INCH-POUND

MIL-DTL-MC032
DRAFT

DETAIL SPECIFICATION

DRAWERS, 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 drawers baselayer for use in cold weather.

1.2 Classification. The mesh drawers are 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 drawers 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-W-5664 - Webbing, Textile, Elastic

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.

AMSC N/A FSC 8415

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

MIL-DTL-MC034 - Cloth, Mesh Knit

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 ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

AATCC TM8 - Colorfastness to Crocking: Crockmeter Method

AATCC TM16.3 - Test Method for Colorfastness to Light: Xenon-Arc

AATCC TM20A - Test Method for Fiber Analysis: Quantitative

AATCC TM61 - Test Method for Colorfastness to Laundering: Accelerated

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

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 D76/D76M - Standard Specification for Tensile Testing Machines for Textiles

ASTM D1776/D1776M - Standard Practice for Conditioning and Testing Textiles

ASTM D3774 - Standard Test Method for Width of Textile Fabric

ASTM D3776/D3776M - Standard Test Methods for Mass Per Unit Area (Weight) of Fabric

ASTM D6193 - Standard Practice for Stitches and Seams

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

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD)

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

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

(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.

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 drawers shall be constructed with a fully open net-like mesh knit material and have jersey knit inner thigh gussets, jersey knit reinforced knee patches, a tapered two-ply functional fly, an elastic waistband with an integrated draw-cord, and rib knit ankle cuffs as shown on figures 1 and 2.

3.4 Materials and components.

3.4.1 Basic materials.

3.4.1.1 Leg panel (mesh knit). The basic material for the leg panels of the drawers 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 I, class 1 of MIL-DTL-MC034 when tested as specified in 4.5.1.

3.4.1.2 Front/back fly, reinforcement knee patches, and thigh gussets (jersey knit). The basic material for the front/back fly panel, reinforcement knee patches, and thigh gussets shall be a single jersey knit in Coyote 498 (color chip 20150 of AMS-STD-595) (see 6.7) and conform to the type I, class 1 of MIL-DTL-MC035 when tested as specified in 4.5.1.

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

3.4.2 Components.

3.4.2.1 Waistband. The waistband shall be an elastic webbing with a functional integrated draw-cord. The elastic webbing shall be a knit constructed from 1/150 (±5 denier) semi dull (SD) textured polyester and a 34-gauge extruded latex elastic element. The braid for the tubular draw-cord shall be a knit constructed from 1/150 SD textured polyester in a continuous solid construction. The braided draw-cord shall be embedded in the elastic webbing. The color of the elastic webbing and braided draw-cord shall be Coyote 498 (color chip 20150 of AMS-STD-595) (see 6.7). The elastic webbing with the functional integrated draw-cord shall conform to the requirements listed in table I when tested as specified in 4.5.1.

TABLE I. Waistband requirements.

Characteristic	Requirement
Fiber content	30% to 40% elastic 60% to 70% polyester or nylon
Width (inch)	1-1/4±1⁄16
Weight (ounces per linear yard) (minimum)	0.50 to 0.60
Elastic ends (minimum)	16
Picks per inch (minimum)	40
Warp ends (minimum)	16
Load (pounds) to produce 50% elongation	0.8 to 4.5
Drift (percentage) (maximum)	20
Colorfastness, rating (minimum)	
Laundering (3 cycles)	4.0
Crocking	
Wet	4.0
Dry	4.0
Light after 40 AATCC Fading Units (AFU) or 170 kJ/(m^2nm)[1/] at 420 nm	4.0
Draw-cord: fiber identification	Semi-dull textured polyester
Draw-cord: diameter (inch)	1/4±1/32

FOOTNOTE:

1/ Kilojoules (kJ) per square meter per nanometer (m^2nm).

3.4.2.2 Thread. The threads used in the construction of the drawers 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 Coyote 498 (color chip 20150 of AMS-STD-595) (see 6.7).

3.4.2.3 Labels. The drawers labels shall conform to the requirements of table II 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 II. Dimensional tolerance is ±1/8 inch. Stitching on labels shall not obscure the printing.

TABLE II. Labels.

Label features	Requirements
1. Combination size and identification label	
a. Physical requirements	(1) Heat transfer manufactured by ITW Graphics, Bell Label, or equal
b. Inscription	(1) Be black and contain the following information and be in the configuration below:
	UNITED STATES MARINE CORPS DRAWERS BASELAYER CONTRACT NO: NSN: FIBER CONTENT: CONTRACTOR'S NAME: SIZE:
c. Location/attachment	(1) Adhered to the inside to the left (as worn) of the seat seam 3/4±1/4 inch below the elastic waistband seam join
	(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 waistband seam join
	(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 black and a medium to high density
b. Barcode element	(1) 13-digit NSN and the appropriate 12-digit UPC assigned to the NSN by the Government
	(2) The initials "UPC" shall appear beneath the code
c. Location/attachment	(1) Each pair of drawers 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.

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 III.

TABLE III. Pattern parts.

Material	Requirement	Piece part	Cut parts
Mesh basic material (leg panels)	3.4.1.1	LEG	2
Jersey basic material (front/back fly, reinforcement knee patches, and thigh gussets)	3.4.1.2	KNEE PATCH	2
		FLY	2
		THIGH GUSSET	2
Rib knit basic material (cuffs)	3.4.1.3	CUFF	2

3.7 Construction. End item construction and appearance shall conform to the requirements of table IV, table V, figure 1, 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 IV. 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 V.
b. Appearance	(1) Consistent, exhibiting a uniform appearance.

TABLE IV. Construction requirements – Continued.

Construction feature	Requirement
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 V and VI.
4. Waistband	(1) The opening for the draw-cord shall be aligned at the center front.
5. Reinforcement knee patches	(1) Reinforcement knee patches shall be on the inside of the garment next to skin and shall be smooth and flat.

TABLE V. Seams and stitches.

Seaming area and operations	Stitch type	Seam type
Hem edges of fly opening	605	EFa-2
Set front/back fly of drawers	607	FSa-1
Overlap and secure waistband webbing at center back	304	FSe-1
Set waistband webbing	403	LSA-2
Fold cuff in half and join to leg bottom	605	FSa-1
Close inseams with cuffs and seat seam	607	FSa-1
Turn under seam tails at cuff ends and secure with 5/8-inch bartack	Bartack	N/A
Turn under seam tail at center back waist and secure with 5/8-inch bartack and center a second 5/8-inch bartack at the junction of the waist elastic and seat seam	Bartack	N/A
Place combination instruction/ID label to inside left of center back 3/4±1/4 inch below the waistband approximately 1 inch to the left of the seat seam	Bartack	N/A

TABLE VI. Bartacks.

Location	Length (inches)	Quantity (per item)
Bottom of cuff at inseam	5/8	2
Top of center back elastic waistband	5/8	1
Bottom of elastic waistband, centered over waistband and seat seams	5/8	1

3.8 Finished dimensions. The drawers shall conform to the measurements in table VII as defined in table VIII. All measurements shall be taken with the drawers laid on a flat, clean surface with all folds smooth, being careful not to stretch or distort the drawers. All measurements shall be taken from the front of the drawers unless otherwise noted (see table VII). Inseam lengths on the drawers shall not be uneven by more than 1/2 inch from the wearer's left to the wearer's right.

TABLE VII. Finished drawers measurements (inches).

Code	Point of measure	Tol.	XS	S	M	L	XL	XXL
A	Half waist	±1/2	10	12	14	16	18	20
B	Inseam	±1/2	27-1/8	27-5/8	28-1/8	28-5/8	29-1/8	29-5/8
C	Outseam	±1/2	37-1/8	38-1/8	39-1/8	40-1/8	41-1/8	42-1/8
D	Front rise	±1/2	11-1/2	12	12-1/2	13	13-1/2	14
E	Back rise	±1/2	14-5/8	15-1/8	15-5/8	16-1/8	16-5/8	17-1/8
F	Knee patch height	±1/4	9	9	9-1/8	9-1/4	9-3/8	9-3/8
G	Half cuff width	±1/4	4-1/2	4-3/4	5	5-1/4	5-1/2	5-3/4
H	Half cuff height	±1/4	3-1/8	3-1/8	3-1/8	3-1/8	3-1/8	3-1/8

TABLE VIII. Methods of measure.

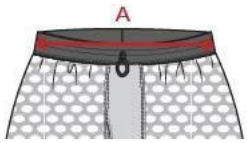
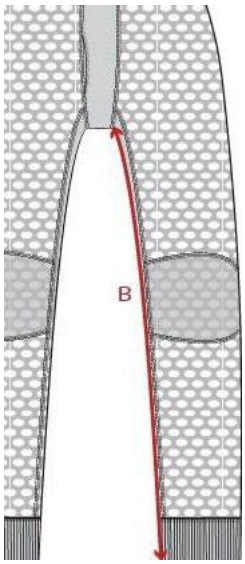
Code	Point of measure	Method	Guidance
A	Half waist	With the top edges of the waist aligned and elastic relaxed, measure along the center of the waistband from folded edge to folded edge. Note: Waist NOT aligned in figure.	
B	Inseam	From the fly joining seam, measure along the natural fold of the leg on the inner edge to the bottom of the cuff.	

TABLE VIII. Methods of measure – Continued.

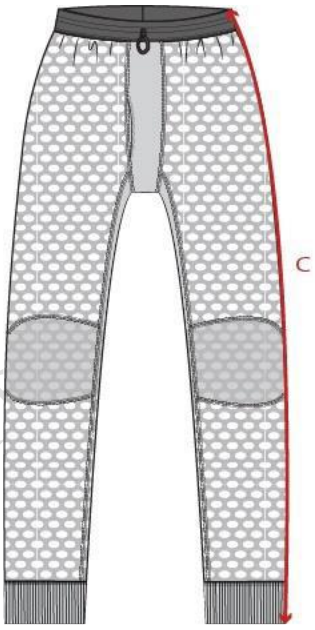
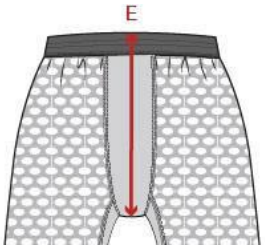
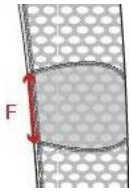
Code	Point of measure	Method	Guidance
C	Outseam	From the top edge of the elastic waist, measure along the natural fold of the leg on the outer edge to the bottom of the cuff.	
D	Front rise	From the top edge of the elastic waist at the center front, measure straight to the fly folded edge.	
E	Back rise	From the top edge of the elastic waist at the center back, measure straight to the fly folded edge.	
F	Knee patch height	Measure straight from the top seam to the bottom seam of the knee patch along the inseam edge.	

TABLE VIII. Methods of measure – Continued.

Code	Point of measure	Method	Guidance
G	Half cuff width	In a straight line, measure along the bottom of the cuff from folded edge to folded edge.	
H	Half cuff height	In a straight line, measure along the cuff-side edge from the leg joining seam to the bottom of the cuff.	

3.9 Toxicity. Unless otherwise specified in the contract or procurement documents (see 6.2), when tested as specified in 4.5.5, the finished cap shall not present a health hazard and shall show compatibility with prolonged, direct skin contact, 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 pair of drawers 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:

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, when required 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 unit of drawers. The lot size shall be expressed in units of drawers. 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 IX. 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 IX. 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 unit of drawers. The lot size shall be expressed in units of drawers. The presence of defects exceeding the AQL as defined in the procurement document (see 6.2) or failure of any testing 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 X unless otherwise excluded, amended, or modified in this document or applicable procurement documents (see 6.2).

TABLE X. Material and component verification.

Material/component	Requirement	Verification
Basic materials		
Leg panel (mesh)	3.4.1.1	MIL-DTL-MC034, type 1, class 1
Front/back fly, reinforcement knee patches, and thigh gussets (jersey knit)	3.4.1.2	MIL-DTL-MC035, type 1, class 1
Cuff (rib knit)	3.4.1.3	MIL-DTL-MC036, type 1, class 1
Waistband	3.4.2.1	Table XI
Thread	3.4.2.2	A-A-55217
Combination size and identification label	3.4.2.3	4.5.3
Care instruction label	3.4.2.3	MIL-DTL-32075, type VI, class 3
Barcode label	3.4.2.3	MIL-DTL-32075, type VI, class 17

TABLE XI. Waistband verification.

Characteristic	Requirement	Verification method
Fiber content	3.4.2.1	AATCC TM20A
Width (inch)	3.4.2.1	ASTM D3774
Weight (ounces per linear yard) (minimum)	3.4.2.1	ASTM D3776/D3776M
Elastic ends (minimum)	3.4.2.1	Visual count
Picks per inch (minimum)	3.4.2.1	Visual count
Warp ends (minimum)	3.4.2.1	Visual count
Load (pounds) to produce 50% elongation	3.4.2.1	4.5.1.1
Drift (percentage) (maximum)	3.4.2.1	MIL-W-5664
Colorfastness (minimum)		
Laundering (3 cycles)	3.4.2.1	AATCC TM61, test 2a
Crocking		
Wet	3.4.2.1	AATCC TM8
Dry	3.4.2.1	AATCC TM8
Light after 40 AFU or 170 kJ/(m^2nm) at 420 nm	3.4.2.1	AATCC TM16.3, option 3 (170 kJ)
Draw-cord fiber identification	3.4.2.1	AATCC TM20A
Draw-cord diameter (inch)	3.4.2.1	Visual/micrometer

4.5.1.1 Load to produce 50-percent elongation. Waistband elastic webbing samples shall be samples from garments or constructed to duplicate the configuration on the finished garment. Tensile properties shall be evaluated by conducting tensile tests utilizing equipment conforming to ASTM D76/D76M. Samples shall be conditioned conforming to ASTM D1776/D1776M. Specimens for the test shall be full-width at least 6 inches long and shall be marked with a 2-inch gauge length located so that when the specimen is inserted in the jaws of a testing machine, having jaws wider than the webbing, the gauge length is centrally located between the jaws. The initial distance between the jaws of the machine shall be 3 inches. The jaws shall separate at a rate of 12 inches per minute under no load. The load required to produce 50-percent elongation of the 2-inch gauge length shall be noted.

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 drawers 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 drawers 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 XII. The inspection conditions and the AQLs shall be as specified in the contract (see 6.2).

TABLE XII. 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
	4	Waistband color not as specified		206
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		207
	2	Seams irregular or open seam less than 1/8 inch , raw edge affecting appearance or serviceability		208
	3	Open seam over 1/8 inch	105	
	4	Seam, seam allowance, or stitch type not as specified, seam allowances under specification		209
	5	Loose or tight stitch tension, broken or missing thread or stitch, or incorrect gauge used to stitch type		210
	6	Thread breaks or ends of stitching (if not caught in other seams or stitching) not securely backtacked		211
	7	Gauge of stitching (edge or top stitching) irregular (i.e., unevenly gauged or corresponding stitching not uniformly gauged), affecting appearance		212
	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)		213
	9	Raw edges more than 1/8 inch but not more than 1/4 inch		214
	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		215
Bartacks	1	Bartacks missing, insecure, misplaced, not specified size, not serving intended purpose, or stitches loose or broken		216

TABLE XII. Defects – Continued.

Part	No.	Defect	Classification	
			Major	Minor
Cleanliness	1	Spot or stain		217
	2	Odor		218
	3	Thread ends not trimmed throughout exterior of garment		219
	4	Seven or more thread ends on the interior of the garment measuring more than 1/2 inch	106	
Waistband with integrated draw-cord	1	Any draw-cord caught in tunnel or stitching restricting use of draw-cord		220
	2	Any draw-cord omitted or not integrated into the waistband	107	
	3	Any draw-cord end not heat seared, knotted, or sealed		221
	4	Waistband with integrated draw-cord not functional, missing, or incorrectly placed	108	
	5	Stitching varying more than 1/8 inch		222
	6	Waistband fullness not evenly distributed		223
	7	Any waistband with integrated draw-cord insufficient in length or does not function	109	
Labels	1	Label omitted; incorrect type, size, or configuration; illegible; inaccurate; improperly attached as specified; or peeling	110	
	2	Barcodes omitted or not readable by scanner; human readable interpretation (HRI) omitted or illegible		224
	3	Barcode not visible on folded, packaged item		225
	4	Barcode attachment causes damage to the item		226
Packaging	1	Any pair of drawers not packaged in accordance with the contract or purchase order		227
	2	Any additional items included within the purchase order not part of the solicitation		228

4.5.4 Dimensional examination. The drawers shall be examined for conformance to the dimensions specified in table VII as defined in table VIII. 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 drawers are 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. When first article is 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. Toxicity testing requirements (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 XIII. Table XIII is not intended to be a comprehensive list of all NSNs associated with this specification.

TABLE XIII. NSNs.

NSN	Size
8415016969409	Medium

6.5 Fit information. The drawers should fit close to the body, offering adequate wearing and functional ease without appearing baggy or loose. The rib knit cuff should sit approximately above the ankle bone without restriction. The drawers waistband should sit approximately at omphalion.

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

MCWBL

No drip

No melt

Thermal

Underlayer

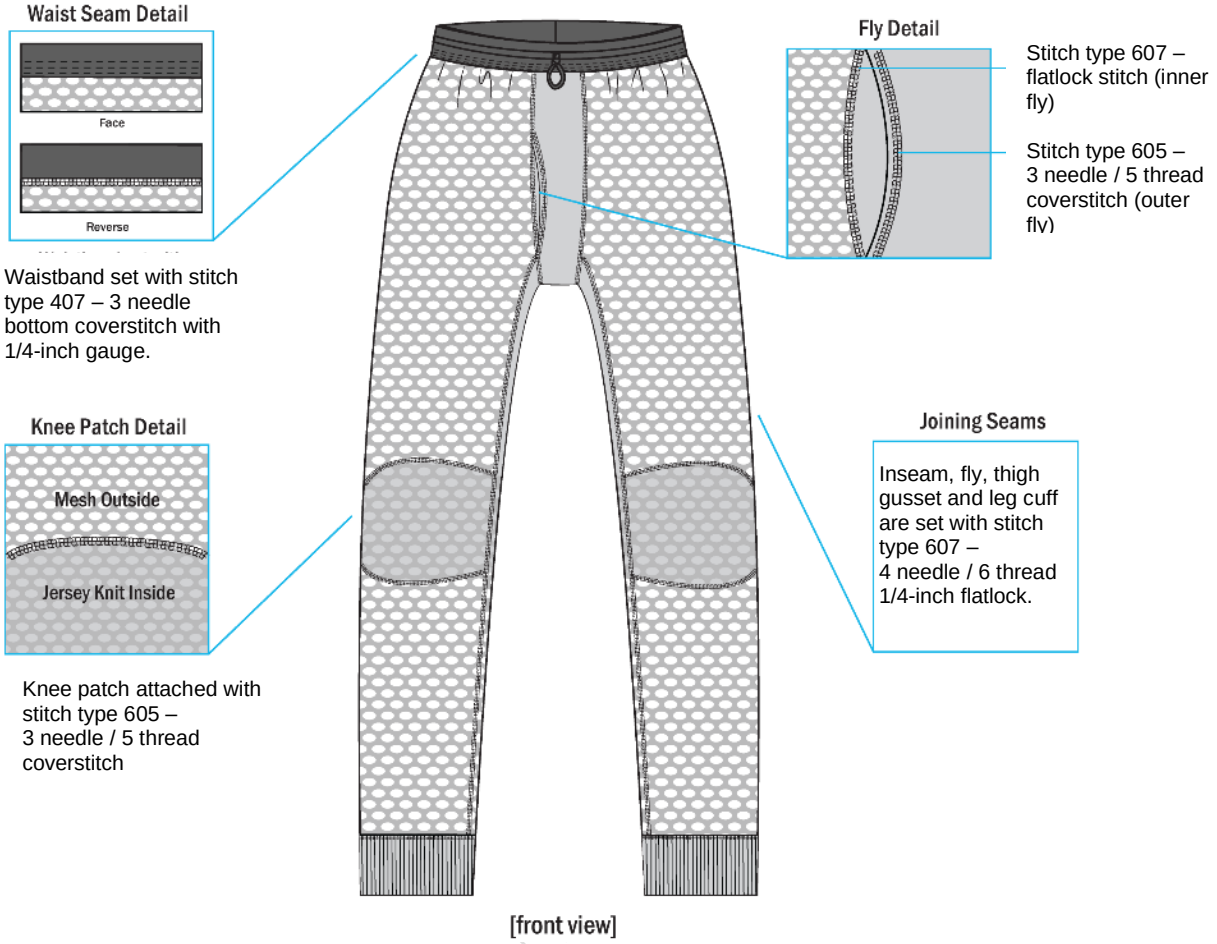


FIGURE 1. Drawers, front view.

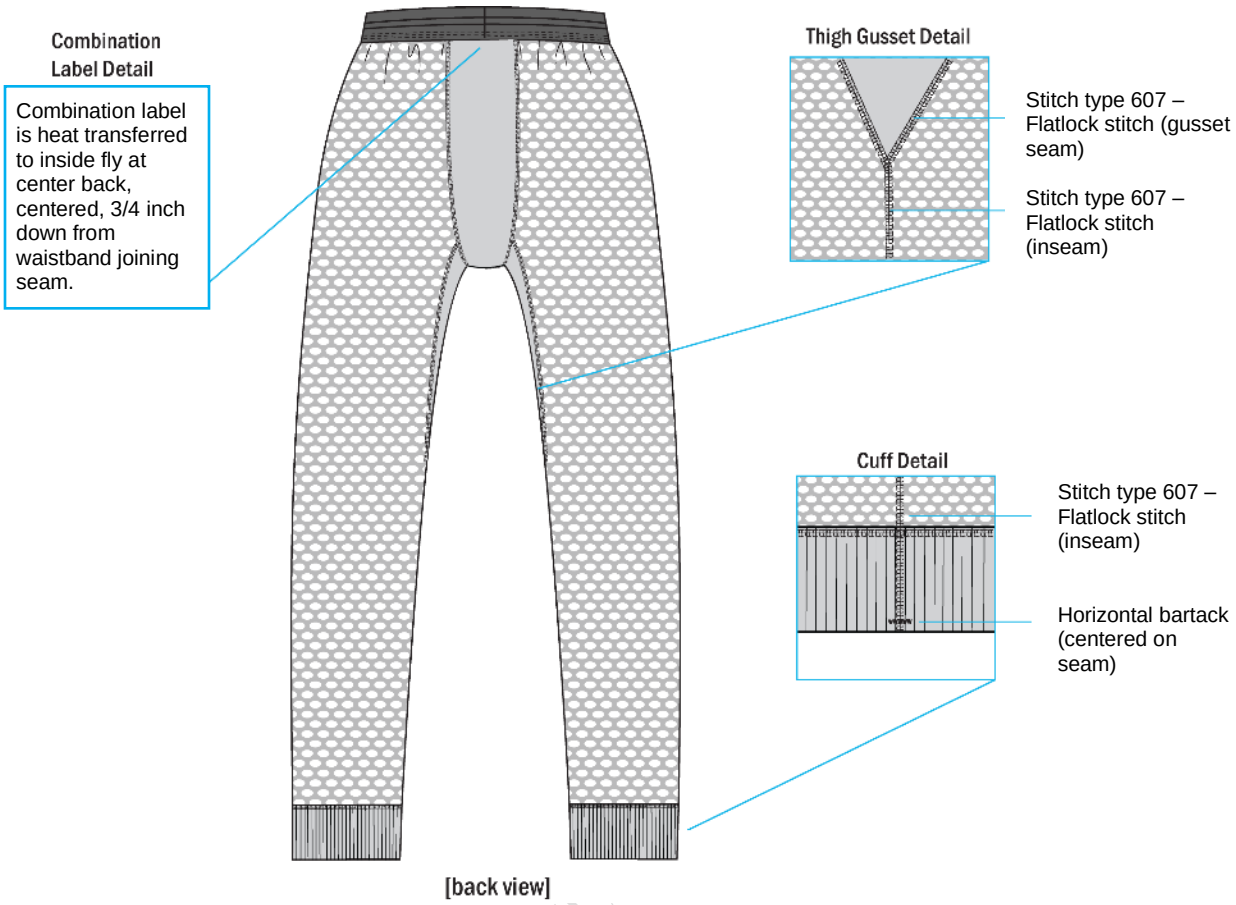


FIGURE 2. Drawers, back view.

CONCLUDING MATERIAL

Custodians:
Army – GL
Navy – MC
Air Force – 11

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

Civil agency:
GSA – FAS

Preparing activity:
Navy − MC
(Project 8415-2022-039)

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.