

PPP-B-1714
August 14, 1973

FEDERAL SPECIFICATION

BAGS, SHIPPING: WOVEN POLYPROPYLENE

This specification was 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 shipping bags made from woven polypropylene for use in domestic and overseas shipment of supplies and materials.

1.2 Classification.

1.2.1 Types. The bags covered by this specification shall be of the following types as specified (see 6.2):

Types:

- I - Plain weave.
- II - Plain weave with liner.
- III - Open mesh.

2. APPLICABLE DOCUMENTS

2.1 The following specifications and standards, 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:

- L-P-378 - Plastic sheet and Strip, Thin Gage, Polyolefin.
- QQ-S-781 - Steel, Strapping, Flat.
- PPP-F-320 - Fiberboard, Corrugated and Solid, Sheet Stock (Container Grade), and Cut Shapes.
- PPP-S-760 - Strapping, Nonmetallic (and Connectors).

Federal Standards:

- Fed. Std. No. 123 - Marking for Domestic Shipment (Civil Agencies).
- Fed. Test Method Std. No. 191 - Textile Test Methods.
- Fed. Std. No. 751 - Stitches, Seams, and Stitchings.

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. 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 and other Federal Specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, DC, Atlanta, Chicago, Kansas City, MO, Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, WA.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

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 suppliers in connection with specific procurement functions should be obtained from the procuring agency or as directed by the contracting officer.)

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Laws and Regulations:

21 CFR 121 - Federal Food, Drug, and Cosmetic Act and Regulations Promulgated Thereunder.

(The Code of Federal Regulations (CFR) and the Federal Register (FR) are for sale on a subscription basis by the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402. When indicated, reprints of certain regulations may be obtained from the Federal Agency responsible for the issuance thereof.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids shall apply.

National Motor Freight Traffic Association, Incorporated Agent:

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Association, Inc., Tariff Order Section 1616 P Street, N.W., Washington, DC 20036.)

Uniform Classification Committee, Agent:

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

American Society for Testing and Materials (ASTM) Standards:

- Method D 737 - Test for Air Permeability of Textile Fabrics.
- Method D 1682 - Tests for Breaking Load and Elongation of Textile Fabrics.
- Method D 1683 - Test for Seam Breaking Strength of Woven Textile Fabrics.

(Application for copies should be addressed to the American Society for Testing and Materials, 1616 Race Street, Philadelphia, PA 19103.)

Technical Association for the Pulp and Paper Industry (TAPPI) Standards:

T503-SU-67 - Coefficient of Static Friction-Slide Angle.

(Application for copies should be addressed to the Technical Association of the Pulp and Paper Industry, One Dunwoody Park, Atlanta, GA 30341.)

3. REQUIREMENTS

3.1 Domestic and overseas use. Woven polypropylene bags manufactured in conformance with this specification are for use in the domestic and overseas shipment (coastwise ocean shipment and shipments abroad) of the commodities listed in tables IV and V. The bag construction used for a specific commodity shall be not less than the construction specified for the bag number in table I. For commodities not covered by tables IV and V, bag construction shall be an agreement between purchaser and seller.

3.2 Materials. The materials used in the construction of bags shall be new first quality material. Materials shall be FDA approved when bags are to be used for packaging food commodities.

3.2.1 Resin. Base resin shall be 100% polypropylene containing inhibitors for resistance to ultraviolet light.

3.2.2 Resistance to ultraviolet light. Materials shall resist ultraviolet light deterioration on exposure in a weatherometer. The material shall retain 70% of its original minimum tensile strength in each direction after specified exposure periods shown in tables II and III.

3.2.3 Fabric weights. Fabric weights shall be as specified in tables II and III.

3.2.4 Tensile strengths. Tensile strength of fabrics shall be as specified in tables II and III.

3.2.5 Color. Color of fabrics shall be as specified by the purchaser. A colored fabric identification mark inserted by the fabric manufacturer is required.

3.2.6 Odor or flavor. Materials used in the construction of bags for food commodities shall not impart a foreign odor or flavor to the contents.

3.2.7 Air permeability. The fabric must permit a minimum and maximum air flow in cubic feet per minute per square foot when tested in accordance with paragraph 4.2.1.1. The allowable air permeabilities are as specified in table II.

3.2.8 Finish. Where specified the fabric shall be finished on both sides by coating or other suitable method to prevent slippage, raveling, and fibrillation. All ingredients of the surface finishes shall used on fabrics to package food commodities shall be FDA approved.

3.2.8.1 Slippage. Where surface finish is required to prevent slippage, the fabric shall be tested in accordance with TAPPI testing procedure T503-SU-67. Minimum slide angles for applicable fabrics used in type I and type II bags are specified in table II.

3.2.9 Printability. The fabric must accept and retain printing ink and it shall not rub or flake off to a degree where its legibility is impaired under normal handling.

3.3 Bag construction.

3.3.1 Type I.

3.3.1.1 Seams. Unless otherwise specified, side seams shall be SSd-1, SSn-1, SSp-1, SSa-1 or SSp-1 with overstitch. Bottom seams shall be SSa-1, SSn-1, SSp-1, SSa-1 or SSp-1 with overstitch. Seam references are in accordance with Federal Standard No. 751. Unless otherwise specified, bags are to be turned so that seams are on the inside. The tensile strength of any seam shall not be less than 60 percent of the tensile strength of the fabric when tested in accordance with ASTM Method D-1683.

3.3.1.2 Sewing thread. The thread shall be a nominal 1000 denier polypropylene yarn with a breaking strength of 5.0 grams per denier. Cotton or cotton-high wet strength modulus rayon blended thread with an equivalent breaking strength of the polypropylene thread can be used as alternates. Unless otherwise specified, the color shall be natural or white.

3.3.1.3 Stitches. Stitches per inch of seams (side and bottom) shall be no less than 4-1/2, nor more than 5-1/2 per inch and shall be of the two thread chain type in accordance with Federal Standard 751, type 401 or 504 (for over-edges) or equivalent. Stitching shall be no nearer to fabric edge or folded edge than one-half inch, and shall traverse full width and length of bag.

3.3.1.4 Selvage. The fabric forming the top or bottom of the finished bag shall be a tucked selvage, or a natural selvage containing not less than the number of ends prevalent in the body of the fabric. Alternatively the selvage may be heat cut and formed a minimum of one inch wide with a minimum of 20 warp ends per inch.

3.3.2 Type II.

3.3.2.1 Bags shall be constructed as type I, except that bag shall have a polyethylene liner per paragraph 3.4.

3.3.3 Type III.

3.3.3.1 Seams. Same as for type I bags except that SSc-1 seam can also be used for side and bottom.

3.3.3.2 Sewing thread. Same as for type I bags.

3.3.3.3 Stitches. Same as for type I bags.

3.3.3.4 Selvage. The fabric forming the top and bottom of the finished bag shall have a natural or tucked selvage.

3.4 Polyethylene liner. Unless otherwise specified in the contract or order, polyethylene used for liners (type II bags) shall conform to L-P-378. Size of the liner shall be at least as wide as the alternate width and a minimum of 3 inches longer than the bag in which the liner is to be inserted. Unless otherwise specified, polyethylene used for liners shall be 0.0040 \pm 0.0008 inch thick.

3.5 Size (capacity). The capacity of the bags shall be such as to contain the amount and kind of material specified in the contract or order. It shall be the responsibility of the purchaser of the bag to approve the material and the dimensions of the bag. The seller shall furnish for test purposes such samples as may be reasonably necessary.

3.6 Printing or stenciling, and marking. All shipping bags shall be legibly printed or stenciled with the marking specified in the contract or order (see 6.2). Unless otherwise specified, the ink used shall be black, nonfading, and water resistant.

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3.7 Bag manufacturer's identification. Unless otherwise specified, each bag shall be marked with specification number, bag type, bag number (when applicable), bag maker's name, identification symbol, code, or trade name. All markings shall be placed in a conspicuous position not less than 5-1/2 inches from the bottom of the bag in letters not less than 5/16 inch high. Bags procured for USDA shall have the manufacturer's identifying symbols, code or trade name placed on record with the Textile Bag Manufacturer's Association and the Kansas City ACSC Commodity Office.

3.8 Workmanship. Bags and liners shall be accurately and well made and free from defects which may affect serviceability, and shall conform to the minimum quality assurance provisions of section 4 of this specification.

TABLE I. Types I, II and III bags

Bag No.	Minimum Weight/Sq. Yd. Ounces	Minimum Count		Finish
		Yarn	g/Inch	
		Warp	Fill	
PP-1	2.1	12 x 6		Anti-skid
PP-2	2.2	12 x 7		Anti-skid
PP-3	2.4	12 x 8		Anti-skid
PP-4	2.6	12 x 8		-
PP-5	2.8	12 x 8		Anti-skid
PP-6	3.0	12 x 8		Anti-skid
PP-7	2.0	12 x 5 open mesh		-
PP-8	1.3	8 x 5 open mesh		-

NOTE: Fabric shall be 36 or 40 inches wide unless otherwise specified. Contracting officer may designate fabric width and bag size required. Contracting officer will also designate whether bags are to be supplied with or without liners. Intended use recommendations paragraph 6.1 shall be adhered to.

TABLE II. Fabric for types I and II bags

Minimum Count, Yarn Per Inch	Type Bag	Fabric Weight* oz/sq. yd.	Finish Requirements	Minimum Tensile lbs.		70% Retained Strength hr. of U.V.	Air Permeability Cu/ft./min./sq.ft.		Minimum Slide Angle (degrees)
				Warp	Fill		Min.	Max.	
12 x 6	I - II	2.1	Anti-skid	75	60	200	10	100	30
12 x 7	I - II	2.2	Anti-skid	90	70	200	10	100	30
12 x 8	I - II	2.4	Anti-skid	100	80	200	10	100	30
12 x 8	II	2.6	-	105	105	400	-	100	-
12 x 8	I - II	2.8	Anti-skid	105	105	200	10	100	30
12 x 8	I - II	3.0	Anti-skid	115	115	200	10	100	30

TABLE III. Fabric for type III bags

12 x 5 (open mesh)	2.0	60	42	100	**	**	**
8 x 5 (open mesh)	1.3	40	40	100			

*The finished fabric shall weigh not less than specific weights shown.

**Air permeability, slide angle, finish requirements not applicable for type III fabrics.

TABLE IV. Commodities packed in woven PP shipping bags (minimum acceptable bag requirements)

Commodity	Civilian		Overseas		Military	
	*Fabric Width, Inches	Capacity, Lbs.	50	100	50	100
Aluminum sulfate	40		PP-3			
Ammonium phosphate	40		PP-3	PP-4-6		
Ammonium sulfate	40		PP-3	PP-4-6		
Barytes	40		PP-3			
Boric Acid	36		PP-6	PP-6		
Cement, portland or high early #94	36		PP-4-6			
Cement, refractory #94	36		PP-6			

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TABLE IV. Commodities packed in woven PP shipping bags (minimum acceptable bag requirements)

		Civilian Domestic			Military Overseas	
Commodity	*Fabric width, inches	Capacity, Lbs.		Overseas 100	Capacity, Lbs.	
		50	100		50	100
Clay, fire and refractory	40		PP-3			
Clay, kaolin and air floated	40		PP-3			
Clay, other than air floated	40		PP-3			
Copper sulfate (Penta)	40		PP-3			
Diatomaceous earth			PP-4-6			
Fertilizer, mixed 80/ 100 pounds	40		PP-3-4	PP-4		
Fullers earth, granular	40		PP-3	PP-4		
Glues and pastes, dry	40		PP-3			
Graphite				PP-4-6		
Gypsum	40		PP-3			
Pumice	36		PP-3			
Shells, oyster, crushed	36		PP-3	PP-3		
Soap, pure, powdered, granular and flake or chips	40		PP-2	PP-3		
Sodium chloride (rock salt)	36		PP-3			
Sodium chloride (fine)	36		PP-3			
Sodium nitrate	40		PP-3			
Stearic acid, (flake or powdered) 150 pounds	36		PP-3	PP-4		
Sulfur, refined, ground	40		PP-2	PP-4		
Superphosphate, granular	36		PP-3-4			
Superphosphate, pulverized	36		PP-3-4			
Wax, chipped, slab or crude also 200 pounds	36		PP-3	PP-4		

*Recommended fabric width changes from standard 36" and 40" widths are at option of purchasing officer.

TABLE V. Commodities packed in woven PP shipping bags (minimum acceptable bag requirements)

Commodity	Weight LBS./BU.	Fabric Width, Inches	Domestic Capacity, 100 lbs.	Export Capacity, 100 lbs.
Barley	48	36	PP-3	PP-5
Beans-dried	60	36	PP-5	PP-5-6
Bran-shorts	20	40	PP-2	PP-3
Cabbage		40	PP-7	
Carrots		40	PP-8	
Coffee beans roasted		40	PP-3	
Corn-cracked	56	36	PP-3	PP-5
Shelled			PP-3	PP-5
Feed-mill	25	40	PP-2	PP-3
Mixed		40	PP-2	PP-3
Flour		36	PP-3	PP-5
Grits		40	PP-3	PP-5

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TABLE V. Commodities packed in woven PP shipping bags (minimum acceptable bag requirements) (cont'd)

Commodity	Weight LBS./BU.	Fabric Width, Inches	Domestic Capacity, 100 lbs.	Export Capacity, 100 lbs.
Hominy		40	PP-2	PP-3
Meal - Alfalfa		40	PP-2	PP-3
Bone		40	PP-3	PP-5
Corn	48	36	PP-3	PP-5
Cottonseed	88	40	PP-2	PP-3
Fish		40	PP-2	PP-3
Glandular		40	PP-2	PP-3
Linseed	56	40	PP-2	PP-3
Oat	32	40	PP-3	PP-5
Soy bean	52	36	PP-3	PP-5
Malt	88	40	PP-2	PP-3
Milo	50	40	PP-3	PP-5
Oats	32	40	PP-2	PP-3
Onions	57	36	PP-1-7	PP-1-7
Peanuts				
Shelled	60	36	PP-3	PP-5
Whole	22	40	PP-2	PP-3
Peas	60	36	PP-5-6	PP-5-6
Potatoes	60	36	PP-1	PP-2-3
Rice	44	36	PP-3	PP-5
Rye	56	36	PP-3	PP-5
Salt	50	36	PP-3	PP-5
Seeds-grass				
Vegetables		40	PP-2	PP-3
Starch		40	PP-3	PP-5
Sugar		36	PP-3	PP-5
Wheat	60	36	PP-3	PP-5

*Recommended fabric width - changes from standard 36" and 40" widths are at option of purchasing officer.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities 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.

4.2 Sampling and inspection for acceptance. Sampling for inspection shall be performed in accordance with the provisions set forth in MLL-STD-105, except where otherwise indicated herein.

4.2.1 Inspection of components and materials. In accordance with 4.1, the supplier is responsible for insuring that components and material used were manufactured, tested, and inspected in accordance with the requirements of referenced subsidiary specifications and standards to the extent specified herein, or, if none, in accordance with this specification.

4.2.1.1 Testing of components.

4.2.1.1.1 Testing of woven polypropylene materials. Woven polypropylene materials described in this specification shall be tested in accordance with the applicable test methods of Fed. Test Method Std. No. 191, ASTM, and TAPPI as indicated below. The sample unit and the sample size shall be the specimen and the number of specimens, respectively, as indicated in the applicable test method. Failure of the average of the test results on all sample units to meet the specified requirements for the characteristic being tested shall be cause for rejection of the component or the involved end item.

Tests	Method
Width	5020
Weight	5041
Count (texture)	5050
Ultraviolet	5804
Permeability	ASTM D 737
Tensile strength	ASTM D 1682 (Grab Method)
Seam tensile strength	ASTM D 1683
Slide angle	TAPPI T503-SU-67

4.2.2 Inspection of the end item.

4.2.2.1 Examination of the end item. The end items shall be examined in accordance with the classification of defects set forth in 4.2.2.1.1, 4.2.2.1.2 and 4.2.2.1.3. The inspection levels and acceptable quality levels (AQL's) expressed as defects per hundred units shall be as shown in 4.2.2.1.4. The lot size for determining the sample size shall be expressed in units of bags for examination under 4.2.2.1.1 and 4.2.2.1.2 and in units of bales or shipping containers for examination in 4.2.2.1.3.

4.2.2.1.1 Examination of the end item for defects in material, construction, appearance, and workmanship shall be in accordance with table VI. The sample unit for this examination shall be one bag and liner when applicable.

TABLE VI. Examination of the end item			
Examine	Defect	Major	Minor
Material	Not as specified.	X	
Construction and appearance	Not new material.	X	
	Any hole, tear, or frayed threads.	X	
	Not "open-mouth" top construction unless otherwise specified.	X	
	Not as specified.	X	
Stitching	Not as specified.	X	
Liner (when applicable)	Not heat sealed properly.	X	
Workmanship	Bag assembly not uniform.		X
	Stitching not uniform and complete over entire area of seam.		X
	Not clean.		X
Identification	Omitted, incomplete, incorrect, illegible; or improper size, location, sequence, or method of application. (See 3.6).		X

4.2.2.1.2 Examination of the end item for dimensional defects, shall be in accordance with table VII. The sample unit for this examination shall be one bag and liner when applicable.

TABLE VII. Examination for dimensional defects		
Examine	Defect	Major
Bag		
Overall dimensions	Length or width not within - 2 percent, + 5 percent of specific dimensions	X
Liner (when applicable)	Does not fit bag uniformly.	X
	Less than 3 inches longer than bag.	X

4.2.2.1.3 Examination of preparation for delivery. An examination shall be made to determine that packing and marking comply with the requirements of section 5. The sample unit shall be one shipping bale or container fully packed selected just prior to the strapping or closing operation. Shipping bales or container fully prepared for delivery shall be examined for strapping or closure defects. Classification of defects shall be in accordance with table VIII.

TABLE VIII. Examination of preparation for delivery		
Examine	Defect	Major
Contents	Number of bags per bale or container less than specified or as indicated.	X
	More than one size of kind of bag per bale or container	X
Packing	Not level specified; not in accordance with contract requirements.	X
	Overwrapping, as applicable, missing or not as specified.	X
	Closures, as applicable, not accomplished by specified methods or materials.	X
	Strapping or cords, as applicable, loose or not number required.	X
Marking	Incomplete, missing, or not as specified.	X
Weight	Weight exceeds requirements.	X
Condition	Torn or otherwise damaged bale or container which may result in loss or injury to contents.	X

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4.2.2.1.4 Inspection levels and acceptable quality levels (AQL's) for examinations. The inspection levels for determining sample size and acceptable levels expressed in defects per 100 units shall be as follows:

Examination paragraph	Inspection Levels	AQL's	
		Major	Total
4.2.2.1.1	S-4	2.5	6.5
4.2.2.1.2	S-2	2.5	
4.2.2.1.3	S-4	4.0	

NOTE: When the end item consists of bags with liner, the inspection levels and AQL's shall apply to the bag and liner individually and separately.

4.3.3 Breaking strength of cord (see 5.1.2.1). Test for breaking strength of cord shall be in accordance with Fed. Test Method Std. No. 191, method 4106.

5. PREPARATION FOR DELIVERY

5.1 Packaging and packing. Packaging is not required.

5.1.1 Packing. Packing shall be level A, B or C as specified in the contract or order (see 6.2).

5.1.1.1 Level A. A uniform number of bags as specified (see 6.2) of one type and size shall be packed in a bale. The gross weight shall not exceed 200 pounds. The bale shall be overwrapped with .002 inch thick polyethylene film and strapped or shrink wrap packing may be used as an alternate. Bales shall be compressed prior to overwrapping and strapping or shrink wrap packing.

5.1.1.1.1 Overwrapping material. The plastic film shall conform to L-P-378, type I, class 1, grade A, finish 1.

5.1.1.1.2 Strapping. The bale shall be closed by rolling the side edges of the overwrap to form a seal which shall be held in place by steel or plastic straps. A minimum of four flat straps shall be applied girthwise to each bale. The two outside straps shall be placed approximately 4 inches from each end, and the intermediate straps shall be placed equidistant from each other and the end straps. The steel straps shall conform to QQ-S-781 and shall be not less than 1/2 inch by 0.020 inch. The steel straps shall be coated to prevent corrosion. The plastic straps shall conform to PPP-S-760, type II, and shall not be less than 1/2 inch by 0.030 inch. If steel strapping is used, fiberboard pads minimum size 3 inches by 3 inches, shall be used where a strap crosses an edge of the bale. Fiberboard shall conform to PPP-F-320, type SF, class weather resistant.

5.1.1.1.3 Shrink wrap film. Shrink wrap film shall conform to L-P-378, type IV, class 1, grade A, finish 1. Shrink film of sufficient thickness and strength shall be used consistent with the weight of the bale.

5.1.1.1.4 Weight of the bale. Bales weighing over 70 pounds (the maximum permissible weight of manual handling) shall be prepared to accommodate material handling equipment. The prepared bales shall be compatible to the material handling equipment commonly used by the supplier, transportation system, and the user.

5.1.2 Level B. A uniform number of bags as specified (see 6.2), of one type and size shall be packed per bale. Unless otherwise specified, the gross weight shall not exceed 200 pounds. Each bale shall be securely fastened with either cord or strapping. Bales shall be compressed prior to fastening with cord or strapping.

5.1.2.1 Cord. A minimum of four cords, two in each direction shall be securely fastened around the bale so as to give maximum support to the bale. The baling cord shall have a breaking strength of not less than 1.75 times the weight of the bale when tested in accordance with 4.3.3.

5.1.2.2 Strapping. A minimum of three flat steel or plastic straps shall be used to bind the bale. A strap shall be placed approximately 4 inches from each end and the third strap shall be positioned equidistant from the end straps. The steel straps shall conform to QQ-S-781, class A or B, and shall be not less than 1/2 by 0.015 inch. The plastic straps shall conform to PPP-S-760, type II, and shall be not less than 1/2 by 0.025 inch. If steel strapping is used, fiberboard pads, minimum size 3 inches by 3 inches, shall be used where a strap crosses an edge of the bale. Fiberboard shall conform to PPP-F-320, type SF, class weather resistant.

5.2 Marking.

5.2.2 Military requirements. In addition to any special marking required by the contract or order, each bale or container shall be marked in accordance with MIL-STD-129.

6. NOTES

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 (see 1.2.1).
- (c) Quantity.
- (d) Whether packing shall be level A, B or C (see section 5).
- (e) Number of bags per bale (see 5.1.1.1 and 5.1.2).
- (f) Size (capacity by weight or volume of material to be packed) (see 3.5).
- (g) Printing required (see 3.6).
- (h) Marking required (see section 5).

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APPENDIX

10. REQUIREMENTS FOR CLOSURES

10.1 After filling, the top closure of bags shall be made by one of the following methods:

10.1.1 Types I and II bags. Types I and II bags shall be closed after filling by sewing a seam not less than 1 inch from top of fabric and parallel to the top. Seam shall be 3Sa-1 in accordance with Federal Standard 751. Tensile strength of the seam shall not be less than 60 percent of the tensile strength of the fabric when tested in accordance with ASTM Method D-1683.

10.1.2 Type III bags. Type III bags shall be closed by a draw cord or tape or by sewing a seam not less than 1 inch from top of fabric and parallel to the top. Seam shall be 3Sa-1 in accordance with Federal Standard 751. Tensile strength of the seam shall not be less than 60 percent of the tensile strength of the fabric when tested in accordance with ASTM Method D-1683.

10.1.3 Polyethylene bag liner. After the combined bag is filled, the top of the polyethylene bag liner shall be gathered together and tied or top may be heat sealed. The bag shall be closed as specified in 10.1.1.

20. INSPECTION AND TEST PROCEDURES

20.1 Inspection. Bags shall be inspected to determine compliance with requirements of this appendix. Sampling shall be conducted in accordance with the provisions of MIL-STD-105.

20.1.1 Examination of top closure of bags. Classification of defects shall be indicated below. Sample unit for this examination shall be one filled and closed bag. Lot size shall be expressed in terms of bags. The sample size for examination shall be the number of sample units indicated by inspection level S-3, and the acceptable quality level (AQL) expressed in defects per 100 units shall be 4.0 for major defects and 10.0 for total defects.

Examine	Examination for closure	
	Defect	Major Minor
Closure		
Type I and II bags	Not sewn closure.	X
	Stitching less than 1 inch from top of fabric.	X
	False seam.	X
	Not closed.	X
Type III bags	Draw cord or tape closure not as specified.	X
	Not sewn closure as specified.	X
	Stitching less than 1 inch from top of fabric.	X
	False seam.	X
Poly bag liners	Not closed.	X
	Not tied or heat sealed as specified.	X

MILITARY CUSTODIANS:

Army - GL (MCA)
Navy - SA
Air Force - 84

User activities:

Navy - MC, YD

CIVIL AGENCY COORDINATING ACTIVITIES:

AGR- ASCS
STATE - AID

Preparing activity:

GSA-FSS

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