Downloaded from http://www.everyspec.com

KK-C-450F
March 25, 1986
SUPERSEDING
KK-C-450E
April 23, 1975

FEDERAL SPECIFICATION

CLOTHING, LEATHER, (APRONS, SLEEVES, AND JACKETS)

This specification is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers leather protective aprons, sleeves, and jackets.

1.2 Classification.

1.2.1 Types and classes. Leather clothing shall be of the following types and classes, as specified (see 6.2).

Type I - Aprons
  Class 1 - Plain
  Class 2 - Split leg
Type II - Sleeves
  Class 1 - Plain
  Class 2 - Sleeve, cape and bib, welder's
Type III - Jacket

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.

Downloaded from http://www.everyspec.com

2. APPLICABLE DOCUMENTS

2.1 Government publications. The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

Federal Specifications:

V-T-276	-	Thread, Cotton
FF-R-556	-	Rivet, Solid, Small; Rivet, Split, Small; Rivet, Tubular, Small; Flat Washer (Burr); and Cap, Rivet; General Purpose
JJ-W-155	-	Webbing, Textile, (Cotton, Elastic)
KK-L-2004	-	Leather, Cattlehide, Deerskin and Horsehide, Chrome Tanned
UU-P-268	-	Paper, Kraft, Wrapping
DDD-L-20	-	Label: For Clothing, Equipage, and Tentage, (General Use)
PPP-B-636	-	Boxes, Shipping, Fiberboard

Federal Standards:

FED-STD-123	-	Marking for Domestic Shipment (Civil Agencies)
FED-STD-311	-	Leather; Methods of Sampling and Testing
FED-STD-751	-	Stitches, Seams, and Stitchings

(Activities outside the Federal Government may obtain copies of Federal specifications, standards, and commercial item descriptions as outlined under General Information in the Index of Federal Specifications, Standards, and Commercial Item Descriptions. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

(Single copies of this specification, other Federal specifications, and commercial item descriptions required by activities outside the Federal Government for bidding purposes are available without charge from General Services Administration Business Service Centers in Boston, MA; New York, NY; Philadelphia, PA; Washington, DC; Atlanta, GA; Chicago, IL; Kansas City, MO; Fort Worth, TX; Denver, CO; San Francisco, CA; Los Angeles, CA; and Seattle, WA.

(Federal Government activities may obtain copies of Federal standardization documents, and the Index of Federal Specifications, Standards and Commercial Item Descriptions from established distribution points in their agencies.)

Downloaded from http://www.everyspec.com

Military Specifications:

MIL-B-286	-	Buttons, Tack; and Tack, Button
MIL-F-10884	-	Fasteners, Snap
MIL-G-16491	-	Grommet, Metallic
MIL-L-35078	-	Loads, Unit: Preparation of Semiperishable Subsistence Items; Clothing, Personal Equipment and Equipage; General Specification For
MIL-T-44100	-	Thread, Para-aramid, Spun, Intermediate Modulus

Military Standards:

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

DRAWINGS

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

2-1-521	-	Clothing, Leather, (Aprons, Sleeves, and Jackets) type III, Jacket
2-1-522	-	Clothing, Leather, (Aprons, Sleeves, and Jackets) Apron, Split Leg, type I, class 2
2-1-523	-	Clothing, Leather, (Aprons, Sleeves, and Jackets) type II, class 1 Sleeve. Type II, class 2 Sleeve, Cape and Bib, Welder's
2-1-524	-	Clothing, Leather, (Aprons, Sleeves, and Jackets) Plain Apron, type I, class 1

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

2.2 Other publications. The following document forms a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply:

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.)

Downloaded from http://www.everyspec.com

(Industry association specifications and standards are generally available for reference from libraries. They are also distributed among Technical groups and using Federal agencies.)

3. REQUIREMENTS

3.1 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 6.3).

3.2 Materials (see 6.5).

3.2.1 Leather. The leather for body, straps, and thongs shall conform to type IV, class 2 of KK-L-2004 except that the minimum elongation shall be 10 percent and the maximum elongation shall be 45 percent. The color of the leather shall be natural as produced by the tanning agents. The leather body shall be 4/64 (- 1/128 + 1/64) inch thick. The leather straps and thongs shall be 5/64 (- 1/128 + 1/64) inch thick.

3.2.2 Webbing, elastic. The elastic webbing shall be unbleached, 3/4 inch, type I, class 3, conforming to JJ-W-155. A commercial type 3/4 inch wide elastic webbing meeting the initial tension requirement for the type I, class 3 webbing of JJ-W-155 may be used as an alternate.

3.2.3 Thread. The thread shall be cotton as specified in 3.2.3.1 or para-aramid as specified in 3.2.3.2. The thread shall be undyed.

3.2.3.1 Thread, cotton. When stitch type 301 is used (see 3.3.1), the thread shall be ticket No. 12, 4 ply; type IB1 for needle, type IA1 for bobbin, conforming to V-T-276. When stitch type 401 is used (see 3.3.1), the thread shall be ticket No. 12, 4 ply; type IB1 for needle, type IA1, ticket No. 20, 3 ply for looper, conforming to V-T-276. Bartacks shall have type IA1, ticket No. 20, 3 ply thread of V-T-276 for the needle and bobbin.

3.2.3.2 Thread, para-aramid. The thread shall conform to size T-50 of MIL-T-44100.

3.2.4 Fasteners, snap.

3.2.4.1 Type I clothing. The male snap fastener for the type I clothing, consisting of a stud and eyelet, shall be style 2A, finish 2 conforming to MIL-F-10884. The size of the eyelet component shall be selected by the contractor and shall be of sufficient length to insure a secure clinch.

3.2.4.2 Type II and type III clothing. The snap fastener for the type II, classes 1 and 2 and type III clothing shall be style 2, finish 2 conforming to MIL-F-10884. The size of the button and eyelet components shall be selected by the contractor and shall be of sufficient length to insure a secure clinch.

Downloaded from http://www.everyspec.com

3.2.5 Slide socket. The slide socket for type I, classes 1 and 2 aprons shall be as shown on Drawing 2-1-522 or 2-1-524, as applicable (see 6.4). The socket component shall be capable of firmly engaging the stud component of the male snap fastener specified in 3.2.4.1 and shall be capable of unsnapping to effect separation. The slide socket assembly shall have the same finish required for the fastener specified in 3.2.4.1.

3.2.6 Buttons and tacks. The buttons and tacks for the type II, class 2 clothing shall conform to MIL-B-286. The buttons shall be type I, black, size 27-line and the tacks type IX, black, size 17-line by 0.406 inch or size 14-line by 0.406 inch.

3.2.7 Grommets. The grommets for the type II clothing shall be type III, class 3, size 1, conforming to MIL-G-16491.

3.2.8 Rivets, split. The split rivets shall be nominal 1/8 inch diameter, black oxide finish, conforming to type XI, class 1, grade E of FF-R-556 except that the rivet may have a standard straight slot. The length shall be such as to effect a minimum clinch of 1/8 inch after penetrating the leather parts being secured.

3.2.9 Staples. The staples used for stitching shall be formed of flat steel wire approximately 0.060 by 0.020 inch, and have a corrosion resistant finish. The crown length shall be approximately 1/2 inch and the leg length of the formed staple shall be such as to insure a clinch of 1/16 inch minimum and 1/8 inch maximum after the staple has penetrated the leather being sewed.

3.3 Construction. The construction shall conform to drawings listed in section 2 and as specified herein.

3.3.1 Stitching. Type 401 or type 301 stitching conforming to FED-STD-751 shall be used on double needle seams that are reinforced with staple stitching. All remaining stitching except staple stitching and bartacking shall conform to type 301 of FED-STD-751. All stitching except staple stitching and bartacking shall have 6-10 stitches per inch. When stitch type 401 is used, the chain shall be on the inside of the garment. Type 401 stitching shall have a 1/2 inch bartack (see 3.3.1.3) placed across the ends of the stitches except when the ends are caught in other seams or stitching. Type 301 stitching shall be backstitched not less than 1/2 inch at the ends 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 or excessively tight stitching resulting in puckering of the material sewn. All thread ends shall be trimmed to a length of not more than 1/4 inch.

3.3.1.1 Repairs of types 301 and 401 stitching. Repairs of stitching shall be as follows:

Downloaded from http://www.everyspec.com

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 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 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.

3.3.1.2 Staple stitching. Staple stitching shall be done with staples specified in 3.2.9. Seams shall be formed as shown on Drawings 2-1-521, 2-1-522, and 2-1-523 with a single row of wire staples between the double row of cotton thread stitching. Staples, except where three plies of leather are stapled, shall be spaced approximately 1-1/2 staples per inch as shown on Drawing 2-1-522. All staples shall be securely clinched.

3.3.1.3 Bartacking. Bartacks shall be as specified on the applicable drawing and as follows:

Length	Width	Stitches per bartack
1/2 inch ± 1/16	1/8 inch ± 1/32	28
3/4 inch ± 1/16	1/8 inch ± 1/32	42

Bartacks shall be free from thread breaks and loose stitching.

3.3.2 Buttonholes. The buttonholes in the leather attached to the elastic webbing shall be of the dimensions shown on Drawing 2-1-523. One end of the slit shall terminate in a round perforation and the surface edges of the slit shall be smooth and free from loose fibers.

3.3.3 Setting of grommets. Holes punched to receive the grommets shall be smaller than the outside diameter of the grommet barrel so that the barrel must be forced through the hole. The grommets shall be securely clinched without cutting the materials.

3.3.4 Setting of snap fasteners. The snap fasteners shall be located as shown on the drawings. If a hole is punched before inserting the barrel of the eyelet, it shall be smaller than the outside diameter of the eyelet barrel so that the barrel must be forced through the hole. The fasteners shall be securely clinched without cutting the materials.

Downloaded from http://www.everyspec.com

3.3.5 Setting of buttons and tacks. The buttons and tacks shall be securely set without damage to them or the materials in which they are set.

3.3.6 Piecing. The bib portion of type I, class 2 apron may be made of one or three pieces. When three pieces are used, joining seams shall be as shown on Drawing 2-1-522 and the center piece of the bib shall be not less than 12 inches girthwise.

3.4 Marking. The identification marking shall be applied in the location shown on each drawing and shall conform to type IV, class 5 of DDD-L-20.

3.5 Replacement of defective components. During the manufacturing process, components having material defects or damages that are classified as defects in 4.4.3.1 and 4.4.3.2 shall be removed from production and replaced with nondefective and properly matched components.

3.6 Workmanship. The finished garments shall conform to the quality and grade of product established by this specification. 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 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 the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items must 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 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 indicted 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.

Downloaded from http://www.everyspec.com

4.1.3 Certificate of compliance. Where certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.

4.2 Classification of inspection. 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 and 4.4.4. 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 specifications, drawings, and standards, unless otherwise excluded, amended, modified, or qualified in this specification or applicable purchase document. The staples specified in 3.2.9 will be accepted on the basis of the contractor's certification of compliance with the requirements specified.

4.4.2 In-process inspection. Inspection shall be made at any point or during any phase of the manufacturing process to determine whether operations or assemblies are carried out as specified. The Government reserves the right to exclude from consideration for acceptance any material or service for which in-process inspection has indicated nonconformance.

4.4.3 End item visual examination. The end item shall be examined for the defects listed below. The lot size shall be expressed in units of one apron, sleeve, sleeve with cape and bib, or jacket, as applicable. The sample unit shall be one apron sleeve, sleeve with cape and bib, or jacket, as applicable. The sample unit selection for sleeves shall be in pairs. Defects for pairing (sleeves), shall be classified as a single defect. 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 6.5 for total (major and minor combined) defects.

Downloaded from http://www.everyspec.com

Examine	Defect	Classification Major	Minor
Pairing (type II)	Sleeves not properly mated, e.g., not right and left of same size	X	
Design	Any characteristic not in accordance with specified requirements (unless otherwise indicated herein).	X	
Finish of metal components	Not finished as specified.		X
Cleanness	Any spot or stain.		X
	Thread ends not trimmed throughout.		X
Type and class	Not specified type or class.	X	
Material	Any component not fabricated of specified material.	X	
Quality of leather	Any through cut, hole, or tear.	X	
	Weak area, spongy area, abraded area, thin area, open vein, or cut (except through cut).		X
	Brittle area.	X	
	Open brand.	X	
	Well-healed brand.		X
	Any prominent scar greater than 6 inches in length.		X
	More than three prominent scars 6 inches or less in length in a radius		
	More than six prominent scars per sample unit.		X
NOTE:	Light well-healed scars (except brands) shall not be classified as defects.		
	Hard or boardy area that would affect comfort.	X	
	Loose flesh on assembled item.		X

Downloaded from http://www.everyspec.com

Examine	Defect	Classification Major	Minor
Construction and workmanship general (applicable to all components and assemblies)	Any component missing.	X	
	Any component misplaced, any operation omitted or not performed as specified.	X	
	Any part fractured, ripped, punctured, or torn.	X	
	Any part malformed.	X	
	Any repair of leather defects, e.g., patch over a hole.	X	
	Needle chew.	X	
	Not assembled as specified.	X	
Metal components	Not specified type or style.	X	
	Missing.	X	
	Sharp burr or metal sliver.		X
	Snap fastener or slide socket will not function properly.	X	
	Snap fastener damaged but will function properly.		X
	Grommet or snap fastener not clinched to a degree where it may become detached from assembly.	X	
	Rivet button or tack not set properly to a degree where it may become detached.		X
	Slide socket or snap fastener reversed on assembly.	X	
	More than one grommet or snap fastener not tightly set on assembly, i.e., can be rotated.	X	
	Any metal component damaging leather, e.g., snap fastener too tightly clinched resulting in its periphery cutting in leather.	X	
Seams and stitching (general)	Not specified seam type.	X	
	Not specified stitch type.	X	
	More than the maximum number of stitches per inch specified resulting in damage to leather.	X	
	More than the maximum number of stitches per inch specified, but not damaging leather.		X
	One or two stitches per inch less than the minimum specified.		X

Downloaded from http://www.everyspec.com

Examine	Defect	Classification Major	Minor
Seams and stitching (general) (cont'd)	Three or more stitches per inch less than minimum specified.	X	
	Gage of stitching irregular.		X
	Loose stitch tension resulting in a loosely secured seam.	X	
	Tight stitch tension, i.e., stitches break when normal pull is applied.	X	
Stitching ends	Not secured as specified.		X
Thread stitching not used in conjunction with staple stitching	Row of stitching omitted.	X	
	Open seam:		
	-in single stitched seam	X	
	-in both rows of a double stitched seam	X	
	-in one row of a double stitched seam		X
	-repaired, but not repaired as specified		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.		
Thread stitching used in conjunction with staple stitching	Row of stitching omitted.		X
	Any open seam in cotton stitching.		X
	Open seam repaired, but not repaired as specified.		X
Bartacks	Stitching loose, incomplete, or broken.		X
	Any bartack omitted.	X	
	Bartack runs off edge of webbing.		X
	Edge of webbing cut by bartack.	X	
Staple stitching	Missing staple.	X	
	Any stress point not reinforced by a rivet or double stapling as shown on drawings.		X
	More than five staples per row of stitching not located within the parallel rows of cotton stitching.		X

Downloaded from http://www.everyspec.com

Examine	Defect	Classification Major	Minor
Staple stitching (cont'd)	Staple leg protruding so that point can scratch the bare hand when passed over it.	X	
	Staple not firmly or tightly clinched but cannot scratch hand when passed over it.		X
	Not spaced as specified.		X
	Spacing between any two consecutive staples is greater than 1/2 inch. (Not applicable when three or more plies of leather are joined).		X
Apron (type I)	Any strap missing.	X	
	Ends of strap not tapered.		X
	Any reinforcement piece omitted.		X
Class 1 Apron body	Consists of more than one piece of leather.	X	
Class 2 Apron body	Consists of more than five pieces of leather.	X	
Sleeve (type II) Class 1	Grommets misplaced to a degree that thongs cannot serve intended purpose.	X	
Class 2	Button or snap fastener misplaced.	X	
	Buttonhole not formed as shown on drawing.		X
Jacket (type III)	Collar poor fit to body of jacket.	X	
	Collar corners not uniformly shaped or poorly shaped.		X
	Distance between snap fasteners on left front less than 2-3/4 inches or more than 3-1/4 inches but both male and female parts of fastener are in alignment.		X
	Male and female portion of snap fasteners not aligned, failing to effect a secure closure or to open freely.	X	
	Protective flap not located and sewn to left front as specified.	X	

Downloaded from http://www.everyspec.com

Examine	Defect	Classification Major	Minor
Jacket (type III) (cont'd)	Female portion of snap fasteners on right front do not coincide with male portion on protective flap.	X	
	Pocket flap and pocket not properly aligned.	X	
Marking	Omitted, incorrect, illegible, or misplaced.		X

4.4.4 End item dimensional examination. The end item shall be examined for conformance to the thickness of leather requirements in 3.2.1 and the dimensions specified on the applicable drawing. Thickness shall be determined in accordance with Method 1011 of FED-STD-311 except that no individual measurement shall be less than the minimum or greater than the maximum specified. Five measurements shall be made at random locations on the jackets and aprons. A total of five measurements shall be made at random locations to determine the thickness of the sleeve, cape and bib assembly. Any thickness or dimension not within the established tolerance shall be classified as a defect. The lot size shall be expressed in units of one apron, sleeve, sleeve with cape and bib, or jacket, as applicable. The sample unit shall be one apron, sleeve, sleeve with cape and bib or jacket as applicable. The sample unit selection for sleeves shall be in pairs. 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 inspection. An inspection shall be made to determine that the preservation, packing, and marking comply with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully packaged. The lot size shall be the number of shipping containers in the inspection lot. The inspection level shall be S-2 and the AQL expressed in terms of defects per hundred units, shall be 2.5.

Examine	Defect
Markings (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 closure of container flap, loose strapping, inadequate stapling, or improper taping.
	Bulged or distorted container.

Downloaded from http://www.everyspec.com

Examine	Defect
Content	Number per bundle is more or less than required.
Weight	Net weight of contents more than maximum specified.

4.4.6 Palletization inspection. An inspection shall be made to determine that the palletization complies with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one palletized unit load fully packaged. The lot size shall be the number of palletized unit loads in the inspection lot. 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 requirements.
Palletization	Pallet pattern not as specified. Interlocking of loads not as specified. Load not bonded with required straps 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. Six aprons of one class only, six pair of sleeves of one class and size only; or six jackets of one size only, shall be neatly folded and stacked in a like group bundle. Each bundle shall be securely tied with cotton tape or twine.

5.1.2 Commercial. Aprons, sleeves, or jackets 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. Aprons of one class only; sleeves of one class and size only; or jackets of one size only, preserved as specified in 5.1, 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,

Downloaded from http://www.everyspec.com

variety DW, grade V15c of PPP-B-636. Each shipping 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 type I, grade B of UU-P-268. Shipping containers shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced in accordance with the appendix of the container specification except that the inspection shall be in accordance with 4.4.5. The weight of the contents of each shipping container shall not exceed 65 pounds. Toward the end of the contract, mixed sizes only of type II or III clothing may be packed within the same shipping container. 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). Strapping shall be limited to nonmetallic strapping, except for type II, class F loads.

5.2.2 Level B packing. Aprons of one class only; sleeves of one class and size only; or jackets of one size only, preserved as specified in 5.1, shall be packed in a snug-fitting 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 shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 200 of PPP-B-636. Each shipping 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 type I, grade B of UU-P-268. Shipping containers 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 4.4.5. The weight of the contents of each shipping container shall not exceed 65 pounds. Toward the end of the contract, mixed sizes only of type II or III clothing may be packed within the same shipping container.

5.2.2.1 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.

5.2.3 Commercial packing. Aprons, sleeves, or jackets preserved as specified in 5.1, shall be packed in accordance with ASTM D 3951.

5.3 Palletization. When specified (see 6.2), aprons, sleeves, or jackets, 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 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 patterns shall be in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the patterns specified in MIL-STD-147 the pallet pattern used shall first be approved by the contracting officer.

Downloaded from http://www.everyspec.com

5.4 Marking. Marking shall be in accordance with 5.4.1 or 5.4.2 as specified (see 6.2).

5.4.1 Civil agencies. 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 FED-STD-123 or ASTM D 3951, as applicable.

5.4.2 Military requirements. 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.

5.4.3 Labels, mixed sizes. Each shipping container packed with mixed sizes shall have securely attached to the end and side, directly under the printing or stenciling, a white paper label 5 by 4 inches with the words "MIXED NSN's" plainly stamped or printed thereon and under these words shall be legibly stamped or printed the correct quantity and NSN's contained therein.

6. NOTES

6.1 Intended use. The leather clothing is intended to be used by blacksmiths, mechanics, and welders, in all Government agencies, for the protection of personnel from trade hazards.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

a. Title, number and date of this specification.
b. Type and class required (see 1.2.1).
c. When a first article is required (see 3.1, 4.3, and 6.3).
d. Selection of applicable 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).
h. Marking required (see 5.4).

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 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.

Downloaded from http://www.everyspec.com

6.4 Slide socket. Any manufacturer's slide socket that complies with the requirements of 3.2.5 and Drawings 2-1-522 or 2-1-524 and is of the same manufacturer as the male snap fastener specified in 3.2.4.1 may be used. The following information is furnished only to indicate a possible source of supply for the slide socket:

Item	Supplier	Manufacturers Part No.
Slide socket	United Carr Fastener Co.	XB12622
Slide socket	Rau Fastener Co.	806X249

6.5 Recycled material. It is encouraged that recycled material be used when practical, as long as it meets the requirements of this specification (see 3.2).

MILITARY INTERESTS:

Custodians

Army - GL
Navy - NU
Air Force - 99

Reviewing activities

Army - MD
Air Force - 45, 82
DLA - CT

User activity

Navy - MC

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA-FSS
HEW
JUS
FPI

PREPARING ACTIVITY

Army - GL

Project No. 8415-0455

Downloaded from http://www.everyspec.com

Downloaded from http://www.everyspec.com

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

U.S. ARMY NATICK RESEARCH, DEVELOPMENT
and ENGINEERING CENTER
ATTN: STRNC-ES
Natick, MA 01760-5014

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO. 12062 WASHINGTON D. C.

POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE ARMY

Commander
U.S. Army Natick Research, Development
and Engineering Center
ATTN: STRNC-ES
Natick, MA 01760-5014

Downloaded from http://www.everyspec.com

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

(See Instructions – Reverse Side)

1. DOCUMENT NUMBER	2. DOCUMENT TITLE
KK-C-450E	Clothing, Leather, (Aprons, Sleeves and Jackets)

3a. NAME OF SUBMITTING ORGANIZATION	4. TYPE OF ORGANIZATION *(Mark one)*
	☐ VENDOR
	☐ USER
b. ADDRESS *(Street, City, State, ZIP Code)*	☐ MANUFACTURER
	☐ OTHER *(Specify)*: _____

5. PROBLEM AREAS

a. Paragraph Number and Wording:

b. Recommended Wording:

c. Reason/Rationale for Recommendation:

6. REMARKS

7a. NAME OF SUBMITTER *(Last, First, MI)* – Optional	b. WORK TELEPHONE NUMBER *(Include Area Code)* – Optional
c. MAILING ADDRESS *(Street, City, State, ZIP Code)* – Optional	8. DATE OF SUBMISSION *(YYMMDD)*

DD FORM 1426 PREVIOUS EDITION IS OBSOLETE.