

L-P-375C
April 23, 1970
SUPERSEDING
Fed. Spec. L-P-375b
June 10, 1964

FEDERAL SPECIFICATION

PLASTIC FILM, FLEXIBLE, VINYL CHLORIDE

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

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers two type of flexible vinyl plastic film.

1.2 Classification.

1.2.1 Types and classes. Vinyl plastic film shall be of the following types and classes, as specified (see 6.2):

- Type I - For use in a temperature range of 0 deg. to 130 deg F.
(-17.8 deg. to 54.4 deg. C.)
 - Class 1 - Colorless
 - Class 2 - Colored

- Type II - For use in a temperature range of -40 deg. to 130 deg. F.
(-40 deg. to 54.4 deg. C.)
 - Class 1 - Colorless
 - Class 2 - Colored

2. APPLICABLE DOCUMENTS

2.1 The following specifications and standards, of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

Federal Specifications:

- PPP-B-576 - Box, Wood, Cleated, Veneer, Paper overlaid
- PPP-B-585 - Boxes; Wood, Wirebound
- PPP-B-601 - Boxes; Wood, Cleated-Plywood
- PPP-B-621 - Boxes; Wood, Nailed and Lock-Corner
- PPP-B-636 - Box, Fiberboard
- PPP-D-723 - Tape; Pressure Sensitive Adhesive, Waterproof,
for Packaging and Sealing
- PPP-T-76 - Tape; Pressure Sensitive Adhesive, Paper, Water
Resistant

Federal Standards:

- Fed-Std-123 - Marking for Domestic Shipment (Civilian Agencies)
- Fed-Std-191 - Textile Test Methods
- Fed-Std-406 - Plastics; Methods of Testing

(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, D.C. 20402.

(Single copies of this specification and other product specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Service Administration Regional Offices in Boston, New York, Washington, D.C., Atlanta, Chicago, Kansas City, Mo., Forth Worth, Denver, San Francisco, Los Angeles, and Seattle, Washington.

(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.
- MIL-STD-147 - Palletized and Containerized Unit Loads 40" x 48"
Pallets, Skids, Runners, or Pallet-Type Base.

(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 otherwise indicated, the issue in effect on date of invitations for bids or request for proposal shall apply.

National Classification Board:

National Motor Freight Classification

(Application for copies shall be addressed to the American Trucking Associations, Inc., Attn: Tariff Order Section, 1616 P Street, N.W., Washington, D.C. 20036.)

Uniform Classification Committee:

Uniform Freight Classification

(Application for copies shall be addressed to the Uniform Classification Committee, Room 202 Union Station, 516 W. Jackson Blvd., Chicago, Illinois 60606.)

(Technical society and technical 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 Standard sample. When specified, the finished item shall be equal to or better than the standard sample with respect to all characteristics for which the standard is referenced (see 3.6, 3.7, 6.2, and 6.4).

3.2 Material. The vinyl film covered by this specification shall be suitably formulated from virgin, chlorine-bearing vinyl resin. Only phosphate or phthalate or both phosphate and phthalate plasticizers shall be used (see 6.3). The use of water soluble compounding ingredients is prohibited.

3.3 Physical requirements.

3.3.1 Type I. Film shall meet the physical requirements of table I when tested as specified in 4.3.2.

[retrieve Table I: Physical requirements of type I film]

[retrieve Table II: Physical requirements of type II film]

3.4 Bondability. The film shall be capable of being bonded to itself by commercially common heat or electronic sealing devices and methods. The strength of such bonds in either the machine for transverse direction of the film shall be not less than 65 percent of the breaking strength of the film. Bonded samples shall be tested as specified in 4.3.2 not less than 14 days after the date of bonding.

3.5 Dimensions.

3.5.1 Rolls. The width shall be as specified in the contract or order (see 6.2). A plus tolerance of 1/2 inch with no minus tolerance will be permissible. Width shall be measured on the manufacturer's rolls. The film shall be furnished in continuous lengths of not less than 50 yards.

3.5.2 Flat cuts. Width and length or other applicable dimensions of cuts, including tolerances, shall be as specified in the contract or order (see 6.2).

3.6 Color.

3.6.1 Type I and type II, class 1. The film shall be uniformly colorless and clear. Slight pigmentation will be permissible to neutralize any natural yellow tint (see 3.1 and 6.4).

3.6.2 Type I and type II, class 2. The film shall be pigmented to produce the color specified in the contract or order. The color shall be uniform (see 3.1 and 6.4).

3.7 Finish. The film shall have a smooth, dull matte finish on both sides, unless otherwise specified in the contract or order (see 3.1 and 6.4).

3.8 Odor. Film shall be free from objectionable odors. Determination of odor shall be made on samples freely exposed to circulating air at 75 deg. +/- 5 deg. F (23.9 deg. +/- 2.8 deg. C.) for not less than 24 hours.

3.9 Workmanship. The film shall be clean, well finished and free from dirt, oil, foreign matter, rough or sharp edges, scratches, scuffs, cracks, creases, blisters, bubbles, pimples, undispersed resin, pits, tears, cuts, holes (other than allowable pinholes.)

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 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.

4.4.1 Certificates of compliance. A certificate of compliance shall be furnished by the supplier to the contracting officer stating that the film supplied complies with the requirements specified in paragraph 3.2. 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 Inspection. Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated hereinafter.

4.2.1 Inspection of materials and components. In accordance with 4.1 above, components and materials shall be inspected and tested in accordance with all the requirements of referenced specifications, drawings and standards unless otherwise excluded, amended or qualified in this specification or applicable purchase documents.

4.3 Inspection of the end item.

4.3.1 Examination of the end item. The end item shall be examined for the defects in the applicable subparagraphs at the inspection levels and acceptable quality levels (AQL's) set forth in 4.3.1.7. The lot shall be expressed in units of rolls, packages of sheets, or flat cuts randomly selected for examinations in 4.3.1.1, 4.3.1.2, 4.3.1.3, 4.3.1.4, and in 4.3.1.5 and in units of pallets for the examination in 4.3.1.6.

4.3.1.1 Examination of the end item for defects in appearance, construction, assembly, and workmanship. The sample unit shall be eight (8) consecutive years full roll width for the examination for defects within rolls. The sample unit shall not be taken from the first or last convolutions of the roll. The sample unit shall be five sheets randomly selected from a package for the examination for defects in sheets (flat cuts). Nor more than three sample units shall be examined from any one roll or one package of sheets, as applicable. Both sides of the material shall be examined. Defects of each type other than workmanship (serviceability) type shall be scored only once within each sample unit for rolls and for flat cuts. Defects of the workmanship serviceability type shall be scored once for each year or sheet in which they appear.

<u>Examine</u>	<u>Defect</u>
Class	Other than as specified.
Color	
(a) Class 1	Lack of clarity. Other than colorless. Nonuniformity.
NOTE:	Slight pigmentation will be permitted to neutralize any natural yellow tint.
(b) Class 2	Other than specified. Variation of shade and color from that of standard sample. Non-uniformity.
Finish	Not a smooth, dull matte finish on both sides (see 3.7). Variation of finish from that of standard sample.
Workmanship	
Appearance	Any dirt, oil, spot, stain, discoloration and foreign matter affecting appearance.
Serviceability	Any deep gouge or scratch. Any holes (other than allowable pinholes). Any rough or sharp edges. Any cuts, blisters, bubblers, tears, cuts, scuffs, cracks or creases. Any area having a number or type of pimples or pits, undispersed resin, which does not compare favorably with the standard. Any chipping.

4.3.1.2 Examination of the end item for defects in dimensions. The end item shall be examined for dimensional defects. The sample unit for this examination shall be one sheet full size or one complete roll.

<u>Examine</u>	<u>Defect</u>
Size of sheets	Any variation other than tolerances specified in contract or order.
Width of roll	Any width less than specified.

Any width exceeding that specified by more than 1/2 inch.

Length of roll

Not as specified.

Thickness

Any thickness deviation greater than applicable tolerances specified in table I and II.

4.3.1.3 Examination of the end item for defects in packaging of sheets and unrolling of rolls. The sample unit shall be one package of flat cut sheets or one complete roll, as applicable.

Examine

Defect

Unrolling of rolls

Not suitably restrained from unwinding.
Material blocks to the extent that unrolling causes damage or tearing, rendering material unserviceable.
Any piece less than 50 yards.
Tube diameter less than 3 inches.

Separation of sheets

Flat cut sheets not slip sheeted.
Sheets block to the extent that separation causes damage or tearing, rendering material unserviceable.

4.3.1.4 Examination of the end item for average contents. The sample unit shall be one roll or one package of flat cut sheets as applicable. The average count per package for sheets (flat cuts) and the average length per roll shall not be less than specified or indicated.

4.3.1.5 Examination of preparation for delivery. An examination shall be made to determine whether packaging, packing, and markings comply with the requirements of section 5. The sample unit for this examination shall be one shipping container, fully packed, selected just prior to the closing operation. Shipping containers fully prepared for delivery shall be examined for closure defects.

Examine

Defect

Packaging

Not level specified; not in accordance with contract requirements.
Sheets or rolls (as applicable) not unit wrapped and packaged as specified.
Packaging not as specified; closures not accomplished by specified or required methods or materials.

Packing

Not level specified; not in accordance with contract requirements.

Any nonconforming component, component missing or damaged.
 Container not as specified; closure not accomplished by specified or required methods or materials.
 Inadequate application of components, such as incomplete closure, container flaps, loose or inadequate strappings.
 Bulged or distorted container.

Count	Number of packages of sheets or rolls less than specified or indicated quantity.
Weight	Weight of contents exceeds specified requirements.
Markings	Interior or exterior markings (as applicable) omitted, illegible, incorrect, incomplete or not in accordance with contract requirements.
Precautionary markings	Missing or not as specified (see 5.4.3).

4.3.1.6 Examination for palletization. An examination shall be made to determine whether the palletization complies with section 5. Defects shall be scored in accordance with the list below. The sample unit shall be one palletized unit load fully prepared for delivery. The lot shall be the number of palletized unit loads in the end item inspection lot.

<u>Examine</u>	<u>Defect</u>
Finished dimension	Length, width or height exceeds specified maximum requirement.
Palletization	Not as specified. Pallet pattern not as specified. Interlocking of loads not as specified. Wood caps (when applicable) not positioned as specified. Load not bonded with required straps as specified.
Weight	Exceeds maximum load limits.
Marking	omitted; incorrect; illegible; of improper size, location, sequence or method of application.

4.3.1.7 Inspection levels and acceptable quality levels (ACQL's) for examinations. The inspection levels, for determining the sample size, and the acceptable quality levels (AQL's) expressed in defects per one hundred units shall be as follows:

<u>Examination paragraph [1]</u>	<u>Inspection levels</u>	<u>AQL's</u>
4.3.1.1	I	2.5
4.3.1.2	S-2	2.5
4.3.1.3	S-2	2.5
4.3.1.4	S-2	---
4.3.1.5	S-2	4.0
4.3.1.6	S-1	6.5

[1] The same rolls or packages of sheet or sheets as applicable of the specified material

shall be used for examination under 4.3.1.2 through 4.3.1.4 inclusive and shall be within the rolls or packages of sheets randomly selected for examination under 4.3.1.1.

4.3.2 Testing of the end item. The end item shall be tested for the applicable characteristics as indicated in table III for each lot presented for delivery. The lot shall be expressed in units of sheets, when sheets are specified, or in units of linear yards when rolls are specified. The sample unit shall be 21 square feet of film. The sample size shall be as shown below. The lot shall be unacceptable if one or more sample units fail to meet any test requirements specified.

<u>Lot size</u>	<u>Sample size</u>
800 or less	2
801 to 22,000	3
22,001 and over	5

[retrieve Table III. Instructions for Testing of the End Item]

4.4 Tests.

4.4.1 Standard conditioning. Unless otherwise specified herein or applicable test method, samples for test shall be conditioned at a temperature of 73.5 deg. +/- 2 deg. F. (23.1 deg. +/- 1.1 deg. C.) and a relative humidity of 50 +/- percent for a period of not less than 16 hours.

4.4.2 Thickness. The gage used for the measurement of thickness shall be a dead weight type equipped with a dial graduated to read directly to 0.0001 inch. The presser foot shall be circular with a diameter of 0.25 +/- 0.01 inch. The presser foot and moving parts connected therewith shall be weighted so as to apply a total load of 3 +/- 0.1 ounce to the specimen. The presser foot and anvil surface shall be plane to within 0.0001 inch and parallel to each other within 0.0001 inch.

4.4.3 Tensile strength, ultimate elongation, and bonding strength. Tensile strength, ultimate elongation, and bonding strength shall be determined as specified in method 1013 of FED-STD-406. The test specimens shall be 1 inch wide. For breaking (bonding) strength of bonded seam, the seam shall be at the center of the specimen and perpendicular to the center line. The specimen shall be prepared for peel stress (bonding strength) by placing

one strip of film (centered) on top of another and sealing one end, leaving the free ends to be gripped in the jaws of the testing machine.

4.4.4 Tear resistance, Graves. Tear resistance shall be determined as specified in method 1121 of FED-STD-406, using the pendulum-type or constant rate of jaw separation testing machine; figure 1121 of this method shall be for the specimen itself rather than for the die. A jaw separation of 2 inches shall be used. Tear shall be reported as pounds per single thickness of film torn.

4.4.5 Tear resistance, Elmendorf. Elmendorf tear resistance shall be determined as specified in method 5132 of FED-STD-191.

4.4.6 Pinholes and cracks. Examination for in holes shall be made by testing the film under air pressure. Three specimens measuring 13 inches in diameter shall be individually tested on the test jig shown in figure 1. The film specimen shall be placed on the holder and the plate collar shall be bolted thereon. Care shall be taken to insure a leak tight fit. The specimen shall be inflated by air to a height of 3 +/- 1/4 inch (dome shaped) and water poured on top of the specimen to completely cover the specimen by at least 1/2 inch of water. The air pressure shall be maintained for 5 minutes and the specimen examined for leakage evidenced by a steady stream of air bubbles coming through the film.

4.4.7 Stiffness, Clark. Stiffness shall be determined as specified in method 5204 of FED-STD-191, after a conditioning period of not less than a half hour at the specified temperatures. Samples shall be cut in the machine direction only. All tests shall be conducted in a still atmosphere.

4.4.8 Extraction in soapy water. The extraction test shall be performed by immersing a weighed sample of film, 4 inches square, in 400 cc of a 1 percent soap solution for 24 hours at 122 deg. +/- 2 deg. F (50 deg. +/- 1.1 deg. C.) and determining weight loss. The sample shall have been previously conditioned for 3 hours at 122 deg. +/- 2 deg. F. (50 deg. +/- 1.1 deg. C.) cooled to room temperature in a desiccator, weighed immediately upon removal, and then placed in the test solution. Individual samples shall be tested in covered, one-pint glass containers. The samples must be held in such a manner that the entire surface is exposed to the test solution. Upon removal after the test period, the sample shall be gently wiped with a soft cloth or tissue paper. It shall then be reconditioned and weighed in the same manner as was done initially. The soap used shall be a neutral toilet soap. All weighings shall be made to the nearest 0.0005 gram.

4.4.9 Blocking. Blocking shall be determined as specified in method 5872 of FED-STD-191 except that the test shall be performed at 158 deg. +/- 2 deg. F. (70 deg. +/- 1.1 deg. C.) for a period of 48 hours.

4.4.10 Volatility. The volatility tests shall be performed according to method 6081 in FED-STD-406 (see 6.5).

4.4.11 Resistance to weathering. A sample of film shall be exposed as specified in method 5670 of FED-STD-191 for a period of 100 hours.

4.4.12 Cold crack. The cold crack tests shall be performed at the required temperatures as specified in method 5874 of FED-STD-191, after a conditioning period of not less than 1 hour at the test temperatures. After the test, the samples shall be examined visually at room temperature for cracking as specified in 4.4.6.

4.4.13 Lacquer lifting. The lacquer lifting test shall be conducted by placing a 3-inch by 5-inch sample of the vinyl film over a lacquered panel of equal or larger dimensions. The film shall be covered with a flat glass plate which is then weighted with a 2-pound weight. The film shall remain exposed for 14 days.

4.4.13.1 Preparation of test panels. The lacquered panels shall be prepared by applying two medium coats of the following lacquer to thin carbon sheet steel, the surface of which is smooth and properly-prepared to insure freedom from grease and foreign material.

	Parts by weight
Nitrocellulose, 1/2 sec.	16.0
Dibutyl phthalate	4.0
Ethyl alcohol	10.6
Toluene	40.0
Butyl acetate	16.0
Ethyl acetate	8.6
Butyl alcohol	4.8

The panels shall be air dried for a minimum of 2 days prior to use.

4.4.14 Crocking. Crocking, both dry and wet, shall be determined as specified in method 5650 of FED-STD-191.

4.4.15 Dimensional stability. Dimensional stability shall be determined by exposing a 10 inch square sample of film to 212 deg. +/- 2 deg. F. (100 deg. +/- 1.1 deg. C.) for 30 minutes +/- 1 minute in a circulating air oven. The sample shall be cut from the center of the film sheet with a template accurate to +/- 0.02 inches in all directions. The sample shall be placed between sheets of heavy wrapping paper, 15 inches square, lightly dusted with talc. The paper sheets shall be clipped or stapled together, care being taken not to hold or restrict the test sample. The sandwich shall then be placed horizontally in an oven. After the oven exposure, the sample shall be cooled to room temperature and measured to the nearest 0.01 inch along both central axes.

5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A or C as specified (see 6.2).

5.1.1 Level A.

5.1.1.1 Rolls. Vinyl chloride continuous film shall be uniformly wound on a convolute or spiral wound paperboard tube with an inside diameter of not less than 3 inches. Each roll shall be restrained from unwinding and wrapped with at least one thickness of its own material, so as to provide a waterproof wrap. The wrap shall be lapped approximately 6 inches and secured the entire length of the roll with 3-inch minimum width pressure-sensitive adhesive tape conforming to type optional of PPP-T-60 or PPP-T-76. The width of the wrapper shall be such that the wrapper can be folded over the ends of the roll. The folded ends of the wrapper shall either be tucked into the tube and secured with a restraining device placed into the tube or secured with the specified tape. Alternative to taping, the wrap may be sealed by heat sealing.

5.1.1.2 Flat cuts. Five hundred flat cuts of vinyl chloride film of one description only, shall be slip sheeted and placed on a fiberboard pad. The bundle shall be wrapped and secured as specified for rolls.

5.1.2 Level C. Film shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The supplier may use his standard practice when it meets this requirement.

5.2 Packing. Packing shall be level A, B, or C, as specified (see 6.2).

5.2.1 Level A. Vinyl chloride film of one description only, packaged as specified in 5.1, shall be packed in a snug-fitting shipping container conforming to overseas type, style A, B or J of PPP-B-601; class 2, style 2 or 4 of PPP-B-621; style 1 or 2, class 3, type 2 load of PPP-B-585. Closure and strapping shall be in accordance with the appendix of the applicable container specification. The weight of contents of each shipping container shall not exceed the weight limitation of the applicable container specification.

5.2.2 Level B. Vinyl chloride film of one description only, packaged as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to type CF (variety SW) or SF, class domestic, grade 275, style RSC of PPP-B-626, except that the dimensional limitation shall not apply, domestic type, style A or B of PPP-B-601; style A or B, class 1 of PPP-B-576; class 1, style 2 or 4 of PPP-B-621; style 1 or 2, class 1, type 2 load of PPP-B-585; or type I, grade D of PPP-D-723. Each fiberboard shipping container shall be closed in accordance with method II of the appendix of PPP-B-636. The weight of contents shall not exceed 65 pounds for each fiberboard shipping container or 150 pounds for each other shipping container. The weight of contents of each shipping container shall not exceed the weight limitation of the applicable container specification.

5.2.2.1 When specified (see 6.2), the fiberboard shipping container shall be a grade V2c, V3s, or V4s fiberboard box fabricated in accordance with PP-B-636 and closed in accordance with the appendix thereto.

5.2.3 Level C. Vinyl chloride film, packaged as specified in 5.1, shall be packed in a manner to insure carrier acceptance and safe delivery at destination at the lowest transportation rate for such applies. Containers shall be in accordance with Uniform Freight Classification Rules or National Motor Freight Classification Rules, as applicable.

5.3 palletization (military requirements). Unless otherwise specified (see 6.2), film packed as specified shall be palletized in accordance with MIL-STD-147.

5.3.1 Fiberboard drums. Film packed in fiberboard drums shall be palletized in accordance with load type XIII of MIL-STD-147. The primary and secondary straps shall be applied in accordance with bonding means K and L. A wood cap shall be positioned over and under the load in accordance with storage aid 5, and a double tray cap between courses in accordance with storage aid 7.

5.3.2 All other containers. Film packed in containers other than fiberboard drums shall be palletized in accordance with load type I of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means K and L. Pallet patterns shall be in accordance with the appendix of MIL-STD-147. Interlocking of loads shall be effected by reversing the pattern of each course. If the container is of a size which does not conform to any of the pallet patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

5.4 Marking.

5.4.1 Civil agencies. In addition to any special marking required by the contract or order, interior packages and shipping containers shall be packed in accordance with FED-STD-123.

5.4.2 Military requirements. In addition to any special marking required by the contract or order interior packages, shipping containers and palletized unit loads shall be marked in accordance with MIL-STD-129.

5.4.3 Precautionary marking.

5.4.3.1 Rolls. The following precautionary marking shall appear in letters not less than 3/4-inch in height on at least one side and whenever practical on two sides of each fiber drum or shipping container containing rolls:

STAND ON END

KEEP COOL AND DRY

5.4.3.2 Flat cuts. Each shipping container for flat cut sheets shall be marked in letter not less than 3/4-inch in height on at least one side and wherever practical on two opposite sides with the following:

KEEP COOL AND DRY

6. NOTES

6.1 Intended use. The flexible plastic vinyl film covered by this specification is intended for use in general application in waterproof covers, containers equipage, and packaging materials.

6.1.1 Because the properties of vinyl plastic film vary greatly with formulation and method of manufacture, a specification which covers the many special types of film obtainable would be very lengthy and would include many requirements of limited application. It is the intent of this specification to include only requirements generally applicable to vinyl plastic film. Specific requirements not included herein should be incorporated in the end item specification.

6.2 Ordering data. Purchasers should exercise any desired options offered herein, and procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Type and class required (see 1.2).
- (c) Color, if class 2 required (see 3.6).
- (d) Whether rolls or flat cuts are required (see 3.5.1 and 3.5.2).
 - (1) Rolls: Thickness and width required (see 3.5.1).
 - (2) Flat cuts: Thickness, applicable dimensions and tolerances (see 3.5.2).
- (e) Finish, if other than a smooth dull matte finish (see 3.7).
- (f) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).

- (g) Whether standard sample is required (see 3.1 and 6.4).
- (h) When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).

6.3 The compounding limitations are intended to insure adequate resistance of the film to mildew and bacterial degradation.

6.4 For access to standard sample for color and finish, address the procuring office issuing the invitation for bids.

6.5 The specified activated carbon is available from Union Carbide Corporation, 270 Park Avenue, New York, New York 10017 (see 4.4.10).

[retrieve Figure 1. Air leakage test jig]

MILITARY CUSTODIANS:

Army - GL
Navy - SH

Review activities:

Army - MD, MU, SM, WC
Navy - SH

User activities:

Army - MI
Navy - MC, OS

Preparing activity:

Army - GL

CIVIL AGENCY INTERESTS:

GSA - FSS

Project No. 8135-0308

Orders for this publication are to be placed with General Services Administration, acting as an agent for the Superintendent of Documents. See Section 2 of this specification to obtain extra copies and other documents referenced herein. Price 20 cents each.

L-P-375C
AMENDMENT-3
January 1, 1979
SUPERSEDING
AMENDMENT-2
December 9, 1976

FEDERAL SPECIFICATION

PLASTIC FILM, FLEXIBLE, VINYL CHLORIDE

This amendment, which forms a part of Federal Specification L-P-375C, dated April 23, 1970, was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

PAGE

Under "Federal Specifications": Delete "PPP-B-636, PPP-T-60, and PPP-t-76" in their entirety and substitute:

PPP-B-636 - Boxes, Shipping, Fiberboard
PPP-T-60 - Tape, Packaging, Waterproof
PPP-T-76 - Tape, Packaging, Paper (For Carton Sealing)"

Under "Federal Standards": Delete "FED-STD-406 - Plastics; Method of Testing".

PAGE 3

2.2 After first paragraph: Delete in its entirety and substitute:

"American Society for testing and Materials (ASTM) Standards

D-822, Tensile Properties of Thin Plastic Sheeting
D-1004, Initial Tear Resistance of Plastic Film and Sheeting
D-1203, Loss of plasticizer from Plastics (Activated Carbon Methods)

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

National Motor Freight Traffic Association, Inc., Agent

National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Associations, Inc., Traffic Department, 1616 P Street, N.W., Washington, DC 20036.)

FSC 8135

L-P-375C
Amendment-3

PAGE 3 (cont'd)

Uniform classification Committee, Agent

Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 22 South Riverside Plaza, Chicago, IL 60606.)"

3.2 Delete 1st sentence and substitute "The vinyl film covered by this specification shall be suitably formulated from chlorine-bearing vinyl resin (see 6.6)."

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4.3.1.5 (cont'd), under "Packing" defect: Delete "Inadequate application of components such as incomplete closure, container flaps, loose or inadequate strappings."

Add new paragraph 4.3.1.5.1:

"4.3.1.5.1 Inspection of shipping containers. When shipping containers are required to comply with PPP-B-76, PPP-B-585, PPP-B-601, PPP-B-621, PPP-B-636 and PPP-D-723, examination for defects in the closure and reinforcing shall be in accordance with the appendix of the applicable container specification."

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4.4.2, at end of paragraph: Add the following "Measurement shall be taken across the full width of the roll or sheet. No individual measurement shall be less than the nominal thickness and the tolerance. The average of all measurements on the unit shall not be greater than the nominal thickness and the tolerance."

4.4.3, third line: Delete "Method 1013 of FED-STD-406" and substitute "ASTM D-882".

4.4.4, second line: Delete "Method 1121 of FED-STD-406" and substitute "ASTM D-1004".

Third and fourth lines. Delete "figure 1121 of this method shall be for the specimen itself rather than for the die."

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4.4.10, second line: Delete and substitute "Method A of ASTM D-1203 (see 6.5).

4.4.11 Delete "5670" and substitute "5671".

4.4.13 Add new sentence at end of paragraph "The film sample and panel shall then be examined for conformation with the requirements specified in table I or table II as applicable."

PAGE 19

4.4.1 Delete "5650" and substitute "5651".

5.1 Delete "C" and substitute "Commercial".

5.1.2 Delete title "Level C" and substitute "Commercial".

Delete 2nd sentence and substitute "The package and the quantity per package shall be the same as that normally used by the supplier for retain distribution."

5.2 Delete "C" and substitute "Commercial".

PAGE 20

5.2.2.1 Add paragraph title "Weather-resistant fiberboard containers."

PAGE 21

5.2.3 Delete title and substitute "Commercial packing."

Delete 2nd sentence and substitute "The quantity per shipping container shall be the same as that normally used by the contractor for retail distribution. Containers shall comply with Uniform Freight Classification or National Motor Freight Classification, as applicable."

5.3 Delete "Unless otherwise specified" and substitute "When Specified".

PAGE 22

6.2 Add new subparagraph "(i)":

"(i) When palletization is required (see 5.3)."

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PAGE 22 (cont'd)

Add new paragraph:

"6.6 Recycled material. It is encouraged that recycled material be used when practical as long as end product derived from the recyclable material meets the requirements of the specification (see 3.2)."

Custodians:

Army - GL
Navy - SH

Review activities:

Army - MD, AR
Navy - SA

User activities:

Army - MI
Navy - OS

Preparing activity:

Army - GL

Civil Agency Coordinating Activities:

GSA - FSS
USDA - APS

Project No. 8135-0491