

PPP-P-1132C

October 31, 1983

SUPERSEDING

Fed. Spec. PPP-P-1132B

January 22, 1973

FEDERAL SPECIFICATION

PACKAGING OF WOOLEN, WORSTED AND WOOL

BLEND (SYNTHETIC FIBER; COTTON) FABRICS

This specification is approved by the Assistant Administrator, Office of Federal Supply and Services, General Services Administration, for the use of all Federal agencies.

1. SCOPE

1.1 Scope. This specification covers the preservation, packing, and marking of woolen, worsted, and wool blend fabrics for shipment and storage.

2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issues 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:

- | | |
|-----------|---|
| A-A-203 | - Paper, Kraft, Untreated |
| V-T-276 | - Thread, Cotton |
| CCC-C-429 | - Cloth, Osnaburg, Cotton |
| CCC-C-467 | - Cloth, Burlap, Jute (or Kenaf) |
| PPP-B-576 | - Boxes, Wood, Cleated, Veneer, Paper Overlaid |
| PPP-B-591 | - Boxes, Shipping, Fiberboard, Wood-Cleated |
| PPP-B-601 | - Boxes, Wood, Cleated-Plywood |
| PPP-T-45 | - Tape, Gummed, Paper, Reinforced and Plain, for Sealing and Securing |
| PPP-T-60 | - Tape: Packaging, Waterproof |

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Federal Standards:

- FED-STD-101 - Test Procedures for Packaging Materials
- FED-STD-123 - Marking for Shipment (Civil Agencies)
- FED-STD-191 - Textile Test Methods
- 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 bimonthly 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; Houston, 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.)

Military Specifications:

- MIL-B-121 - Barrier Material, Greaseproofed, Waterproofed, Flexible
- MIL-C-43665 - Cloth Wool: Mothproofing Treatment Of
- MIL-L-10547 - Liners, Case, and Sheet, Overwrap; Water-Vaporproof or Waterproof, Flexible
- MIL-T-40625 - Tubing, Bias Sewn (Burlap or Osnaburg), Cloth

Military Standards:

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
- MIL-STD-129 - Marking for Shipment and Storage

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

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2.2 Other publications. The following documents form 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.)

American Iron and Steel Institute (AISI)

Type Number 304 - Stainless and Heat Resistant Steel

Type Number 316 - Stainless and Heat Resistant Steel

(Application for copies of Steel Product Manual should be addressed to the American Iron and Steel Institute, 150 East 42nd Street, New York, NY 10017.)

(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 General.

3.1.1 Material. The material shall be as hereinafter specified.

3.1.2 Identification. Each roll shall have a piece ticket (identification tag) attached to the selvage with not finer than 5-ply cotton string doubled to not less than 8 inches long or a plastic tag hanger 5-inch minimum length. The piece ticket shall be made of not less than 15 point paper stock and the finished surface shall not be calendered or pigmented to the degree which would cause the obliteration of printed, stamped, or typed markings. The piece ticket shall have a reinforced eyelet for attaching the tying cord or hanger and shall be legibly printed with water insoluble ink with the markings shown on figure 1. Entries on piece tickets (tags) shall be printed, stamped, or typed. The entries shall be complete and responsive with respect to the information required by the piece ticket legend (see figure 1). Hand lettered entries are permitted, but hand written entries are not permitted.

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3.1.3 Moth repellent. Fabrics shall be moth repellent treated with naphthalene flakes, except when fabrics have been mothproof treated in accordance with MIL-C-43665. The moth repellent shall be uniformly distributed over the fabric during the rolling operation. The moth repellent used shall not cause deterioration of the fabric and shall not cause bleeding or deterioration of the barrier material used when the fabric is wrapped and overwrapped.

3.2 Put-up. Put-up shall be level A or Commercial as specified (see 6.1).

3.2.1 Level A. Fabrics shall be put-up in roll form only. A piece shall be considered as a continuous length, free of splices. Unless otherwise specified in the material specification, the ends of each piece shall be stamped on the back side with the word "BACK". Unless otherwise specified in the material specification, the weight of each roll shall not exceed 125 pounds except when the weight of the specified yardage in one continuous piece exceeds 125 pounds. Unless otherwise specified in the material specification, more than one piece may be put-up on a roll.

3.2.1.1 Rolls. Fabrics shall be rolled open-width on a convolute or spiral-wound chipboard tube. Fabrics shall be rolled with the face to the inside in a manner to preclude uneven rolling which would cause bias or bowed filling, dimensional distortion, and creases or wrinkles. The tube shall have an outer cover of kraft paper glued to the surface or an equivalent smooth finish surface that will prevent the fibers of the chipboard from transferring to the fabric. The tube shall have a minimum wall thickness of 0.1875 inch with a minimum inside diameter of 1.5 inches. The ends of the tube shall be flush with or extend not more than 1 inch beyond each side of the maximum width of the rolled fabric (see figure 2). Rolls of fabric shall be restrained from unwinding by securing the fabric with cloth tape, cotton tape, stainless steel (AISI type number 304 or number 316, see 2.2) pins, or tin or nickel plated brass pins, aluminum clips, or plastic fasteners. Rolls 36 inches or less in width shall be secured approximately 1/6 the distance from each end. Rolls exceeding 36 inches shall have an additional fastening at the center of the roll.

3.2.2 Level C. Fabrics shall be put-up on rolls in accordance with the industry's standard practice.

3.3 Preservation. Preservation shall be level A or Commercial as specified (see 6.1).

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3.3.1 Level A. Each roll of fabric shall be wrapped with 70 pound minimum basis weight kraft paper conforming to A-A-203. The roll shall be wrapped so that the paper shall completely encircle the roll twice, and the width of the paper shall be sufficient to fold over and protect the ends of the roll. Gummed paper tape, 2-1/2 inches minimum width conforming to type III, grade C of PPP-T-45 or 2-inch tape conforming to PPP-T-60 shall be applied on the overlap seam the full length of the roll, across each end, and approximately 2-1/2 inches on the side of the roll opposite the overlap seam. Alternatively, in lieu of tape, adhesive may be applied on the overlap seam the full length of the roll. Strips of the tape shall be applied crosswise over the ends and shall extend a minimum of 2-1/2 inches along the length of the roll (see figure 2). Each roll of wrapped cloth shall contain a tear cord to permit ready removal of the paper wrap. A length of cotton wrapping or seine twine having a minimum breaking strength of 12 pounds shall be securely fastened to the chipboard tube prior to paper wrapping. The twine shall extend the full length of the roll and shall protrude through the wrapping at the other end to the extent necessary to permit easy grasping for tearing the paper.

3.3.1.1 Alternative unit packing of rolls.

a. Each roll of fabric shall be inclosed within a double-wall (2-ply) 100 percent kraft paper tube or bag fabricated of 70 pound basis weight (24 by 36-500) paper. The tube shall be of sufficient size to effect top and bottom closures specified herein. Bottom closure of the bag or tube shall be effected by folding 1-1/2 inches (single turnover) on one end and sewing approximately 3/4 inch from the bottom of the fold. The bag or tube bottom closure shall also be made by evenly folding a strip of paper tape over the open end and sewing through all walls of paper a minimum of 3/8 inch to a maximum of 3/4 inch from the bag end. The tape shall be a minimum 2-1/8 inches wide made from creped or uncreped kraft paper having a minimum basis weight of 70 pounds and shall extend across the bag face to protrude not less than 1/2 inch beyond both edges of the bag. Sewing thread shall be ticket No. 12, 4-ply, type IAI conforming to V-T-276. Stitching shall be spaced not less than 3 nor more than 6 stitches to the inch using a lock or chain stitch. Top closure shall be effected by folding over and securely sealing by the application of gummed paper tape 2-1/2 inches minimum width conforming to type III, grade C of PPP-T-45, 2-inch tape conforming to PPP-T-60, or by sewing as specified for bottom closure (see figure 2). Each roll shall be equipped with a tear cord as specified in 3.3.1.

or

b. Each roll of fabric shall be enclosed in a close-fitting polyethylene film tube with a minimum thickness of 0.004 inches. The tube shall be secured by heat-sealing, or by means of a mechanical tie (paper or plastic covered soft steel wire or aluminum band), or by plastic ties with a lock end.

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3.3.2 Commercial. Fabrics shall be preserved in accordance with ASTM D 3951.

3.4 Packing. Packing shall be level A, B, or Commercial as specified (see 6.1).

3.4.1 General. Only one style or type of container shall be used for the fabric of one description, width, weight, finish, and shade on any specific contract or order. The inside length of shipping containers shall be the length of the wrapped roll and the inside width of the container shall be the sum of the diameter of the wrapped rolls. Rolls packed per container shall be of a sufficient quantity to produce a full and even height pack. Insofar as quantity permits, shipping containers shall be uniform in size and shall contain approximately the same number of rolls.

3.4.2 Level A packing.

3.4.2.1 Rolls weighing 250 pounds or less. Rolls of fabric weighing 250 pounds or less, preserved as specified, shall be packed in snug-fitting wood boxes constructed, closed and strapped in conformance with overseas type, grade A, type 3 load of PPP-B-601; class II, type 3 load of PPP-B-591; or style A or B, class 2, type 3 load of PPP-B-576. Prior to packing, the rolls of fabric shall be overwrapped with one of the following waterproofed barrier materials:

(a) Type I, class 1, grade A of MIL-B-121.

(b) Barrier material with outside portion of the liner made from kraft paper having a basis weight of not less than 60 pounds per ream (24 by 36-500) creped in one direction with not less than 7 percent minimum stretch. The inside portion of the kraft paper shall be coated with polyethylene not less than 1-1/2 mils (22-1/2 pounds per ream) in thickness. The coating shall be uniformly applied to the kraft paper and shall be free from defects that may impair the function of the barrier material.

All seams and joints of the overwrap shall be sealed with minimum 2-inch width tape conforming to PPP-T-60. Alternatively, each shipping container may be provided with a type I, grade B case liner conforming to MIL-L-10547, except the barrier material shall be type I, class 1, grade A of MIL-B-121. The net weight of contents in shipping containers shall not exceed 250 pounds.

3.4.2.2 Rolls exceeding 250 pounds. When a single roll of fabric, preserved as specified, exceeds 250 pounds, it shall be overwrapped with one of the waterproof barrier materials specified in 3.4.2.1 and packed in bias-sewn tubing as specified in 3.4.2.2.1 or it shall only be packed in laminated tubing as specified in 3.4.2.2.2. When such outer coverings are used, no additional packing is required.

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3.4.2.2.1 Bias-sewn tubing. Bias-sewn tubing shall be made from cotton osnaburg cloth conforming to class 2 of CCC-C-429, jute (or kenaf) burlap cloth conforming to class 3 of CCC-C-467, or woven polypropylene fabric. Cotton osnaburg or burlap tubing shall conform to MIL-T-40625. Woven polypropylene tubing shall be made from minimum 2.1 ounces per square yard material and shall conform to the following requirements. Tensile breaking strength of the fabric shall be 90 pounds minimum in the warp direction and 70 pounds minimum in the filling direction. The fabric shall retain 70 percent of the original minimum tensile breaking strength in each direction after 150 hours exposure to ultraviolet light. The tubing shall have a continuous sewn side seam. Fabric edges not incorporated into a seam shall be finished by a selvage, a heat seal, or a heat cut to prevent unravelling. Stitching shall be straight and continuous. Ends of stitches shall be effectively secured. Seams formed at fabric edges which are not selvaged shall be compound seams conforming to type EFb-1, SSn-1, SSae-2 of FED-STD-751. Alternatively, the cotton, burlap, or polypropylene fabric tubing may be in bag form with one end presewn. Each open end of the tubing or bag shall be closed with two wire ties. At least 5 inches of surplus wrapping, measured from the center of the roll base, shall be gathered together with the first wire tie applied as close to the base of the roll as possible. The second wire tie shall be applied approximately 1 inch from the first wire tie with the twisted ends positioned opposite the ends of the first wire tie. Wire ties shall be not less than 6 inches long, 0.072-inch thick galvanized soft iron or steel wire with a 1/2-inch diameter formed eye at each end.

3.4.2.2.2 Laminated tubing (laminated tubing fabricated from 10 ounce burlap laminated to kraft paper coated with polyethylene). The burlap shall be continuously and uniformly laminated to the kraft paper with an average of not less than 60 pounds of asphaltum per ream (24 by 36-500). The kraft paper shall have a minimum basis weight of 40 pounds per ream (24 by 36-500), and the polyethylene coating shall have a minimum basis weight of 20 pounds per ream (24 by 36-500). The tubing shall be formed from one piece of material folded and the superimposed edges stitch-seamed with a single row of stitches. Prior to stitch seaming, the superimposed edges shall be folded back over the body of the material approximately 3/4 inch. The sewing line shall be indented approximately 3/8 inch from the edge of the tubing. The thread for seaming the tubing shall be type IA1 conforming to V-T-276. Needle thread shall be ticket No. 12, 4-ply, and looper thread shall be ticket No. 16, 4-ply. Stitching shall be spaced not less than 3 nor more than 6 stitches to the inch. Tubing shall be closed as specified in 3.4.2.2.1.

3.4.3 Level B packing.

3.4.3.1 Carload or truckload shipments. Rolls of fabric for carload (CL) or truckload (TL) shipments, prepared and put-up as specified in 3.1 and 3.2, shall not require individual wrappings when scheduled for sponging at the

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Government receiving and storage depot. Cars or trucks instead shall be lined with kraft or chipboard of sufficient weight or thickness to protect the fabric from damage during transit. Rolls of fabric not scheduled or required to be sponged at the Government receiving and storage depot shall be individually wrapped as specified in 3.3.1.

3.4.3.2 Less carload or less truckload shipments. Rolls of fabric for less carload (LCL) or less truckload (LTL) shipments shall be packaged as specified in 3.3.1 for acceptance by common or other carrier.

3.4.4 Commercial packing. Fabrics, preserved as specified, shall be packed in accordance with ASTM D 3951.

3.5 Marking.

3.5.1 Rolls. Each roll shall have a piece ticket (tag) affixed, containing identification information desired, as specified in 3.1.2 and figure 1.

3.5.2 Unit packed rolls. Each wrapped or overwrapped roll shall be clearly marked on the wrapping at the end where the identification tag is attached as follows:

"TAG HERE"

3.5.3 Shipping containers.

3.5.3.1 General. In addition to the marking requirements specified below for specific shipments, the following precautionary markings shall be applied so as not to interfere with the shipment markings.

3.5.3.1.1 Shipping container inscription. Each shipping container shall have the inscription "DO NOT STAND ON END" stenciled in 1-inch black block letters on each side or side panel.

3.5.3.2 Civil agencies. In addition to any special marking required by the contract or order, shipments shall be marked (including bar code marking, see figure 1) in accordance with FED-STD-123 or ASTM D 3951, as applicable.

3.5.3.3 Military requirements. In addition to any special marking required by the contract or order, shipments shall be marked (including bar code marking, see figure 1) in accordance with MIL-STD-129 or ASTM D 3951, as applicable. The covered roll identification marking shall include the fabric piece number. Both the gross and net yardage shall be indicated on all shipping containers. In addition, each shipping container shall be clearly marked on both side faces with the legend "USE NO HOOKS" in letters not less than 1-1/2 inches in height and also with the corresponding symbol as outlined

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in MIL-STD-129. If the required exterior markings for rolls cannot be applied because of restricted marking area, markings shall be shown on a tag securely affixed to one end of the roll.

3.5.3.3.1 Special marking. Only wrapped rolls going into storage shall have, in addition to the required marking, a label or tag (as appropriate), with the identification information thereon, securely attached to the outside of one end.

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 the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

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

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

4.2.1.1 Component and material certification. Components and materials listed below shall be accepted on the basis of a contractor's certification of compliance with the indicated requirements:

Characteristic	Requirement paragraph	Test method
Barrier material:		
Basis weight of kraft paper	3.4.2.1	Method 5022 <u>1</u> /
Stretch of creped kraft paper	3.4.2.1	Method 2038 <u>1</u> /
Basis weight of polyethylene	3.4.2.1	Method 5022 <u>1</u> /

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Characteristic	Requirement paragraph	Test method
Polypropylene tubing:		
Material identification	3.4.2.2.1	Laboratory analysis
Weight	3.4.2.2.1	Method 5041 <u>2/</u>
Breaking strength	3.4.2.2.1	Method 5100 <u>2/</u>
Ultraviolet light resistance	3.4.2.2.1	Method 5804 <u>2/</u>
Edge finish	3.4.2.2.1	Visual
Laminated tubing:		
Asphaltum weight per ream	3.4.2.2.2	-
Basis weight of kraft paper	3.4.2.2.2	Method 5022 <u>1/</u>
Polyethylene coating basis weight	3.4.2.2.2	-
Burlap weight	3.4.2.2.2	Method 5040 <u>2/</u>

1/ FED-STD-1012/ FED-STD-191

4.2.2 Examination of the end item for preservation, packing, and marking.

The preserved, packed, and marked products shall be inspected for conformance in accordance with the material specification or contract. When the material specification does not contain inspection provisions for the packaging, the following shall apply:

An examination shall be made to determine compliance with the put-up, preservation, packing, and marking requirements of this specification. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container or roll fully packaged except that it need not be closed. Defects of closure listed below shall be examined on shipping containers or rolls fully packaged. The lot size shall be the number of shipping containers or rolls in the end item inspection lot. The inspection level shall be S-2 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 2.5.

<u>Examine</u>	<u>Defects</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application. Bar code marking not machine readable.
Materials	Any component missing, damaged, or not as specified.

<u>Examine</u>	<u>Defects</u>
Piece ticket (identification tag)	Missing.
Workmanship	Inadequate application of components, such as cloth or polypropylene fabric wraps and container, incomplete closure of container flaps, loose strapping, improper taping, inadequate nailing and stapling, incomplete closure of roll, inadequate securing or sealing of wrapping materials, insecure sewing, or loose wire ties. Fabric not rolled with face to inside. Bulged or distorted container or roll.
Net weight	Net weight not as specified (see 3.4.2).
Moth repellent (when applicable)	Improperly applied or missing.
Seams of poly- propylene fabric wrapping	Not type specified. Stitching not as specified.

5. PACKAGING

5.1 As specified herein.

6. NOTES

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

- (a) Title, number and date of this specification.
- (b) Selection of applicable levels of put-up, preservation and packing (see 3.2, 3.3, and 3.4).
- (c) Information required on the piece ticket (identification tag) (see 3.5.1).

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MILITARY INTERESTS:

Custodians

Army - GL
Navy - SA
Air Force - 99

Review Activities

Army - MD, SM
Navy - AS, NU
Air Force - 82
DLA - GS

User Activities:

Navy - CG, MC

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - FSS
HHS - HSM

PREPARING ACTIVITY:

Army - GL

Project No. PACK-0739

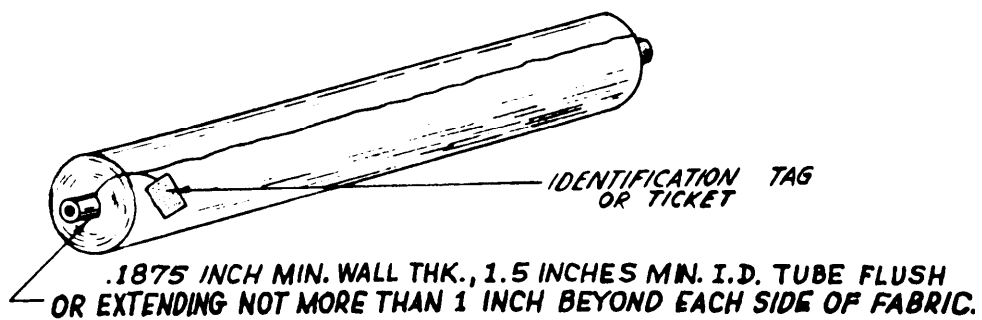
EXAMPLE IS APPROXIMATE TICKET SIZE DESIRED

○		
PROCUREMENT AGENCY		
NATIONAL STOCK NUMBER		
ITEM	WIDTH	
SHADE NUMBER		
WOOL/FIBER CONTENT		
CONTRACTOR		
FINISHING MILL		
CONTRACT/ORDER NUMBER AND DATE		
SPECIFICATION NUMBER	LOT NUMBER	PIECE NUMBER
BALE/ROLL NUMBER (FOR U.S. INSPECTION USE)		
PIECE LENGTH	UNSPONGED LENGTH	
REGULAR ___ <input type="checkbox"/>	_____ YARDS	
SHORT ___ <input type="checkbox"/>	_____ YARDS	
SPONGED LENGTH	WIDTH	DATE
_____ YARDS	_____ INCHES	

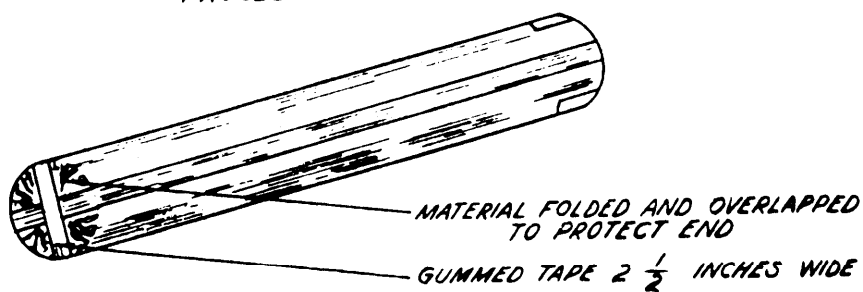
NOTE: Bar Code Marking shall be placed on reverse side of the piece ticket.

FIG 1 PIECE TICKET

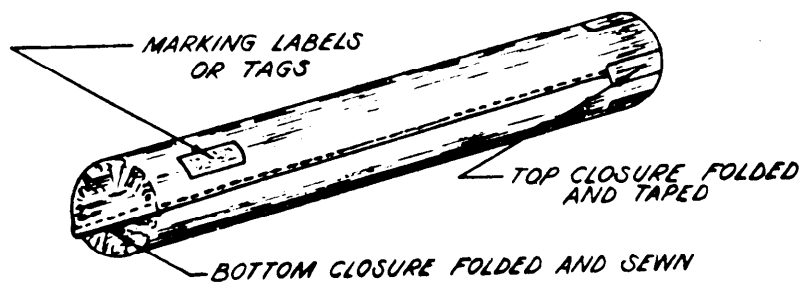
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PROCESSING METHOD



BASIC WRAPPING METHOD



BASIC WRAPPING METHOD - ALTERNATE

Figure 2. Processing and wrapping of rolls.

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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.

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