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INTERIM FEDERAL SPECIFICATION

DROP CLOTHS, PAINTERS, PLASTIC, COTTON CLOTH (DUCK)

This Interim Federal Specification was developed by the General Services Administration, Federal Supply Service, Washington, DC 20406, based upon currently available technical information. It is recommended that Federal agencies use it in procurement and forward recommendations for changes to the preparing activity at the address shown above.

1. SCOPE AND CLASSIFICATION

1.1 <u>Scope</u>. This specification covers requirements for clear plastic, and unbleached cotton duck dropcloths primarily intended for protection of property against paint droppings and weather conditions (see 6.1).

1.2 Classification.

1.2.1 <u>Types and classes</u>. Dropcloths covered by this specification shall be of the following types and classes, as specified (see 6.2):

Type I - Plastic.

Class 1 - Fire-retardant.

Class 2 - Untreated (not fire-retardant).

Type II - Cotton.

1.2.2 Sizes.

1.2.2.1 <u>Type I</u>. Unless otherwise specified plastic dropcloths covered by this specification shall be of the following size:

9 feet X 12 feet.

1.2.2.2 <u>Type II</u>. Cotton duck dropcloths covered by this specification shall be of the following sizes:

6 feet X 8 feet. 10 feet X 12 feet. 12 feet X 12 feet. 12 feet X 15 feet 15 feet X 15 feet. 20 feet X 20 feet

FSC 8340

NOTE: A minus tolerance of 1.0 percent on each dimension of type I and II dropcloths is permissable. Any plus tolerance is acceptable.

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. V-T-285 - Thread, Polyester. V-T-295 - Thread, Nylon

L-P-378 - Plastic Sheet and Strip, Thin Gauge, Polyolefin.

CCC-C-419 - Cloth, Cotton, Duck, Unbleached, Plied Yarns (Army and Numbered).

PPP-B-636 - Boxes, Snipping, Fiberboard

Federal Standards:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil Agencies).

Fed. Std. No. 751 - Stitches, Seams, and Stitching.

(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 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.

National Motor Freight Traffic Association, Inc., Agent:

National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Associations, 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.)

NFPA No 701 - National Fire Code.

(Copies may be obtained from the National Fire Protection Association, 60 Battermarch Street, Boston, MA 02110).

- 3. REQUIREMENTS
- 3.1 <u>Preproduction sample</u>. When specified, a sample of the finished commodity shall be submitted to the contracting officer for approval before commencing production.
 - 3.2 Material.
 - 3.2.1 Plastic, polyethylene.
- 3.2.1.1 <u>Fire-retardant</u>. Plastic for type I, class 1 dropcloths shall have a film thickness ot 0.0020 to 0.0030 inch conforming to type I, class 1, grade A, finish 2 of L-P-378 except that it shall be provided with fire-retardant inhibitor meeting the requirements of flame resistance as specified herein. Requirements for heat seal strength, length, width, and form as contained in L-P-378 do not apply.
- 3.2.1.2 <u>Untreated</u>. Plastic for type I, class 2 dropcloths shall have a film thickness of 0.0020 to 0.0030 inch conforming to type I, class 1, grade A, finish 2 of L-P-378, except for requirements of heat seal strength, length, and form which do not apply.
- 3.2.2 Cotton duck cloth. Cotton duck cloth for type II dropcloths shall be in accordance with the applicable requirements and quality provisions of type III, Army duck, as required in CCC-C-419, except as hereinafter specified.
 - 3.2.2.1 Weight. The weight shall be not less than 9.25 ounces per square yard.
 - 3.2.2.2 Yarn ply. The yarns for the warp and filling shall be not less than 2 ply.
- 3.2.2.3 <u>Yarns per inch</u>. There shall be 52 yarns per inch in the warp direction and 40 yarns per inch in the filling direction, except that a minus tolerance of 3 yarns per inch for either the warp or filling will be permitted provided there is a total of not less than 92 yarns per square inch, (warp and filling).
- 3.2.2.4 <u>Breaking strength</u>. The breaking strength shall be not less than 125 pounds in the warp direction and not less than 110 pounds in the filling direction.
- 3.2.2.5 <u>Holes</u>. A hole shall be classified as a defect when it consists of an aperature or opening through the entire thickness of the cloth and is clearly noticeable at a distance of 3 feet.
 - 3.2.3 Thread. Sewing thread used for hemming type II dropcloths shall be 4 ply cotton thread

conforming to the quality of IA1, ticket NO. 12 of V-T-276. Nylon or polyester sewing thread of equivalent size and of at least the equal in strength as the cotton thread, will be acceptable provided that they meet V-T-295 and V-T-285 respectively.

- 3.3 Flame resistance. The flame resistance of type I, class 1 plastic dropcloths shall be of such character that the plastic shall not continue flaming for more than 2 seconds after removal of the test flame from the plastic film. The vertical spread of the flame and afterglow as indicated by the length of char or destroyed material, measured from the bottom of the sample to a point where all material is sound and in original condition shall not exceed an average length of 5-1/2 inches and each individual sample 6-1/2 inches, when tested in accordance with 4.4. Portions of film which break or drop from the test specimen shall not continue to flame.
 - 3.4.1 Type I. Type I plastic dropcloths shall be one continuous piece, full length by the width.
- 3.4.2 <u>Type II</u>. Type II cotton duck dropcloths shall be fabricated by use of cotton duck cloth, 3.2.2, measuring not less than 36 inches in width, using a minimum number of pieces in fabricating each size dropcloth.
- 3.4.2.1 Hems. Hems for the edges of type II dropcloths, except for selvage edges which do not require hems, shall be not less than 1/4 gage formed by using sewing thread, 3.2.3, and accomplished by use of stitch type 401 and stitching type EFb-1 in accordance with standard No. 751. Stitching ends, thread breaks, and two or more skipped stitches shall be overstitches not less than 1 inch by use of stitch type 301 of Fed. Std. No. 751. Stitching ends may be locked by bartacking 1/2 to 3/4 inch with a 28 stitch bartack in lieu of overstitching. Splicing of pieces of cloth to form the required size of dropcloths shall be accomplished by use of stitch type 401 and seam type LSa-2 of Fed. Std. No. 751. All stitching shall have 5 to 8 stitches per inch.
- 3.5 <u>Marking</u>. Plastic dropcloths shall be marked for identification purposes with a permanent marking material inscribing legible letters not less than 1/2 inch in height. Type I, class 1 dropcloths shall be marked with the word "NONFLAMMABLE", and type I, class 2 dropcloths shall be marked with the word "FLAMMABLE". When specified, dropcloths shall be marked with the inscription "U.S. GOV." in 1/2 inch legible lettering using a permanent marking material.
- 3.6 <u>Workmanship</u> The end item shall conform to the quality and grade of product established by this specification, and the occurrence of defects shall not exceed the applicable quality levels.
 - 4. QUALITY ASSURANCE PROVISIONS
- 4.1 <u>Responsibility for inspection</u>. 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 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 that supplies and services conform to prescribed requirements.
- 4.2 <u>Preproduction sample inspection</u>. When a preproduction sample is required, inspection and testing of the preproduction sample, see 3.1, shall be made of the completed items for all provisions of this specification applicable to end product examination and tests.
- 4.3 <u>Inspection for acceptance</u>. Sampling and inspection shall be performed in accordance with MIL-STD-105, except as otherwise specified hereinafter.
 - 4.3.1 <u>Inspection of components and materials</u>. The quality assurance provisions for components

and materials, except as otherwise required by this specification, shall be in accordance with the applicable specifications and standards referenced herein. When there is a conflict in quality assurance provisions, this specification shall govern.

4.3.2 Inspection of the end item.

4.3.2.1 <u>Examination of the end item</u>. Dropcloths of the same type, size, and class, offered at the same time shall be considered a lot for the purpose of inspection. The sample unit shall be one dropcloth. The defects found during examination shall be classified in accordance with the list shown in tables I and II.

TABLE I. Examination for visual characteristics

	Classificatio		cation
Examine	Defect	Major	Minor
Cloth dropcloth	Holes, cuts, or tears, any smash, or open places clearly visible at normal		
	inspection distance Not marked with "U.S. GOV.", when	X	
Thickness of plastic	required	V	X
Plastic dropcloth	Less than or more than required Color, texture and finish not uniform	X	х
riastic diopelotii	Pin-hole, porous, tear, hole, crack, blister, wrinkles, fold, foreign		^
	matter, fish eyes and gels	X	
	Edges containing nicks or cuts	X	
	Objectional odor	×	
	Not class required	X	
	Class 1 not marked "NONFLAMMABLE"	X	
	Class 2 not marked "FLAMMABLE"	×	
Seams and stitching			
(type II)	Open seams 1/2 inch or more		X
	NOTE: A seam shall be classified as		
	open when two or more stitches joining		
	a seam are broken or when two or more		
	continuous skipped stiches or run-offs		
	occur. On double stitched seams a seam		
	shall be considered open when either		
	one or both sides of seam are open		
	Stitching ends not overstitched or bartacked		X
	Wrong seam or stitch type	X	
	Loose or tight stitch tension		×
	Two or more stitches per inch less than		
	specifi ed	X	
	Stitching gage not as specified		X
	Needle chews	X	
	Not required rows of stitching	X	
Cleanness	Grease or oil stains clearly noticable		X

TABLE II. Examination for dimensions

		Classification	
Examine	Defect	Major	Minor
Overall dimensions	Smaller than nominal dimensions less		
	applicable minus tolerance		X
	Smaller than nominal dimensions less		
	double or more than the applicable		
	minus tolerances	X	

4.3.2.2 <u>Inspection levels and acceptable quality levels</u>. Acceptable quality levels, expressed in percent defectives, and inspection levels shall be as follows:

Inspection level	AQL
II	4.0 Major Defectives 10.0 Major and Minor
S-3	Dectives combined 10.0 Major
	25.0 Major and Minor Dectives combined

4.3.3 Examination of preparation for delivery requirements. An examination shall be made to determine whether the packaging, packing, and marking requirements of Section 5 of this specification are complied with. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully prepared for delivery with the exception that it need not be sealed. Defects of closure listed below shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 4.0 defects per hundred units.

Examine	Defect
Markings	Omitted; incorrect; illegible; of improper size, location, sequence or method of application.
Materials	Component missing, damaged or not conforming to the applicable specification or requirements stated herein.
Workmanship	Inadequate application of components, such as incomplete closure of cloth wrapping, loose stitching or strapping, inadequate nailing or stapling. Bulging or distortion of containers. Number per container is more or less than required.
Contents	Quantity per container is more or less than required. Gross weight exceeds the requirements of the box specification.

^{4.4 &}lt;u>Test</u>. Tests shall be conducted in accordance with the test requirements contained in applicable subsidiary specifications and tests referenced herein.

4.4.1 Flame resistance test. Five specimens of single thickness shall be subjected to surrounding

atmospheric conditions of 73.5 \pm 2°F, and 50 \pm 4 percent relative humidity for not less than 4 hours. Each specimen shall be cut 2 inches by 10 inches from each sample unit, at five equidistant locations across and dimension of the dropcloth and subjected to the following tests:

The specimen shall be supported in a vertical position by an appropriate holder which shall be shielded from air currents. A luminous flame approximately 1 inch long shall be applied to the lower end of the specimen for 12 seconds and then withdrawn. The duration of the flaming specimen from the time of removal of the flame until self-extinquishment shall be recorded. Following the cessation of flaming and afterglow of the specimen, the length of char or material destructed shall be determined. It shall be noted whether portions of fiber which break or drip from the specimen continue to flame.

- 4.4.1.1 <u>Certificate of compliance</u>. When specified, a certificate of compliance for flame resistance will be acceptable for requirements stated herein. When a certificate of compliance is submitted the Government reserves the right to check test such items to determine the validity of the certification.
- 4.4.1.2 In case of dispute of the flammability of the plastic, the "small scale test" as described in NFPA No. 701 of the National Fire Code shall be employed. The results of this test method shall be final determination of the flammability of the product (see 2.2).
 - 5. PREPARATION FOR DELIVERY
 - 5.1 Packaging. Packaging shall be level A, B, or C, as specified (see 6.2).
- 5.1.1 <u>Levels A and B</u>. Each dropcloth shall be folded and individually packaged in a kraft or plastic bag. The bag shall be closed by staples, heat sealing, or pressure sensitive tape. When heat sealed bags are utilized, the bags shall be provided with a 1/2 inch maximum hole in one corner to allow the excess air to escape.
 - 5.1.2 <u>Level C</u>. Dropcloths shall be packaged in accordance with the suppliers commercial practice.
 - 5.2 Packing. Packing shall be level A, B, or C, as specified (see 6.2).
- 5.2.1 <u>Level A</u>. Dropcloths of one type and class shall be packed in a box conforming to PPP-B-636, class weather-resistant. The box shall be closed, water-proofed and strapped in accordance with the appendix to the box specification.
- 5.2.2 <u>Level B</u>. Unit packages in quantities as specified in table III shall be packaged in a box conforming to PPP-B-636, class domestic. The box shall be closed in accordance with the appendix to the box specification.

TABLE III. Quantity per shipping container

ederal Stock Number	Quantity per shipping container	
8340-205-1910	5	
8340-205-1911	5	
8340-205-1861	5	
8340-205-1862	5	
8340-205-1863	2	
8340-205-1864	2	
8340-068-7908	48	

5.2.3 <u>Level C</u>. Dropcloths shall be packed to insure carrier acceptance and safe delivery at destination at the lowest rates, in containers complying with the rules and regulations applicable to the mode of transportation.

5.3 Marking.

- 5.3.1 <u>Civil agencies</u>. In addition to marking required by the contract or order the unit package and shipping container shall be marked in accordance with Fed. Std. No. 123.
- 5.3.2 <u>Military agencies</u>. In addition to marking required by the contract or order the unit package and shipping container shall be marked in accordance with MIL-STD-129.

6 NOTES

- 6.1 <u>Intended use</u>. Type I, class 1, dropcloths are recommended for use in protecting all items, except floors, from paint droppings and for general protection and atmospheric conditions of interior and exterior items where a fire hazard prevails. Type I, class 2, dropcloths are intended for use as general protection and against atmospheric conditions where no fire hazard prevails. Type II dropcloths are recommended for use in the protection of floors from paint droppings because of the absorbent qualities of cotton, and may be used for the general protection of other items.
- 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, size, and class required (see 1.2).
 - (c) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- 6.3 Level B packaging and packing should be used by ordering agencies only when shipment is known to be made to a holding supply depot or warehouse from which partical shipment will be made to ultimate consumer.

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - PBS