX](#) unless otherwise excluded, amended, or modified in this document or applicable procurement documents (see 6.2).

TABLE IX. Material and component verification.

Material/component	Requirement	Verification
Basic materials		
Mesh	3.4.1.1	MIL-DTL-MC034, type 1, class 1
Jersey	3.4.1.2	MIL-DTL-MC035, type 1, class 1
Rib knit	3.4.1.3	MIL-DTL-MC036, type 1, class 1
Thread	3.4.2.1	A-A-55217
Combination size and identification label	3.4.2.2	MIL-DTL-32075, type VI, class 2
Care instruction label	3.4.2.2	MIL-DTL-32075, type VI, class 3
Barcode label	3.4.2.2	MIL-DTL-32075, type VI, class 17

4.5.2 In-process examination. Visual and dimensional examinations shall be made at any point or during any phase of the manufacturing process to determine whether construction details, which cannot be examined in the finished product, are in accordance with the requirements specified in section 3. Materials and components that contain defects and damages, as defined in the visual examination of 4.5.3, shall be removed from production. Any in-process nonconformance remaining in the finished undershirts shall be classified as a defect in accordance with the visual examination of 4.5.3.

4.5.3 Visual examination of the end item. The undershirt shall be examined for defects in color, design, material, construction, workmanship, and marking, and the defects shall be classified in accordance with the list of defects specified in [table X](#). The inspection conditions and the AQLs shall be as specified in the contract (see 6.2).

TABLE X. Defects.

Part	No.	Defect	Classification	
			Major	Minor
Material	1	Hole, drill hole, run, needle chew, abrasion damaging the fabric, thin place, misweave, or drop stitch affecting appearance or serviceability	101	
	2	Any weakening defect such as smash, multiple float, or loose slub that might develop into a hole.	102	
	3	Scissor or knife cut, tear, visible mend, pull, snag, or burn	103	
Material components and assembly	1	Component part omitted.	104	
	2	Component part distorted, full, tight, or twisted; any part of undershirt caught in any unrelated stitching.		201
	3	The edge of any component part required to be forced out having folds of more than 1/8 inch		202
Shade	1	Shade variation within a part or between parts		203
	2	Dye streak, color not as specified		204
	3	Thread color not as specified		205

MIL-DTL-MC033 (DRAFT 16 DEC 2022)
FOR PROPOSAL USE ONLY – NOT FOR PRODUCTION

TABLE X. Defects – Continued.

Part	No.	Defect	Classification	
			Major	Minor
Seams and seaming	1	Seams puckered, distorted, pleated, wavy, or twisted; edge or raised stitching sewn too close to edge, resulting in damage to cloth		206
	2	Seams irregular or open seam less than 1/8 inch, raw edge affecting appearance or serviceability		207
	3	Open seam over 1/8 inch	105	
	4	Seam, seam allowance, or stitch type not as specified, seam allowances under specification		208
	5	Loose or tight stitch tension, broken or missing thread or stitch, or incorrect gauge used to stitch type		209
	6	Thread breaks or ends of stitching (if not caught in other seams or stitching) not securely backtacked		210
	7	Gauge of stitching (edge or top stitching) irregular (i.e., unevenly gauged or corresponding stitching not uniformly gauged), affecting appearance		211
	8	Stitches skipped or broken more than 1/4 inch but not more than 1/2 inch (on edge or top stitching when seam is seamed, turned, and stitched)		212
	9	Raw edges more than 1/8 inch but not more than 1/4 inch		213
	10	Run offs more than 1/2 inch but not more than 1 inch on edge or top stitching if not resulting in open seam		214
Bartacks	1	Bartacks missing, insecure, misplaced, not specified size, not serving intended purpose, or stitches loose or broken		215
Cleanliness	1	Spot or stain		216
	2	Odor		217
	3	Thread ends not trimmed throughout exterior of garment		218
	4	Seven or more thread ends on the interior of the garment measuring more than 1/2 inch	106	
Labels	1	Label omitted; incorrect type, size, or configuration; illegible; inaccurate; improperly attached as specified; or peeling	107	
	2	Barcodes omitted or not readable by scanner; human readable interpretation (HRI) omitted or illegible		219
	3	Barcode not visible on folded, packaged item		220
	4	Barcode attachment causes damage to the item		221
Packaging	1	Any undershirt not packaged in accordance with the contract or purchase order		222
	2	Any additional items included within the purchase order not part of the solicitation		223

4.5.4 Dimensional examination. The undershirt shall be examined for conformance to the dimensions specified in [table VI](#) as defined in [table VII](#). Any measurement deviating from dimensions and tolerances specified shall be scored as a measurement defect. The inspection conditions and the AQL shall be as specified in the contract (see 6.2).

4.5.5 Toxicity test. When the toxicity requirement (see 3.6) can be demonstrated with historical use data, toxicity testing may not be required on the finishing treatments used. If dermal toxicity testing is required (see 6.2), it shall be conducted in accordance with 40 CFR §798.2250 and 40 CFR §798.4100, which are consistent with OECD Guidelines for the Testing of Chemicals, Section 4, Test Nos. 404 and 406 (see 6.6).

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

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 undershirt is part of a base layer set intended for use with the cold weather clothing layering system worn by personnel of the United States Marine Corps.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of this specification.
- b. NSNs.
- c. Sizes required (see 1.2).
- d. First article samples required (see 3.1.1).
- e. When conformance inspection is required (see 3.1.2).
- f. Applicable Government patterns (see 3.6).
- g. AQLs and inspection conditions (see 3.10, 4.5.3, and 4.5.4).
- h. First article sampling and acceptance criteria (see 4.3.1).
- i. Conformance inspection, if other than as specified (see 4.4).
- j. Material and component sampling and acceptance criteria, if other than as specified (see 4.4.1).
- k. End item sampling and acceptance criteria (see 4.4.2).
- l. Materials and components examinations and tests exclusions (see 4.5.1)
- m. When toxicity testing is required (see 4.5.5).
- n. Packaging requirements (see 5.1).
- o. Shade standard information, as applicable (see 6.7).

6.3 Information requests. Information such as purchase descriptions, patterns, drawings, and standard shade samples of cloth may be requested by completing and submitting the Defense Logistics Agency Troop Support's Clothing and Textile Specification/Drawing/Pattern Request Form, which is available online at <https://www.dla.mil/TroopSupport/ClothingandTextiles/SpecRequest.aspx>. Requests to use equivalent materials or components or to make changes to the pattern should be sent to the contracting officer for approval by the military services.

6.4 NSNs. For informational purposes only, representative NSNs for items in this specification are listed in [table XI](#). [Table XI](#) is not intended to be a comprehensive list of all NSNs associated with this specification.

TABLE XI. NSNs.

NSN	Size
8415016968304	Medium

6.5 Fit information. The undershirt should fit close to the body, offering adequate wearing and functional ease without appearing baggy or loose. The undershirt hem should sit at approximately the low hip. The undershirt features a drop shoulder. The armhole should fit comfortably with no restriction.

6.6 Toxicity testing. OECD Guidelines for the Testing of Chemicals, Section 4, Test Nos. 404 and 406 are recommended by the Office of the Surgeon General, but other test methods may be used. It is recommended that alternative test methods are assessed by the contracting agency prior to being used to address the toxicity requirements.

6.7 Shade criticality. Some items may be deemed “non-shade-critical” by the contracting agency and alternative shade standards or information regarding shade may be specified in the contract or order (see 6.2). It is recommended that manufacturers refer to the contract or order to determine the criticality of the shade matching or alternate shade standards that are acceptable.

6.8 Subject term (key word) listing.

Extreme cold weather

Marine Corps

No drip

No melt

Thermal

Underlayer

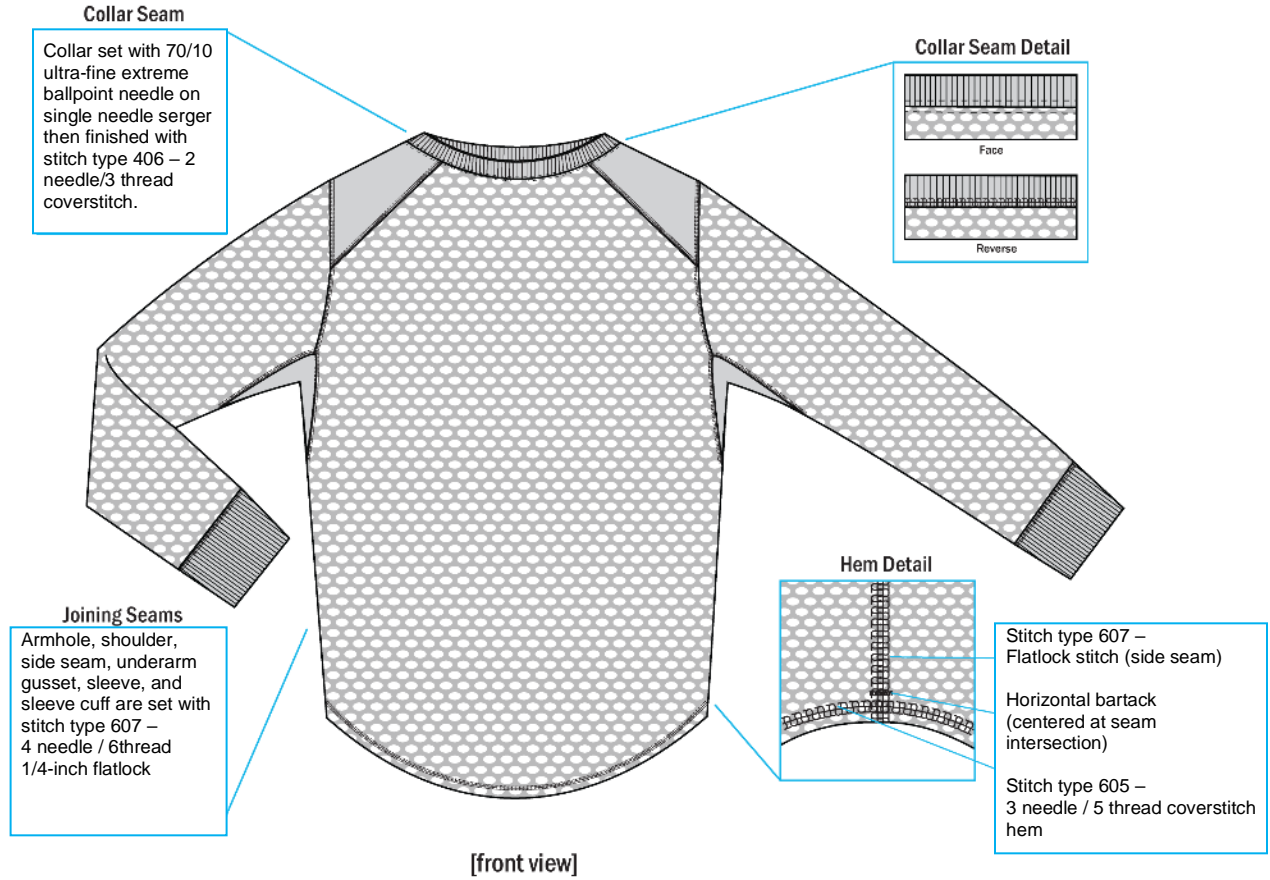


FIGURE 1. Undershirt, front view.

FOR PROPOSAL USE ONLY

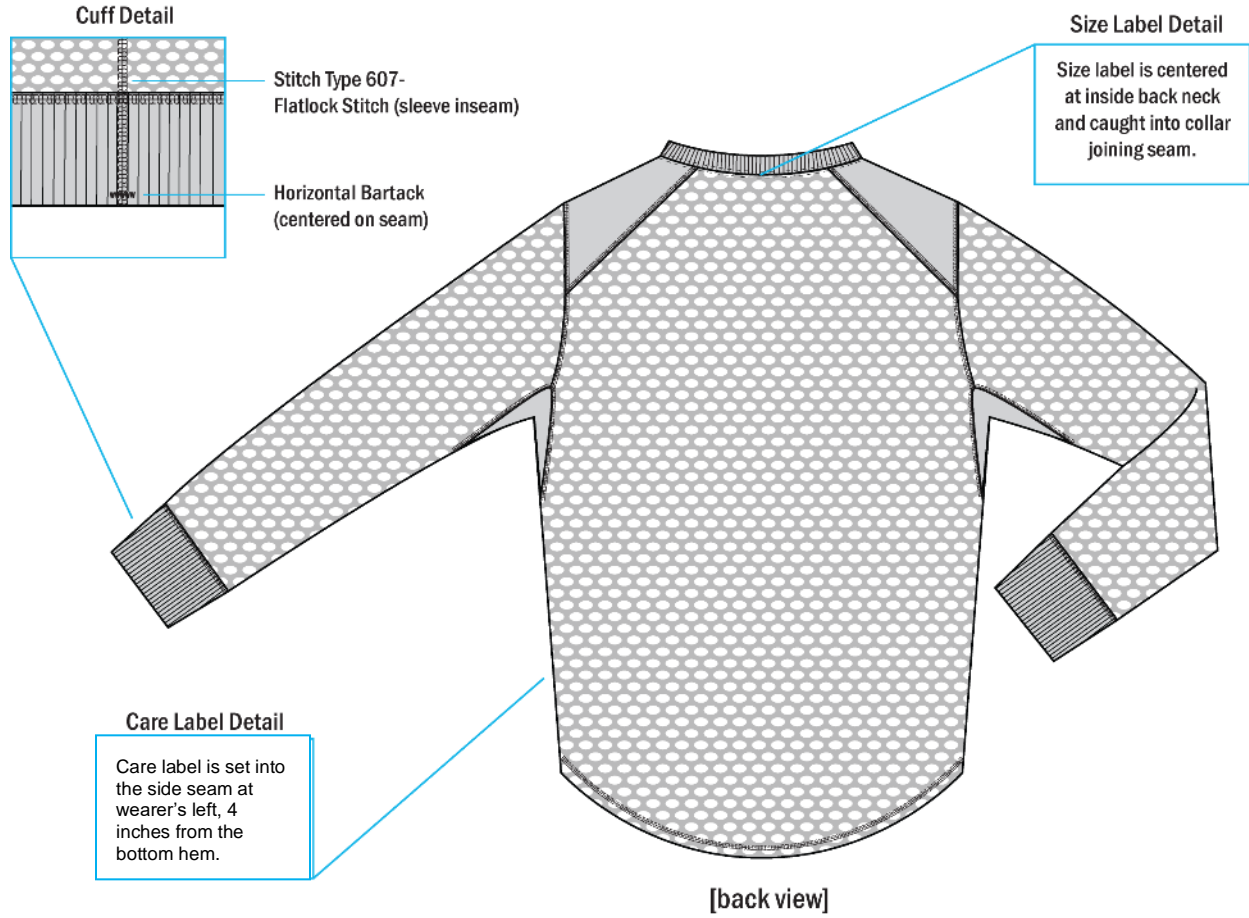


FIGURE 2. Undershirt, back view.

FOR PROPOSAL USE

CONCLUDING MATERIAL

Custodians:

Army – GL
Navy – MC
Air Force – 11

Preparing activity:

Navy – MC
(Project 8415-2022-040)

Review activities:

Army – AV, CR, MI
Navy – AS, CG1, NU
Air Force – 03, 70
DLA – CT

Civil agency:

GSA – FAS

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 the ASSIST Online database at <https://assist.dla.mil>.