INCH-POUND

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SUPERSEDING
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MILITARY SPECIFICATION

# MITTEN SHELLS, SNOW CAMOUFLAGE, COTTON, WHITE, TWO FINGER

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

## 1. SCOPE

1.1 Scope. This specification covers one type and size of white mitten shells.

## 2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 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 listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

| | |
|---|---|
| A-A-203 | - Paper, Kraft, Untreated |
| A-A-50199 | - Thread, Polyester Core, Cotton- or Polyester-Covered |
| JJ-W-155 | - Webbing, Textile, (Cotton, Elastic) |
| DDD-L-20 | - Label: For Clothing, Equipage, and Tentage, (General Use) |
| PPP-B-636 | - Boxes, Shipping, Fiberboard |

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 8415

MILITARY

MIL-B-543 - Buckles, Tongueless and Web Strap
MIL-T-3530 - Thread and Twine: Mildew Resistant or Water Repellent Treated
MIL-C-3924 - Cloth, Oxford, Cotton Warp and Nylon Filling, Quarpel Treated
MIL-T-43566 - Tape, Textile, Cotton or Polyester, General Purpose, Natural or in Colors
MIL-L-35078 - Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage; General Specification For

STANDARDS

FEDERAL

FED-STD-595 - Colors Used in Government Procurement
FED-STD-751 - Stitches, Seams, and Stitchings

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129 - Marking for Shipment and Storage
MIL-STD-147 - Palletized Unit Loads
MIL-STD-731 - Quality of Wood Members for Containers and Pallets

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

THE COLOR ASSOCIATION OF THE UNITED STATES

Standard Color Card of America

Department of Defense Standard Color Card for Sewing Thread

(Color cards may be available from the Color Association of the United States, 343 Lexington Avenue, New York, NY 10016-0927. If color cards are not available from the Color Association, individual color samples may be obtained from the contracting activity or as directed by the contracting activity.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3951 - Standard Practice for Commercial Packaging

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187).

(Non-Government standards and other publications are normally available from organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence. 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 First article. When specified (see 6.2), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.3.

3.2 Samples. Samples, when furnished, are solely for guidance and information to the contractor (see 6.4). Variation from this specification may appear in the sample, in which case this specification shall govern.

3.3 Material. It is encouraged that recycled material be used when practical as long as it meets the requirements of this specification.

3.3.1 Cloth. The cloth for the mitten shells shall be oxford, cotton warp and nylon filling, quarpel treated, conforming to class 1, of MIL-C-3924.

3.3.2 Tape. The tape for the adjusting strap, release tab and buckle strap shall be 5/8 inch width, bleached white, type I, class 2 conforming to MIL-T-43566.

3.3.3 Elastic webbing. The cotton elastic webbing shall be 3/8 inch, unbleached conforming to JJ-W-155.

3.3.4 Thread. The thread for seaming and stitching shall be ticket No. 30, 2 or 3 ply, and ticket No. 50, 2 ply conforming to A-A-50199. The color shall be bleached white AH, C.A. 66050. The thread shall be water-repellent treated in accordance with type II, class 3 of MIL-T-3530.

3.3.5 Buckles. The buckles shall be tongueless, double bar, 5/8 inch size with lip, conforming to type II, style 3, class 3 of MIL-B-543 except that the color shall be a lusterless white conforming to shade No. 37875 of FED-STD-595.

3.3.6 Labels.

3.3.6.1 Identification and size label. Each mitten shell shall be marked with an identification label conforming to type III or IV, class 4 of DDD-L-20, except that the requirement for size is not applicable. The label shall withstand fastness to laundering as stated herein.

3.3.6.2 Instruction slip. A printed slip of thin paper, approximately 2 inches by 4 inches, and containing the following information, shall be inserted in each right-hand mitten shell:

INSTRUCTIONS - MITTEN SHELLS, SNOW CAMOUFLAGE, COTTON, WHITE, TWO FINGER

For camouflage use only.
Not a substitute for outer mitten.
Keep mitten shell clean. When not in use, keep in a clean, dry place.
Turn inside out for carrying.
Trigger finger may be extended through opening when needed.
This mitten shell is washable.

3.4 Design. The mitten shells shall be as shown on figure 1, having an adjustable strap on the back across the wrist, and an elastic webbing in the hem of the gauntlet portion. The mitten shells shall have an opening for insertion of the neck webbing loop as well as an opening for the trigger finger on the thumb side in the side seam.

3.5 Figure. Figure 1 is furnished for information purposes only. If there are any inconsistencies between the specification and the figure, the written specification shall govern.

3.6 Patterns. Standard patterns will be furnished by the Government. The standard patterns shall not be altered in any way and are to be used as a guide for cutting the contractor's working patterns. The working patterns shall be identical to the standard patterns.

3.6.1 Pattern parts. The pattern parts for the mitten shells shall be as listed in table I.

TABLE I. Pattern parts

| Pattern nomenclature | Cut parts per mitten shell |
|---|---|
| Palm (includes front of thumb) | 1 |
| Back of thumb | 1 |
| Gauntlet front | 1 |
| Back (includes back of gauntlet) | 1 |

3.7 Construction.

3.7.1 Stitches, seams, and stitching. Stitches, seams, and stitching types specified in table II shall conform to FED-STD-751. Whenever two or more methods, seams, or stitches are given for the same part of an operation, any one of them may be used. The use of a trimmer attachment on sewing machines is prohibited. The minimum and maximum number of stitches per inch shall be as specified in table II.

3.7.1.1 Type 301 stitching. Unless otherwise specified, ends of type 301 stitching shall be backstitched or overstitched 1/2 inch minimum, except where ends are turned under in a hem or held down by other stitching. Thread tension shall be maintained so there will be no loose stitching resulting in a loose bobbin or top thread or no excessively tight stitching resulting in puckering of the materials sewn. The lock shall be embedded in the materials sewn.

3.7.1.2 Type 401 stitching. Thread tension shall be maintained so that there will be no loose stitching. Both ends of all seams or stitching produced with 401 stitch type, when not turned under in a hem or held down by other stitching, shall have a 1/2 to 3/4 inch chain extending beyond each end. The looper thread (underthread) shall be on the inside of the mitten shell.

3.7.1.3 Repairs of type 301 stitching. Repairs of type 301 stitching shall be as follows:

a. When thread breaks or bobbin run-outs occur during sewing, the stitching shall be repaired by restarting the stitching a minimum of 1/2 inch back of the end of the stitching.

b. Thread breaks or two or more consecutive skipped or run-off stitches noted during inspection of the item (in-process or end item) shall be repaired by overstitching. The stitching shall start a minimum of 1/2 inch back of the defective area, continue over the defective area, and continue a minimum of 1/2 inch beyond the defective area onto the existing stitching. Loose or tight stitching shall be repaired by removing the defective stitching without damaging the material and restitching in the required manner. 1/

1/ When making the above repairs, the ends of the stitching are not required to be backstitched.

3.7.1.4 Repairs of type 401 stitching. All repairs shall be in accordance with 3.7.1.3a and 3.7.1.3b.

3.8 Manufacturing operations requirements. The mitten shells shall be made in accordance with the operation requirements specified in table II. The contractor is not required to follow the exact sequence of operations listed, unless otherwise specified. Any additional basting or holding stitches used to facilitate manufacture are permissible, provided the thread does not show on the finished mitten shell.

| NO. | Table II. MANUFACTURING OPERATIONS REQUIREMENTS | STITCH TYPE | SEAM AND STITCHING TYPE | STITCHES PER INCH | THREAD | | |
|---|---|---|---|---|---|---|---|
| | | | | | NEEDLE | BOBBIN/ LOOPER | COVER |
| 1. | Cutting.<br><br>The mitten shells shall be cut in the direction of the warp, in accordance with patterns which show size and shape, position of thumb and openings, and notches for assembling the component parts. All component parts of the mitten shells shall be cut from one piece of the material. | | | | | | |
| 2. | Replacement of defective or damaged parts.<br><br>During the spreading, cutting and manufacturing process, components having material defects or damages that are classified as defects in 4.4.2 shall be removed from production and replaced with non-defective and properly matched components. | | | | | | |
| 3. | Marking.<br><br>Mark, ticket or bundle all components, except those cut from ends, to insure a uniform shade and size throughout the mitten shell. Any method of marking may be used except:<br><br>a. Corrosive metal fastening devices.<br>b. Sew-on type tickets.<br>c. Adhesive type tickets which leave traces of paper or adhesive on the material upon removal of the tickets. | | | | | | |

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Table II. (cont'd)

| NO. | MANUFACTURING OPERATIONS REQUIREMENTS | STITCH TYPE | SEAM AND STITCHING TYPE | STITCHES PER INCH | THREAD | | |
|---|---|---|---|---|---|---|---|
| | | | | | NEEDLE | BOBBIN/ LOOPER | COVER |
| 4. | Join back of thumb to front of thumb and palm. | | | | | | |
| | a. Inseam back of thumb to front of thumb and palm with 1/4 ± 1/16 inch seam. | 301 | LSq-2 | 10 to 14 | 30-3 | 30-3 | |
| | | or 401 | LSq-2 | 10 to 14 | 30-3 | 50-2 or 50-3 | |
| | b. Turn and raise stitch 1/16 ± 1/32 inch from turned edge. | 301 | LSq-2 | 10 to 14 | 30-3 | 30-3 | |
| 5. | Inseam front of gauntlet to palm and thumb with 1/2 ± 1/16 inch seam, turn and raise stitch 1/4 to 3/8 inch from turned edge. | 301 | LSq-2 | 10 to 14 | 30-3 | 30-3 | |
| | | or 401 | LSq-2 | 10 to 14 | 30-3 | 50-2 or 50 3 | |
| 6. | Turn raw edges of openings for trigger finger and neck webbing loop, indicated by notches on pattern, to the underside of the palm and underside of back of mittens 1/4 ± 1/16 inch. Stitch 1/16 ± 1/32 inch from turned edge forming hem. | 301 | EFa-1 | 10 to 14 | 30-3 | 30-3 | |
| | | or 401 | EFa-1 | 10 to 14 | 30-3 | 50-2 or 50-3 | |
| 7. | Wrist strap. | | | | | | |
| | a. Wrist strap shall consist of adjusting strap, a buckle strap, and a release tab. | | | | | | |
| | b. Adjusting strap. Thread adjusting strap through buckle (around first bar at lip end), fold end of strap back upon itself 2 ± 1/8 inches to form the pull and turn raw edge of strap under 5/16 ± 1/16 inch, box stitch down with 3/16 to 1/4 inch box centered between edges of strap. As an alternate | Box or bartack | EFb-1 | 10 to 14 | 30-3 | 30-3 | |
| | | | EFb-1 | 10 to 14 28 per bartack | 30-3 | 50-2 or 50-3 | |



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Table II. (cont'd)

| NO. | MANUFACTURING OPERATIONS REQUIREMENTS | STITCH TYPE | SEAM AND STITCHING TYPE | STITCHES PER INCH | THREAD | | |
|---|---|---|---|---|---|---|---|
| | | | | | NEEDLE | BOBBIN/ LOOPER | COVER |
| 7. | Wrist strap. (cont'd) | | | | | | |
| | end of strap may be stitched down with a 1/2 inch long bartack centered between edges of strap. The bartack shall be perpendicular to length of strap. The strap shall finish 9 ± 1/2 inches long. | | | | | | |
| | c. Buckle strap. The buckle strap shall consist of a double piece of 5/8 inch tape. Thread tape piece around second buckle bar from lip end and align raw ends of tape. Finished dimensions of buckle strap shall be 1-3/4 ± 1/8 inches. | | | | | | |
| | d. Release tab. Thread release tab through buckle around lip end. Fold one end over the other end of tab for a distance of 3/8 to 7/16 inch. Join ends with a 3/16 to 1/4 inch box stitch centered between edges of tab. As an alternate join ends with 1/2 inch bartack centered between edges of tab. The bartack shall be perpendicular to the length of tab. The finished tab shall be 1 ± 1/8 inches long. | Box<br>or<br>bartack | LSaf-2<br><br>LSaf-2 | 10 to 14<br><br>10 to 14<br>28 per bartack | 30-3<br><br>30-3 | 30-3<br><br>50-2<br>or<br>50-3 | |
| 8. | Attach ends of wrist strap. | | | | | | |
| | Seam ends of adjusting strap and buckle strap to side seam allowance on the outside of palm with edge of straps nearest mitten hand opening in alignment with turned edge of gauntlet and palm joining seam (see figure 1). The buckle strap shall be attached to thumb side. | 301<br>or<br>401 | SSa-1<br><br>SSa-1 | 10 to 14<br><br>10 to 14 | 30-3<br><br>30-3 | 30-3<br><br>50-2<br>or<br>50-3 | |

Table II. (cont'd)

| NO. | MANUFACTURING OPERATIONS REQUIREMENTS | STITCH TYPE | SEAM AND STITCHING TYPE | STITCHES PER INCH | THREAD | | |
|---|---|---|---|---|---|---|---|
| | | | | | NEEDLE | BOBBIN/ LOOPER | COVER |
| 9. | Join back to front. | | | | | | |
| | a. Seam back of mitten shells to front wrong side out, with 1/4 ± 1/16 inch seam, turn and work out corners and edges leaving seam open at trigger finger opening and neck loop opening. | 301 or 401 | SSe-2(a) | 10 to 14 | 30-3 | 30-3 or 50-2 or 50-3 | |
| | b. After turning, make sure wrist strap is positioned as shown on figure 1, then raise stitch 1/16 ± 1/32 inch from turned edge, catching the ends of the adjusting strap and buckle strap in the stitching. The stitching shall begin at top of gauntlet on one side of mitten shell and continue around outer edge of palm to top of gauntlet on other side of mitten shell leaving seam open at trigger finger and neck loop openings. | 301 | SSe-2(b) | 10 to 14 | 30-3 | 30-3 | |
| 10. | Hemming gauntlet (insert elastic webbing). | | | | | | |
| | a. Overlap ends of elastic webbing a minimum of 3/8 inch, and tack ends together. The elastic webbing shall be sewn in such a manner that the dimensions specified in table III for F and G are complied with. | 301 or 401 | LSa-2 | 10 to 14 | 30-3 | 30-3 or 50-2 or 50-3 | |
| | b. Fold top of gauntlet in and over elastic webbing with raw edge turned in and single stitch 1/16 to 1/8 inch from turned edge. The finished hem shall measure 3/4 ± 1/8 inch wide. | 301 or 401 | EFb-1 | 10 to 14 | 30-3 | 30-3 or 50-2 or 50-3 | |
| | c. The elastic webbing shall not be caught in stitching. | | | | | | |



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| NO. | Table II. (cont'd) MANUFACTURING OPERATIONS REQUIREMENTS | STITCH TYPE | SEAM AND STITCHING TYPE | STITCHES PER INCH | THREAD | | |
|---|---|---|---|---|---|---|---|
| | | | | | NEEDLE | BOBBIN/ LOOPER | COVER |
| 11. | Marking.<br><br>The identification marking shall be applied to the inside of the back of mitten shells at center, 2 ± 1/8 inches down from bottom of hem (see 3.3.6.1). | | | | | | |
| 12. | Cleaning and pairing.<br><br>a. Thread ends shall be trimmed to a length of not more than 1/8 inch and all spots, stains and loose threads removed.<br><br>b. The mitten shells shall be paired and tacked together with thread just below hem stitching. Tacking shall be done with not less than two nor more than three stitches using a cord thread which will permit the mitten shells to be separated without tearing the material. | | | | | | |

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3.9 Measurements. The finished dimensions, taken at points defined on figure 1, shall conform to measurements for size as specified in table III.

TABLE III. Measurements

| Mitten part | Point of measurement | Dimension (inches) | Tolerance (inches) |
|---|---|---|---|
| Length of hand (gauntlet seam to fingertip) | A | 10 | ± 1/4 |
| Gauntlet length | B | 7-3/4 | ± 1/4 |
| Width, back of mitten hand | C | 7-3/8 | ± 1/4 |
| Thumb length (full) | D | 7-5/8 | ± 1/4 |
| Thumb width | E | 4 | ± 1/4 |
| Gauntlet cuff (at hem) | F | 6 | ± 1/4 |
| Gauntlet cuff (extended) | G 1/ | 11-1/4 | ± 1/4 |
| Hand width (at gauntlet seam) | H | 7-3/4 | ± 1/4 |
| Face thumb (fold to tip) | J | 3 | ± 1/4 |
| Trigger finger opening | K | 2 | ± 1/4 |
| Neck webbing loop opening | L | 1 | ± 1/4 |

1/ Measurement G shall be taken when the top of the gauntlet is stretched manually to its maximum limit.

3.10 Workmanship. The finished mitten shells shall conform to the quality of product established by this specification and the occurrence of defects shall not exceed the applicable acceptable quality levels.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this specification where such inspections are deemed necessary to ensure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies conform to all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for ensuring that all specified dimensions have been met. When dimensions cannot be examined on the end item, inspection shall be made at any point, or at all points in the manufacturing process necessary to ensure compliance with all dimensional requirements.

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

a. First article inspection (see 4.3).
b. Quality conformance inspection (see 4.4).

4.3 First article inspection. When a first article is required (see 3.1 and 6.2), it shall be examined for the defects specified in 4.4.2 and 4.4.3.

4.4 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.4.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified or qualified in this specification or applicable purchase document.

4.4.2 End item visual examination. The end items shall be examined for the defects listed in table IV. The lot size shall be expressed in units of mitten shells. The sample unit shall be one mitten shell, and the selection shall be by pairs. The inspection level shall be II, and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5 for major defects and 10.0 total (major and minor combined) defects.

TABLE IV. End item visual defects

| Examine | Defect | Classification Major | Minor |
|---|---|---|---|
| Cutting | Any component part not cut in conformance with directional lines on pattern, or not cut in accordance with document requirements | 101 | |
| Pairing | Not tacked together | | 201 |
| Material defects and workmanship damages | Any hole, cut, tear, burn or smash | 102 | |
| | Needle chews | 103 | |
| | Shade bar, loose slub or mend | | 202 |
| Cleanness | Any spot or stain | | 203 |
| | Thread ends not trimmed as specified or loose thread ends (to be scored only where conditions exist in major portion of mitten shell) | | 204 |
| Shaded parts | Any shaded part | | 205 |
| Components and assembly | Any component part or required operation omitted (unless otherwise classified) | 104 | |
| | Any operation not performed as specified (unless otherwise classified herein) | | 206 |
| Seams and stitching | Seams puckered, twisted or pleated affecting appearance (unless otherwise classified herein) | | 207 |
| | Part of mitten shell caught in unrelated operation or stitching | 105 | |
| | Ends of seam or stitching (stitch type 301) when not caught in other seams or stitching, backstitched or overstitched less than 1/2 inch | | 208 |
| | Ends of seam produced with 401 stitch type when not caught in other seam or stitching, having chain extend less than 1/2 inch or more than 3/4 inch beyond each end | | 209 |
| | Looper thread of 401 stitch type on outside of mitten | | 210 |

TABLE IV. End item visual defects (cont'd)

| Examine | Defect | Classification Major | Classification Minor |
|---|---|---|---|
| Seams and stitching (cont'd) | Ends of seam produced with 401 stitch type when not caught in other seam or stitching, not having chain extend beyond each end | 106 | |
| | Loose stitch tension resulting in a loosely secured seam | 107 | |
| | Tight stitch tension resulting in breaking of stitches when normal pull is applied (Score in accordance with "open seam" classification) | | |
| | NOTE: Puckering is evidence of tight tension. When puckering is evident, seam shall be tested by exerting pull in lengthwise direction of seam or stitching. | | |
| | Gage of stitching, irregular, beyond range of width specified or varies more than 1/16 inch when no range is specified | | 211 |
| | Edge or raised stitching sewn too close to edge resulting in damage to material. | 108 | |
| | Any open seam: | | |
| | -in a single stitched seam | 109 | |
| | -in both rows of a double stitched seam | 110 | |
| | -in one row of a double stitched seam | | 212 |
| | -repaired but not repaired as specified | | 213 |
| | NOTE: A seam shall be classified as open when one or more stitches joining a seam are broken or when two or more consecutive skipped or run-off stitches occur. | | |
| | Raw edge: | | |
| | On outside - | | |
| | More than 1/4 inch but not more than 1 inch | | 214 |
| | More than 1 inch | 111 | |
| | On inside (on hem only) - | | |
| | More than 1/2 inch. | | 215 |

TABLE IV. End item visual defects (cont'd)

| Examine | | Defect | Classification Major | Minor |
|---|---|---|---|---|
| Seams and stitching (cont'd) | NOTE: | A raw edge is classified as such only when it occurs at places where the edge is required to be turned under and stitched. A raw edge not securely caught in stitching shall be classified as an open seam. | | |
| | | Wrong seam or stitch type | | 216 |
| | | Stitches per inch (to be scored only when the condition exists on major portion of seam): | | |
| | | Less than minimum specified: | | |
| | | -one or two stitches | | 217 |
| | | -three or more stitches | 112 | |
| | | More than maximum number of stitches specified | | 218 |
| Label | | Identification or instruction; -missing, illegible or incorrect | | 219 |
| | | Instruction label not inserted in right mitten shell | | 220 |
| | | Identification label misplaced | | 221 |
| Buckle | | Broken, damaged or malformed | 113 | |
| | | Any sharp burr or metal sliver | | 222 |
| | | Not finished as specified | 114 | |
| | | Any area of no coating | 115 | |
| | | Color not as specified | 116 | |
| Assembly detail: Opening (trigger-finger and neck loop) | | Any omitted | 117 | |
| Wrist straps | | Adjusting strap: | | |
| | | End of strap not securely caught in seamed edge of mitten shell | 118 | |
| | | Finished length of pull part less than 1-7/8 inches or more than 2-1/8 inches | | 223 |
| | | Finished length of strap less than 8-1/2 inches or more than 9-1/2 inches | | 224 |

TABLE IV. End item visual defects (cont'd)

| Examine | Defect | Classification Major | Minor |
|---|---|---|---|
| Wrist straps (cont'd) | Buckle strap: | | |
| | End of strap not securely caught in seamed edge of mitten shell | 119 | |
| | Finished length less than 1-5/8 inches or more than 1-7/8 inches | | 225 |
| | Release tab: | | |
| | Finished length less than 7/8 inch or more than 1-1/8 inches | | 226 |

4.4.3 End item dimensional examination. The mitten shells shall be examined for conformance to the dimensions specified in table III. Any dimension not within the specified tolerance shall be classified as a defect. The lot size shall be expressed in units of mitten shells. The sample unit shall be one mitten shell and the selection shall be by pairs. The sample size shall be S-2, and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

4.4.4 Packaging examination. The fully packaged end items shall be examined for the defects listed below. The lot size shall be expressed in units of shipping containers. The sample unit shall be one shipping container fully packaged. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

| Examine | Defect |
|---|---|
| Marking (exterior and interior) | Omitted; incorrect; illegible; of improper size, location, sequence, or method of application |
| Materials | Any component missing, damaged, or not as specified |
| Workmanship | Inadequate application of components, such as: incomplete sealing or closure of flap, improper taping, loose strapping or inadequate stapling<br>Bulged or distorted container |
| Content | Number of unit packs per container is more or less than required<br>Number of pairs of mitten shells per unit pack is more or less than required. 1/ |

1/ For this defect, two (2) unit packs shall be examined from each shipping container in the sample.

4.4.5 Palletization examination. The fully packaged and palletized end items shall be examined for the defects listed below. The lot size shall be expressed in units of palletized unit loads. The sample unit shall be one palletized unit load, fully packaged. The inspection level shall be S-1, and the AQL, expressed in terms of defects per hundred units, shall be 6.5.

| Examine | Defect |
|---|---|
| Finished dimensions | Length, width, or height exceeds specified maximum requirement |
| Palletization | Pallet pattern not as specified<br>Load not bonded as specified |
| Weight | Exceeds maximum load limits |
| Marking | Omitted; incorrect; illegible; of improper size, location, sequence, or method of application |

5. PACKAGING

5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A preservation. Mitten shells shall be laid flat in a stack of five pairs and the stack folded in half by bringing the fingertips up to the gauntlet cuff hem. Two folded stacks of five pairs each shall be placed one over the other, inverted and reversed end to end, with the gauntlets facing the outside of the bundle. Each bundle of 10 pairs, measuring approximately 8 by 8 inches, shall be cross-tied with cotton tape or twine to form a unit pack.

5.1.2 Commercial preservation. Mitten shells shall be preserved in accordance with ASTM D 3951.

5.2 Packing. Packing shall be level A, B or Commercial as specified (see 6.2).

5.2.1 Level A packing. One hundred and eighty pairs of mitten shells, preserved as specified in 5.1, shall be packed in a fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each fiberboard shipping container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Level A unit packs shall be packed flat three in length, two in width and three in depth within a shipping container. Inside dimensions of each shipping container shall approximate 24 inches in length, 16 inches in width and 15 inches in depth. Approximate dimensions are furnished as a guide only. Each container shall have the contents completely covered on the top and

bottom with a sheet of 30-pound minimum basis weight kraft paper conforming to A-A-203. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V and reinforced as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4. Boxes shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.2 Level B packing. One hundred and eighty pairs of mitten shells, preserved as specified in 5.1, shall be packed flat in a fiberboard shipping container conforming to style RSC-L, type CF, (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The inside of each fiberboard shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. Level A unit packs shall be packed flat three in length, two in width, and three in depth within a shipping container. Inside dimensions of each container shall approximate 24 inches in length, 16 inches in width and 15 inches in depth. Approximate dimensions are furnished as a guide only. Each container shall have the contents completely covered on the top and bottom with a sheet of 30-pound minimum basis weight kraft paper conforming to A-A-203. Each container shall be closed, in accordance with method II as specified in the appendix of the container specification, except that the inspection shall be in accordance with 4.4.4.

5.2.2.1 Weather-resistant fiberboard containers. When specified (see 6.2), the shipping container shall be grade V3c, V3s, or V4s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with method III as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.4.4.

5.2.3 Commercial packing. Mitten shells, preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.

5.3 Palletization. When specified (see 6.2), mitten shells packed as specified in 5.2.2 and 5.2.3 shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet types shall be type I (4-way entry), type IV or type V in accordance with MIL-STD-147. Pallets shall be fabricated from wood groups I, II, III or IV of MIL-STD-731. Each prepared load shall be bonded with straps in accordance with bonding means C and D or film bonding means F or G. Pallet pattern shall be number 3 in accordance with the appendix of MIL-STD-147.

5.4 Marking. In addition to any special marking required in the contract or purchase order unit packs, shipping containers, and palletized unit loads shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable.

## 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 white mitten shells are to be worn over arctic mittens and trigger-finger mittens for camouflage in snowy terrain.

6.2 Acquisition requirements. Acquisition documents must specify the following:

a. Title, number, and date of this specification.
b. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1.1 and 2.2).
c. When a first article is required (see 3.1, 4.3, and 6.3).
d. Levels of preservation and packing (see 5.1 and 5.2).
e. Type and class of unit load required (see 5.2.1).
f. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
g. When palletization is required (see 5.3).

6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of FAR 52.209. The first article shall be a preproduction sample. The contracting officer should specify the appropriate type of first article and the number of units to be furnished. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for selection, inspection, and approval of the first article.

6.4 Sample. For access to samples, address the contracting activity issuing the invitation for bids or request for proposal.

6.5 Subject term (key word) listing.

Cold
Handwear
Trigger

6.6 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:

Army - GL
Air Force - 99

Review activities:

Army - MD
DLA - CT

User activities:

Navy - MC
Air Force - 11, 45

Preparing activity:

Army - GL

(Project 8415-0766)

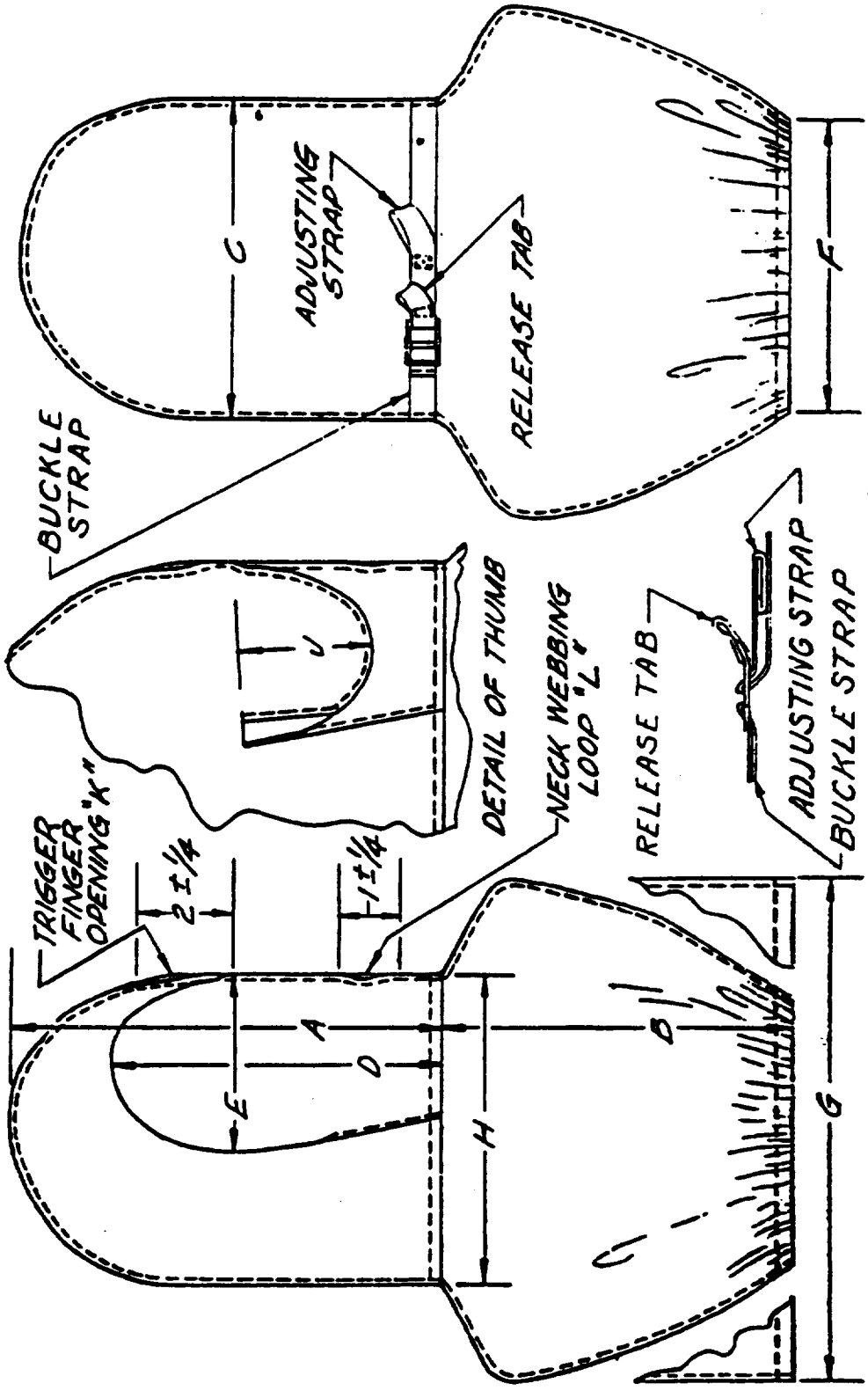


FIGURE 1. MITTEN SHELLS, SNOW CAMOUFLAGE, COTTON, WHITE, TWO FINGER



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# STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

## INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7
3. The preparing activity must provide a reply within 30 days from receipt of the form

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements

| I RECOMMEND A CHANGE: | 1 DOCUMENT NUMBER | 2 DOCUMENT DATE (YYMMDD) |
|---|---|---|
| | MIL-M-2418G | 1990 August 31 |

**3. DOCUMENT TITLE**
MITTEN SHELLS, SNOW CAMOUFLAGE, COTTON, WHITE, TWO FINGER

**4 NATURE OF CHANGE** *(Identify paragraph number and include proposed rewrite, if possible Attach extra sheets as needed)*

**5 REASON FOR RECOMMENDATION**

**6. SUBMITTER**

| a. NAME (Last, First, Middle Initial) | b. ORGANIZATION | |
|---|---|---|
| c. ADDRESS (Include Zip Code) | d. TELEPHONE (Include Area Code)<br>(1) Commercial<br>(2) AUTOVON (If applicable) | 7. DATE SUBMITTED (YYMMDD) |

**8 PREPARING ACTIVITY**

| a NAME | b TELEPHONE (Include Area Code) | |
|---|---|---|
| U S Army Natick RD&E Center | (1) Commercial<br>508-651-5221 | (2) AUTOVON<br>256-5221 |
| c ADDRESS (Include Zip Code)<br>Commander, U S Army Natick RD&E Center<br>ATTN STRNC-ES<br>Natick, MA 01760-5014 | IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT<br>Defense Quality and Standardization Office<br>5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041 3466<br>Telephone (703) 756-2340 AUTOVON 289-2340 | |

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