

MIL-M-11199H
 5 April 1988
 SUPERSEDING
 MIL-M-11199G
 12 November 1985

MILITARY SPECIFICATION

MITTEN, HEAT PROTECTIVE

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

1. SCOPE

1.1 Scope. This document covers one type and one size of ambidextrous mitten.

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 specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

SPECIFICATIONS

FEDERAL

A-A-203	- Paper, Kraft, Untreated
V-T-276	- Thread, Cotton
CCC-C-419	- Cloth, Duck, Cotton, Unbleached, Plied-Yarns Army and Numbered
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 of use in improving this document should be addressed to: U.S. Army Natick Research, Development, and Engineering Center, Natick, MA 01760-5014 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8415

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

MIL-M-11199H

MILITARY

- MIL-R-3390 - Rings, Dee
- MIL-L-35078 - Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage: General Specification For
- MIL-T-43566 - Tape, Textile, Cotton or Polyester, General Purpose, Natural or in Colors
- MIL-T-43636 - Thread, Aramid
- MIL-T-44100 - Thread, Para-Aramid, Spun, Intermediate Modulus

STANDARDS

FEDERAL

- FED-STD-191 - Textile Test Methods
- 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

(Copies of specifications, standards, and handbooks required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of the solicitation.

DRAWINGS

U.S. ARMY NATICK RESEARCH, DEVELOPMENT, AND ENGINEERING CENTER

- 2-1-23 - Mitten, Heat Protective (Assembly and Details)

(Copies of drawings, publications, and other Government documents required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity.)

MIL-M-11199H

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted shall be those listed in the issue of the DODISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issues of the nongovernment documents which are current on the date of the solicitation.

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

American Association of Textile Chemists and Colorists Technical Manual

Test Method 20 - Fiber Analysis; - Qualitative

(Copies should be obtained from the American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3951 - Standard Practice for Commercial Packaging

(Copies should be obtained from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1187.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which 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 specification and the references cited herein, the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Guide sample. Guide samples, when furnished, are solely for guidance and information (see 6.3). Variations from this document may appear in the sample in which case this document shall govern.

* 3.2 First article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.3, 6.2, and 6.4).

3.3 Materials (see 6.5).

* 3.3.1 Terry cloth, knitted. The outer layer of fabric for the mittens shall be of a knitted terry loop construction having a terry yarn face and a backing yarn. The yarn shall be no coarser than 6/1 nor finer than 20/2 (cotton count) yarn size. Two ends of the yarn shall be used in knitting the

MIL-M-11199H

terry loop face and one yarn shall be used in knitting the back of the fabric. The color of the fabric shall be the natural color (yellow) of the fiber as produced by the manufacturer. Bleach or a color modifier shall not be used. Additionally, the yarn and fabric requirements shall conform to construction A or B. Testing shall be as specified in 4.4.1.

- * 3.3.1.1 Construction A. The yarns shall be either 100 percent para-aramid fiber or a blend of not more than 20 percent (including manufacturing variability) permanently flame retardant (PFR) rayon fiber with the remaining percentage para-aramid fiber. The fabric shall contain a minimum of 10 wales and 12 courses per inch, a minimum thickness of 0.140 inch, and a minimum weight of 23.5 ounces per square yard.
- * 3.3.1.2 Construction B. The yarns shall be made by wrapping a blend of equal amounts of para-aramid and meta-aramid fibers around a central core of fiberglass. The amount of fiberglass in the total yarn blend shall not exceed 30 percent. The fabric shall contain a minimum of 10 wales and 12 courses per inch, a minimum thickness of 0.124 inch, and a minimum weight of 20.0 ounces per square yard.

3.3.2 Cloth, duck, cotton, unbleached. The unbleached cotton duck lining shall be 9.85 ounces per square yard conforming to type III of CCC-C-419.

3.3.3 Cloth, knitted, napped (interlining). The interlining shall be made of natural or unbleached yarns. The back of the knitted lining shall be made from singles, carded cotton yarn. The napped face of the knitted interlining shall be made from singles, woolen yarn spun on the woolen system of manufacture. The wool content of the cloth shall be no less than 70 percent based on the dry desized specimen and the remaining percentage shall be cotton. The weight of the cloth shall be 9.0 to 11.0 ounces per square yard. Testing shall be as specified in 4.4.1.

3.3.4 Tape, cotton. The tape shall conform to type I, class 1, 3/4 inch width of MIL-T-43566.

3.3.5 Thread.

3.3.5.1 Thread, cotton. The thread for stitching interlining to duck lining shall be unbleached cotton conforming to type IA1, ticket No. 30, 3 ply of V-T-276. The thread for closing the inner shell and attaching the thumb of inner shell to palm of inner shell shall be unbleached cotton conforming to IA2, ticket No. 16, 4 ply of V-T-276.

3.3.5.2 Thread, aramid and para-aramid. The thread for all operations other than specified in 3.3.5.1 shall be either aramid thread conforming to size E of MIL-T-43636, or para-aramid spun thread conforming to size T-50 of MIL-T-44100. The color of the aramid or para-aramid thread shall be natural.

3.3.6 Rings, "D". "D" rings shall conform to class 2, configuration A of MIL-R-3390.

MIL-M-11199H

3.3.7 Label identification. Each mitten shall have an identification label conforming to type VI, class 5 of DDD-L-20. The item description for use on the label shall be: Mitten, Heat Protective.

3.4 Design. The mitten shall be an ambidextrous design consisting of an outer terry cloth shell, an interlining, and an inner duck lining.

3.5 Patterns. The patterns and dies for cutting the parts of the mitten shall be furnished by the contractor and shall be of proper proportions to provide mittens conforming to the measurements specified in table III. The pattern parts and the materials from which the parts are to be cut are listed in table I.

TABLE I. List of pattern parts for mittens

Material	Nomenclature	Cut parts per mitten
Terry cloth for shell (see 3.3.1)	Thumb body	1
	Body	1
Cotton duck cloth for lining (see 3.3.2)	Thumb lining	1
	Body lining	1
Wool and cotton, knitted napped cloth for lining (see 3.3.3)	Thumb interlining	1
	Body interlining	1

3.6 Construction.

* 3.6.1 Manufacturing operations requirements. The mitten shall be manufactured in accordance with the operation requirements specified in table II. The contractor is not required to follow the exact sequence of operations. In the event of a conflict between the written document and the referenced drawing, the written document shall govern.

3.6.2 Stitches, seams, and stitchings. All stitches, seams, and stitching shall conform to FED-STD-751. The type of seam, stitching, and stitches per inch shall be as specified in table II. Seam allowances shall be maintained with seams sewn so that no raw edges, run-offs, twists, pleats, puckers, or open seams occur.

MIL-M-11199H

3.6.2.1 Type 301 stitching. Ends of stitching shall be backstitched or overstitched not less than $3/8$ inch except where ends are caught in other seams and stitching. Thread tension shall be maintained so there will be no loose stitching resulting in loose bobbin or top thread, or excessively tight stitching resulting in puckering of the material sewn. The lock shall be imbedded in the materials sewn.

3.6.2.1.1 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 $3/8$ 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 $3/8$ inch back of the defective area, continue over the defective area, and continue a minimum of $3/8$ inch beyond the defective area onto the existing stitching. Loose or excessively 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 stitching are not required to be backstitched.

3.6.2.2 Type 401 stitching. Thread tension shall be maintained so there will be no loose stitching. Both ends of all seams or stitching produced with 401 stitch type, when not caught in other seams or stitching shall have a $1/2$ to $3/4$ inch chain extending beyond each end. When stitch type 401 is used, the looper thread shall be on the inside of the mitten. All repairs shall be in accordance with 3.6.2.1.1.a and 3.6.2.1.1.b. Repairs may be made using 301 stitch type.

MIL-M-11199H

TABLE II. Manufacturing operations requirements

No.	Requirement	Stitch type	Seam and stitching type	Stitches per inch	Thread	
					Needle	Bobbin/looper
1.	<p><u>Cutting:</u></p> <p>Fabric components shall be cut on a straight line with the cuff to finger tip direction in the length direction of the fabric. Components having material defects or damages that are classified as defects in 4.4.2 and 4.4.3 shall be removed from production and replaced with non-defective and properly matched components.</p>					
2.	<p><u>Terry cloth shell:</u></p> <p>a. Join thumb to hand. The thumb piece shall be in seam sewn to hand with two rows of stitching 1/16 to 1/8 inch apart, 3/8 inch \pm 1/16 inch from edge.</p> <p>b. Closing. The hand shall be closed with two rows of stitching, 1/16 to 1/8 inch apart, 3/8 inch \pm 1/16 from edge.</p>	301	SSa-2	6-8	E	E
3.	<p><u>Attach identification label:</u></p> <p>The label shall be attached to the palm side of the terry cloth shell (i.e., side that does not have the "D" ring). Attach label to the outside of each terry cloth shell by stitching the four sides of the label to the shell. The stitch margin shall be 3/16 \pm 1/16 inch from the edge of the label. The label shall be located at the center of the palm approximately 1/2 inch below the top opening.</p>	301	SSa-1	8-10	E	E

MIL-M-11199H

TABLE II. Manufacturing operations requirements - Continued

No.	Requirement	Stitch type	Seam and stitching type	Stitches per inch	Thread	
					Needle	Bobbin/ looper
4.	<u>Make inner shell (consisting of knitted napped) interlining and cotton duck lining):</u>					
	a. Place hand portion of knitted interlining on hand portion of duck lining with cotton back of knitted interlining next to duck lining. Join the linings together to form hand portion of inner shell by stitching around the periphery 1/4 to 3/8 inch in from edge of interlining.	301 or 401	SSa-1	8-10	30-3	30-3
	b. Join thumb portion of interlining and duck lining together to form thumb portion of inner shell using the same procedure described in 4a above.	301 or 401	SSa-1	8-10	30-3	30-3
	c. Attach thumb portion of inner shell to hand portion of inner shell with one row of stitches 1/4 ± 1/16 inch from edge of duck lining.	301	SSa-1	8-10	16-4	16-4
	d. Close inner shell with one row of stitches 1/4 ± 1/16 inch from edge of duck lining.	301	SSa-1	8-10	16-4	16-4
5.	<u>Attach inner shell (knitted napped fabric and duck lining) to terry cloth outer shell:</u>					
	Attach inner shell to terry cloth shell by tacking at hand portion and thumb (see stage 7, Drawing 2-1-23).	301	SSa-1	8-10	E	E
6.	<u>Turn mitten:</u>					
	The terry cloth mitten shall be turned right side out by pulling it down over the lining.					

MIL-M-11199H

TABLE II. Manufacturing operations requirements - Continued

No.	Requirement	Stitch type	Seam and stitching type	Stitches per inch	Thread	
					Needle	Bobbin/ looper
7.	<u>Hemming:</u> The top raw edges of the terry cloth shell and the duck lining shall be hemmed by turning in both cloths not less than 5/8 inch and stitching through both cloths not more than 3/8 inch down from the top of the gauntlet or cuff. The edge of the duck lining shall be turned over the knitted interlining. The stitches may pass through the interlining but shall not be superimposed on the stitching joining duck to interlining. The duck lining shall not extend beyond the edge of the terry cloth.	301	SSc-1	8-10	E	E
8.	<u>"D" ring attachment:</u> The "D" ring shall be attached using 3/4 inch unbleached webbing. The tape and "D" ring shall be assembled and attached to the mitten as shown in section M-M of Drawing 2-1-23.	301		8-10	E	E

MIL-M-11199H

3.7 Measurements. The finished mitten shall conform to the measurements shown in table III.

TABLE III. Finished measurements

Location	Inches	Tolerance inches
Overall length	12-1/2	+1, -1/2
Width (measure across mitten 3-1/2 inches from closed end)	5-3/4	+1/2, -1/4
Width (measure across mitten 6 inches \pm 1/4 inch from open end)	6	+1/4, -0
Thumb length (measure from inside fold to top of thumb)	3	+1/2, -1/4
Thumb width (measure across back of thumb 1-1/2 inches from top of thumb)	2-1/2	+1/4, -0

3.8 Workmanship. The finished mitten shall conform to the quality of product established by this document 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 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 document where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

MIL-M-11199H

- * 4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this document shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirement in the document shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.
- * 4.1.2 Responsibility for dimensional requirements. Unless otherwise specified in the contract or purchase order, the contractor is responsible for assuring 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 assure compliance with all dimensional requirements.
- 4.1.3 Certificates of compliance. When certificates of compliance are submitted, the Government reserves the right to inspect such items to determine the validity of the certification.
- * 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 6.2), it shall be examined for the defects specified in 4.4.3, 4.4.4, and table VI. The presence of any defect shall be cause for rejection of the first article.
- 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 document or applicable purchase document. In addition testing shall be performed on the components listed in table IV. Unless otherwise indicated, the test methods listed in table IV shall be in accordance with FED-STD-191. The lot size shall be expressed in units of 1 yard. The sample unit shall be 1/2 linear yard of each cloth. All test reports shall contain the individual values utilized in expressing the final result. The lot shall be unacceptable if one or more sample units fail to meet any requirement specified. The sample size shall be as follows:

MIL-M-11199H

<u>Lot size</u>	<u>Sample size</u>
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

TABLE IV. Component tests

<u>Component</u>	<u>Characteristic</u>	<u>Requirement paragraph</u>	<u>Test method</u>
Terry cloth	Fiber identification	3.3.1	1/
	Fiber blend (when applicable)	3.3.1	2/
	Yarn size	3.3.1	2/
	Wales per inch	3.3.1	5070
	Courses per inch	3.3.1	5070
	Thickness	3.3.1	5030
	Weight	3.3.1	5041
Cloth, knitted napped	Material identification	3.3.3	2/
	Wool content	3.3.3	2100
	Weight	3.3.3	5041

1/ AATCC Test Method 20 (see Solubility of Fibers).

2/ Unless otherwise specified, a certificate of compliance shall be submitted and will be acceptable for the stated requirement.

4.4.2 In-process inspection. Prior to joining, the completely assembled inner shell and the assembled terry cloth shell shall be examined for the defects listed in table V. The lot size shall be expressed in units of one inner shell and one terry cloth shell. The sample unit shall consist of both one inner shell and one terry cloth shell. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 6.5 for major defects and 10.0 for total (major and minor combined) defects. For this examination, the terry cloth shell shall be examined prior to turning only.

MIL-M-11199H

TABLE V. In-process listing of defects - Continued

Examine	Defect	Classification	
		Major	Minor
Construction, workmanship, and assembly - continued	Ends of seam or stitching produced with stitch type 301 when not caught in another row of stitching:		
	- Not backstitched or not overstitched, or backstitched or overstitched less than 3/8 inch		X
	End of seam or stitching produced with stitch type 401 when not caught in other seam or stitching:		
	- Chain extends less than 1/2 inch or more than 3/4 inch beyond each end		X
	- Chain does not extend beyond each end	X	
	Part caught in unrelated row of stitching	X	
	One stitch per inch less than specified		X
	Two or more stitches per inch less than specified	X	
	More than specified maximum number of stitches per inch resulting in damage to assembly	X	
	Part malformed	X	
	Part or assembly not firmly or properly affixed causing discomfort to user, e.g., lining seriously wrinkled or excessive bulk in crotch of thumb, etc.	X	
	Needle chew which may develop into hole	X	
	Not assembled as specified	X	

4.4.3 End item visual examination. The end item shall be examined for the defects listed in table VI. The lot size shall be expressed in units of completely fabricated mittens. The sample unit shall be one completely fabricated mitten. The inspection level shall be II and the AQL, expressed in terms of defects per hundred units, shall be 2.5 for major defects and 6.5 for total (major and minor combined) defects.

MIL-M-11199H

TABLE VI. End item visual defects

Examine	Defect	Classification	
		Major	Minor
Cleanness	Spot, stain, or foreign matter not removable		X
Material (general)	Component not fabricated of specified material	X	
	Cut, hole, tear, smash, or rip	X	
	Mend	X	
	Terry cloth has area with no terry loops	X	
Construction and workmanship, general (applicable to all components and assemblies unless otherwise indicated herein)	Component or operation omitted	X	
	Component misplaced		X
	Needle chew	X	
	Not assembled as specified	X	
	Component not securely attached	X	
Seams and stitching	Liner does not fit properly inside of shell (e.g., liner too short or too narrow)	X	
	Not specified seam or stitch type	X	
	Row of stitching omitted	X	
	Open seam (except "D" ring attachment or hem)	X	
	Open seam on "D" ring attachment or hem		X
	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.		
	Repair of open seam not as specified		X
	Loose stitch tension resulting in a loosely secured seam	X	
	Tight stitch tension resulting in cutting of fabric or breaking of stitches when normal pull is applied	X	

MIL-M-11199H

TABLE VI. End item visual defects - Continued

Examine	Defect	Classification	
		Major	Minor
Seams and stitching - continued	Ends of seams or stitching produced with stitch type 301 when not caught in another row of stitching:		
	- Not backstitched or not over-stitched, or backstitched or overstitched less than 3/8 inch		X
	Ends of seam or stitching produced with stitch type 401 when not caught in other seam or stitching:		
	- Chain extends less than 1/2 inch or more than 3/4 inch beyond each end		X
	- Chain does not extend beyond each end	X	
	Part caught in unrelated row of stitching	X	
	One stitch per inch less than minimum specified		X
	Two or more stitches per inch less than minimum specified	X	
	More than the specified maximum number of stitches per inch resulting in damage to assembly	X	
	Gage or margin of stitching irregularly accomplished		X
Assembly detail	Part malformed	X	
	Lining seriously wrinkled or excessive bulk in crotch of thumb or hand	X	
	Three or more thread ends not trimmed to 1/4 inch on outside		X
	Duck lining extends beyond edge of terry cloth fabric	X	
Label	Missing, incomplete, incorrect, illegible	X	
	Not specified type, not in proper location, or not accomplished in the specified manner		X

MIL-M-11199H

TABLE VI. End item visual defects - Continued

Examine	Defect	Classification	
		Major	Minor
D-ring	Wrong size	X	
	Finish not black enamel	X	
	Area of no finish		X
	Finish not adherent, (e.g., flaking or peeling)		X
	Sharp edge or projection	X	
	Cracked or broken	X	
	Bent or malformed		X

4.4.4 End item dimensional examination. The end item shall be examined for conformance to the dimensions specified in 3.7. Any dimension that is not within the established tolerance shall be classified as a defect. The lot size shall be expressed in units of finished mittens. The sample unit shall be one finished mitten. The inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

* 4.4.5 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.

<u>Examine</u>	<u>Defect</u>
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 Bulged or distorted container

MIL-M-11199H

<u>Examine</u>	<u>Defect</u>
Content	Number per container is more or less than required

- * 4.2.6 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.

<u>Examine</u>	<u>Defect</u>
Finished dimensions	Length, width, or height exceeds specified maximum requirement
Palletization	Pallet pattern not as specified Interlocking of loads not as specified 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 Packing. Packing shall be level A, B, or Commercial as specified (see 6.2).

- * 5.1.1 Level A packing. Thirty-two mittens shall be packed in a snug fitting fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. Mittens shall be packed on edge within a shipping container. The arrangement shall be twenty-eight mittens alternated end for end with the mitten length parallel to the end panels and against a side panel. The remaining four mittens shall be placed in the unfilled space, with the mitten length parallel to the side panels. Inside dimensions of each container shall approximate 23-1/2 inches in length, 15-1/2 inches in width, and 6-3/4 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

MIL-M-11199H

with 4.4.5. Shipping containers shall be arranged in unit loads in accordance with MIL-L-35078 for the type and class of load specified (see 6.2). When unit loads are strapped, strapping shall be limited to nonmetallic strapping except for type II, class F loads.

- * **5.1.2 Level B packing.** Thirty-two mittens shall be packed in a snug fitting fiberboard shipping container conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 200 of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 200 of PPP-B-636. Mittens shall be packed on edge within the shipping container. The arrangement shall be twenty-eight mittens alternated end for end with the mitten length parallel to the end panels and against a side panel. The remaining four mittens shall be placed in the unfilled space, with the mitten length parallel to the side panels. Inside dimensions of each container shall approximate 23-1/2 inches in length, 15-1/2 inches in width, and 6-3/4 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 II as specified in the appendix of PPP-B-636, except that inspection shall be in accordance with 4.4.5.

5.1.2.1 Weather-resistant fiberboard containers. When specified (see 6.2), the shipping container shall be a 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 4.4.5.

5.1.3 Commercial packing. Mittens shall be packed in accordance with ASTM D 3951.

5.2 Palletization. When specified (see 6.2), mittens, packed as specified in 5.1.2 and 5.1.3, shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Pallet type 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 primary and secondary straps in accordance with bonding means K and L or film bonding means O or P. Pallet pattern shall be number 3 in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course.

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

MIL-M-11199H

6. NOTES

6.1 Intended use. The mittens are worn by military personnel of the Department of Defense to protect the hands from heat or burns when handling hot metals or objects.

6.2 Ordering data. Acquisition documents should specify the following:

- a. Title, number, and date of this document.
- b. When a first article is required (see 3.2, 4.3, and 6.4).
- c. Selection of applicable level of packing (see 5.1).
- d. When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.1.2.1).
- e. When palletization is required (see 5.2).

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

* 6.4 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 should 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 include specific instructions in all acquisition instruments regarding arrangements for selection, inspection, and approval of the first article.

6.5 Recycled material. It is encouraged that recycled material be used when practical as long as it meets the requirements of this document (see 3.3).

6.6 Terry cloth fabric. Terry cloth (see 3.3.1) produced from Kevlar 29 aramid fiber manufactured by E.I. du Pont de Nemours and Co., 1007 Market Street, Wilmington, DE 19898 has met the requirements of this document.

6.7 Subject term (key word) listing.

Clothing, protective
Mitten, heat protective

6.8 Changes from previous issue. The margins of this document are marked with an asterisk (*) to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only, and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content, as written, irrespective of the marginal notations and relationship to the last previous issue.

MIL-M-11199H

Custodians:

Army - GL
Navy - NU
Air Force - 99

Preparing activity:

Army - GL
Project No. 8415-0614

Review activities:

Army - MD
Air Force - 82
DLA - CT

User activities:

Navy - MC, YD
Air Force - 45

instructions. In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvements. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edge (DO NOT STAPLE), and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

NOTE This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification 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.

(Fold along this line)

(Fold along this line)

DEPARTMENT OF THE ARMY

US Army Natick Research, Development, and
Engineering Center
Natick, MA 01760-5014



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE \$300
STRNC-ES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO 12082 WASHINGTON D C

POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE ARMY

Commander
US Army Natick Research, Development,
and Engineering Center
ATTN: STRNC-ES
Box 14A
Natick, MA 01760-5014



