

PPP-P-1135B

September 28, 1984

SUPERSEDING

PPP-P-1135A

May 8, 1967

FEDERAL SPECIFICATION

PACKAGING OF DUCK FABRICS

(COTTON; SYNTHETIC FIBER; COTTON-SYNTHETIC FIBER BLENDS)

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 duck 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:

V-T-276	- Thread, Cotton
UU-P-268	- Paper, Kraft, Wrapping
CCC-C-429	- Cloth, Osnaburg, Cotton
CCC-C-467	- Cloth, Burlap, Jute (or Kenaf)
PPP-T-45	- Tape, Gummed, Paper, Reinforced and Plain, for Sealing and Securing
PPP-T-60	- Tape, Packaging, Waterproof

NO DELIVERABLE DATA
REQUIRED BY THIS DOCUMENT

AREA PACK

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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 specification, 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, standards, 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-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.)

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.

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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 St., 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.

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

3.2.1 Level A put-up. Fabrics shall be put-up in roll form only. Unless otherwise specified in the material specification, the weight of each roll shall be not less than 150 pounds nor more than 330 pounds. Weights in excess of 330 pounds per roll will be permitted when approved by the procuring activity (see 6.1). Unless otherwise specified in the material specification, more than one piece may be put-up on a roll. A piece shall be considered as a continuous length, free of splices. Fabrics shall be rolled open-width on a convolute or spiral-wound chipboard tube. The tube shall have an outer cover of kraft paper

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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 un-winding 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 Commercial put-up. 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).

3.3.1 Level A preservation. Each roll of fabric shall be wrapped with 60 pound minimum basis weight kraft paper conforming to grade B of UU-P-268. The roll shall be wrapped so that the paper shall completely encircle the roll at least once with a minimum overlap of 3 inches, 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, shall be applied on the overlap seam the full length of the roll, across each end, and extend along the side opposite the overlap seam 2-1/2 inches. Strips of 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).

3.3.1.1 Alternative level A preservation.

a. Each roll of fabric shall be inclosed within a double-wall (2-ply) paper tube or bag fabricated of 70 pound minimum basis weight kraft paper conforming to grade B of UU-P-268. 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 may 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 to protrude not less than 1/2 inch beyond both edges of the bag. Sewing thread shall be ticket No. 12, 4-ply, type IAl 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).

or

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b. Each roll of fabric shall be inclosed 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.

3.3.2 Commercial preservation. 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 Level A packing. Rolls of fabric, preserved as specified, shall be overwrapped with waterproof barrier material as specified in 3.4.1.1 and packed in bias sewn tubing as specified in 3.4.1.2; or shall only be packed in laminated tubing as specified in 3.4.1.3.

3.4.1.1 Waterproof barrier material. The rolls of fabric shall be overwrapped with one of the following waterproofed barrier materials:

(a) Type I, grade A, class 1, 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 a minimum 2-inch wide tape, conforming to type IV, class 1 of PPP-T-60.

3.4.1.2 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 ultra-violet 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

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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 galvanized soft iron or steel wire with a 1/2-inch diameter formed eye at each end.

3.4.1.3 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 or 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 1A1 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 3.4.1.2.

3.4.2 Level B packing. Rolls of fabric, preserved as specified, shall be packed only in bias sewn tubing or bag form wrapping with wire-tie closure, as specified in 3.4.1.2.

3.4.3 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 (see 6.1), 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"

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

3.5.4 Military requirements. In addition to any special marking required by the contract or purchase order, shipments shall be marked (including bar code marking, see figure 1) in accordance with FED-STD-129 or ASTM D 3951, as applicable. The covered roll identification marking shall include the fabric piece number and indicate both the gross and net yardage. In addition, the outer cloth covering shall be clearly marked with the legend "USE NO HOOKS" and "DO NOT STAND ON END" in letters not less than 1-1/2 inches in height and also with the corresponding symbol as outlined 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. The covered roll identification marking shall include the fabric piece number and indicate both the gross and net yardage. The legend "USE NO HOOKS" and "DO NOT STAND ON END" along with the corresponding symbol as outlined in MIL-STD-129 shall be clearly marked on the outer cloth covering. 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.

3.5.4.1 Marking area. Prior to marking, the tubing or bag wrap of each roll shall have applied a smooth even coating of sand colored paint or lacquer which shall be as large as necessary to provide a background for the prescribed marking.

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.

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4.2.1 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.

4.2.1.1 Component and material certification. Component 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	3.4.1.1	Method 5022 <u>1/</u>
Stretch of creped kraft paper	3.4.1.1	Method 2038 <u>1/</u>
Basis weight of polyethylene	3.4.1.1	Method 5022 <u>1/</u>
Polypropylene tubing (when used):		
Material identification	3.4.1.2	Laboratory analysis
Weight	3.4.1.2	Method 5041 <u>2/</u>
Breaking strength	3.4.1.2	Method 5100 <u>2/</u>
Ultraviolet light resistance	3.4.1.2	Method 5804 <u>2/</u>
Edge finish	3.4.1.2	Visual
Laminated tubing:		
Asphaltum weight per ream	3.4.1.3	-
Basis weight of kraft paper	3.4.1.3	Method 5022 <u>1/</u>
Polyethylene coating basis weight	3.4.1.3	-
Burlap weight	3.4.1.3	Method 5040 <u>2/</u>

1/ FED-STD-101

2/ 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 roll fully packaged. The lot size shall be the number of rolls in the 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.

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<u>Examine</u>	<u>Defects</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application. Roll wrap marking area not prepared as specified. Bar code marking not machine readable.
Materials	Any component missing, damaged, or not as specified.
Piece ticket (identification tag)	Missing.
Workmanship	Inadequate application of components, such as paper, barrier material, cloth or polypropylene fabric and laminated tubing, incomplete closure or roll, inadequate securing or sealing of wrapping materials, insecure sewing, or loose wire ties. Bulged or distorted roll.
Weight	Weight not as specified (see 3.2.1).
Seams of bias-sewn tubing 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 procurement documents:

- a. Title, number, and date of this specification.
- b. Whether weights exceeding 330 pounds per roll are permitted (see 3.2.1).
- c. Selection of applicable levels of put-up, preservation, and packing (see 3.2, 3.3 and 3.4).
- d. 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 - NU
Air Force - 82
DLA - GS

User activities

Navy - CG, MC

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - FSS
HHS - HSM
VA - OSS

PREPARING ACTIVITY:

Army - GL

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EXAMPLE IS APPROXIMATE TICKET SIZE DESIRED

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(FRONT SIDE)

○	
PROCUREMENT AGENCY	
NATIONAL STOCK NUMBER	
ITEM	WIDTH
CONTRACTOR	
FINISHING MILL #	
FIBER CONTENT	
CONTRACT/ORDER NUMBER AND DATE	
SPECIFICATION NUMBER	ROLL NUMBER
REGULAR <input type="checkbox"/> SHORT <input type="checkbox"/> LENGTH PIECES	LOT NO.
TOTAL YARDAGE	
TURN TO REVERSE SIDE	

* GREIGE MILL WHEN PURCHASE
IS FOR GREIGE CLOTH

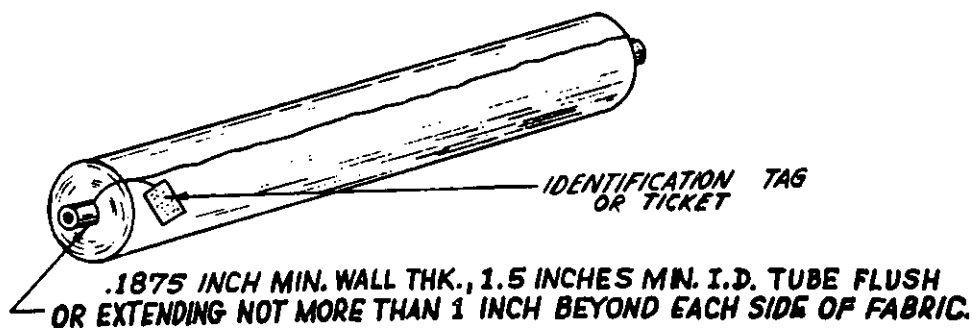
(REVERSE SIDE)

○	
PIECE NO. **	YARDS
1 _____	_____
2 _____	_____
3 _____	_____
(LIST PIECE NUMBERS IN ORDER ROLLED, FROM THE TUBE OUT)	
Place Bar Code in this Space	YARDS REMOVED
	NEW TOTAL LENGTH

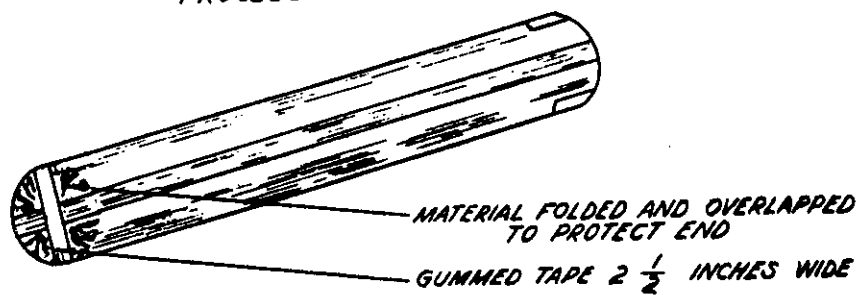
** PRINTING OPTIONAL FOR SINGLE
-PIECE ROLLS.

FIG 1 PIECE TICKET

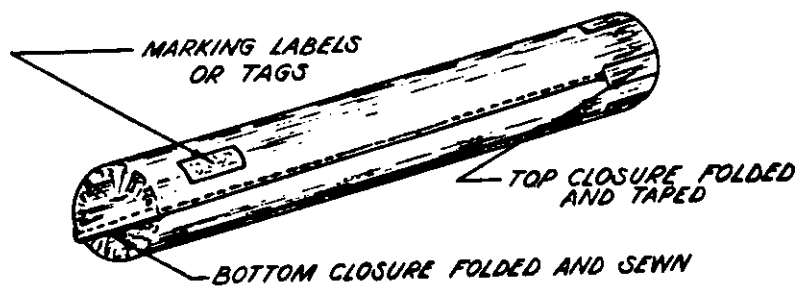
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PROCESSING METHOD



BASIC WRAPPING METHOD



BASIC WRAPPING METHOD - ALTERNATE

Figure 2. Processing and wrapping of rolls.

