

MIL-I-3825B**21 MAY 1963****SUPERSEDING****MIL-I-3825A****27 MARCH 1962****MILITARY SPECIFICATION**

**INSULATION TAPE, ELECTRICAL, SELF-FUSING;
FOR USE IN ELECTRONIC, COMMUNICATIONS,
AND ALLIED EQUIPMENT**

This specification has been approved by the Department of Defense and is mandatory for use by the Departments of the Army, the Navy, and the Air Force.

1. SCOPE

1.1 Scope. This specification covers a hand-splicing, self-fusing, electrical insulation tape for use in electronic, communications, and allied equipment. The tape is suitable for use at temperatures from -55° to $+60^{\circ}$ C (-67° to 140° F), and when applied, forms a homogeneous insulation. Self-fusion is accomplished without the addition of an adhesive to any surface of the tape. (See 6.1 and 6.1.1)

2. APPLICABLE DOCUMENTS

2.1 The following documents, 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.

SPECIFICATIONS**FEDERAL**

- PPP-B-566 — Boxes, Folding, Paperboard.
- PPP-B-576 — Box, Wood, Cleated, Veneer, Paper Overlaid.

- PPP-B-585 — Boxes; Wood, Wire-bound.
- PPP-B-591 — Boxes, Fiberboard, Wood-Cleated.
- PPP-B-601 — Boxes, Wood, Cleated-Plywood.
- PPP-B-621 — Boxes, Wood, Nailed and Lock-Corner.
- PPP-B-636 — Box, Fiberboard.
- PPP-B-676 — Boxes, Set-Up, Paperboard
- PPP-T-97 — Tape; Pressure-Sensitive Adhesive, Filament Reinforced.

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- MIL-P-116 — Preservation, Methods of.
- MIL-C-10581 — Cable, Telephone; Cable Assemblies, Telephone; Coil Assembly, Telephone Loading.

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MIL-C-13294 — Cable, Telephone
Electrical (Infantry Field Wire,
Twisted Pair, Wire
WD-1/TT and WD
14/TT).

STANDARDS**FEDERAL**

Fed. Test Meth. — Plastics: Methods of
Test. No. 406 Testing.

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MIL-STD-105 — Sampling Procedures
and Tables for In-
spection by Attri-
butes

MIL-STD-129 — Marking for Ship-
ment and Storage.

(Copies of 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 docu-
ments form a part of this specification to the
extent specified herein. Unless otherwise in-
dicated, the issue in effect on date of invita-
tion for bids or request for proposal shall
apply.

OFFICIAL CLASSIFICATION COMMITTEE

Uniform Freight Classification Rules.

(Application for copies should be addressed to the
Official Classification Committee, One Park Avenue,
at 88rd Street, New York 16, N. Y.)

**AMERICAN SOCIETY FOR TESTING
AND MATERIALS (ASTM)**

D1000-60T — Testing Pressure-Sen-
sitive Adhesive
Coated Tapes Used
for Electrical Insu-
lation.

(Application for copies should be addressed to the
American Society for Testing and Materials, 1918
Race Street, Philadelphia 3, Pa.)

3. REQUIREMENTS

3.1 Material. The basic material shall be a
hand-splicing, self-fusing, electrical insula-
tion tape, furnished in black, white, or un-
pigmented, as specified (see 6.2), and so
formulated to meet the requirements of this
specification.

3.2 Tape.**3.2.1 Dimensions and tolerances.**

3.2.1.1 Length. The tape shall be furnished
in rolls of 30 ± 2 foot lengths and wound to
a diameter of not more than $5\frac{1}{2}$ inches, over
a hollow core having an inside diameter of
not less than 1 inch. The tape shall be pro-
vided with a separator to prevent the tape
from adhering to itself. (See 4.2.2.4.)

3.2.1.2 Width. The tape shall be furnished
in the following widths and tolerances, as
specified. (See 4.2.2.4 and 6.2).

Inches

$\frac{1}{8} \pm \frac{1}{32}$
$\frac{3}{8} \pm \frac{1}{32}$
$1 \pm \frac{1}{16}$
$1\frac{1}{2} \pm \frac{1}{16}$
$1\frac{3}{4} \pm \frac{1}{16}$
$2 \pm \frac{1}{16}$
$2\frac{1}{2} \pm \frac{1}{16}$
$3 \pm \frac{1}{16}$

3.2.1.3 Thickness. The tape shall be furn-
ished in thicknesses of 0.020 inch or 0.030
inch, as specified. (See 4.2.2.4 and 6.2).

3.2.1.3.1 Tolerance. The maximum devia-
tion in thickness shall not exceed ± 15 per-
cent of the specified thickness.

3.2.2 Blocking. When tested as specified in
4.3.1.3, the tape shall unwind readily without
transference of the separator to the under-
side of the tape.

3.2.3 Separator stripping. When tested as
specified in 4.3.1.4, the separator shall strip

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readily from the tape in a continuous web without transference of residue on the tape.

3.2.4 Elongation. When tested as specified in 4.3.1.5, the tape shall not split or rupture.

3.3 Fused tape.

3.3.1 Fusion. When tested as specified in 4.3.2.2, the fused tape shall not delaminate without causing rupture of the splice.

3.3.2 Effect of heat. When tested as specified in 4.3.2.3, the fused tape shall not split, crack, craze, or delaminate.

3.3.3 Flexibility after heat aging. When tested as specified in 4.3.2.4, the fused tape shall not split, crack, craze, or delaminate.

3.3.4 Cold bend. When tested as specified in 4.3.2.5, the fused tape shall not split, crack, craze, or delaminate.

3.3.5 Ozone resistance. When tested as specified in 4.3.2.6, the fused tape shall not split, crack, craze, or delaminate.

3.3.6 Corrosion. When tested as specified in 4.3.2.7, the copper test wire shall show ~~no evidence of corrosion or other adverse effects~~ visible under normal or corrected 20/20 vision which are greater than those observed on the control wire.

3.3.7 Volume resistivity. When the fused tape is tested as specified in 4.3.2.8, the average volume resistivity shall be not less than 10^{14} ohm-centimeter after condition C-96/23/des and not less than 10^{13} ohm-centimeter after condition C-96/23/96.

3.4 Specific gravity. When tape is tested as specified in 4.3.3, the maximum value shall be 1.18 at 23/23° C.

3.5 Dielectric strength. When the tape is tested as specified in 4.3.4, the average die-

lectric strength shall be not less than 800 volt per mil.

3.6 Dissipation factor and dielectric constant. When the tape is tested as specified in 4.3.5, the maximum average dissipation factor and dielectric constant shall be 0.006 and 2.90, respectively.

3.7 Marking. Unless otherwise specified, tape shall be marked on the edge of the core with the specification number, the thickness of the tape, and the date (month and year) of manufacture.

3.7.1 Instructions for use. The following instructions for use shall be printed in black ink on white bond paper or on parchment and inserted in each unit package. (See 5.1):

USE OF INSULATION TAPE, ELECTRICAL, SELF-FUSING; FOR USE IN ELECTRONIC, COMMUNICATIONS, AND ALLIED EQUIPMENT.

Preparation and application:

(a) Unroll a length of tape approximately one-half the size needed for the area to be repaired or spliced.

(b) Remove the backing from the tape.

(c) Stretch the tape to double its length (This is done to activate the self-bonding properties of the tape.)

(d) Use a steady pull and apply the tape to the surface to be repaired or spliced.

(e) Pinch the ends of the completed repair or splice between the fingers.

(f) Wearing clean rubber gloves, roll the entire repair or splice between the palms of the hands to fuse the repair or splice.

(g) Do not attempt to test the repair or splice by delaminating it im-

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mediately; this tape tacks immediately but takes a short time to fuse.

Typical applications:

- (a) For Wire WD-1/TT conforming to Specification MIL-C-13294. The very smooth, hard exterior of this wire requires that the tape be applied along at least 1½ inches of the jacket on each side of the section to be repaired or spliced.
 - (1) Start the serving at the center of the section to be repaired or spliced.
 - (2) Wrap to 1½ inches beyond the insulation on one end.
 - (3) Reverse, and wrap to 1½ inches beyond the insulation on the opposite end.
 - (4) Reverse, and end the wrapping at the center of the repair or splice.
 - (5) If friction or vinyl plastic tape is used for further protection, start the serving ½ inch beyond the insulating tape and continue over the entire repair or splice, ending ½ inch beyond the insulating tape on the other end of the repair or splice.
- (b) For Wire WD-14/TT conforming to Specification MIL-C-13294. Braid will absorb water; therefore, it is necessary that the braid on these wires be pushed back at least 1 inch on each side of the section to be repaired or spliced. Tape the braid as described above. Make sure the tape extends over the braid; this will secure the braid ends and prevent fraying.
- (c) For spiral-four cable conforming to Specification MIL-C-10581. This tape is also recommended for the repair or splicing of new spiral-four Cable Assemblies CX-1065/G, CX-1512/U, and CX-1066/G.
- (d) For repairing and splicing of polyethylene, insulated power cables.

3.8 Workmanship. Tape shall be processed in such a manner so as to conform to the requirements of this specification, such as color, uniformity in quality, freedom of splits, cracks, crazing, delamination, and other defects that will affect life, serviceability, or appearance.

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, the supplier may utilize his own facilities or any commercial laboratory acceptable to 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 for inspection. Sampling for inspection shall be performed in accordance with the provisions set forth in Standard MIL-STD-105, except where otherwise indicated.

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

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with this specification. In the event of conflict, this specification shall govern.

4.2.2 Inspection of the end item.

4.2.2.1 Examination of the end item. Examination of the end item shall be made in accordance with the classification of defects, inspection levels and acceptable quality levels (AQL's) set forth below. The lot size, for purpose of determining the sample size in

accordance with MIL-STD-105, shall be expressed in units of rolls of tape for examination in 4.2.2.2, 4.2.2.3, 4.2.2.4, and in units of shipping containers for examination in 4.2.2.5.

4.2.2.2 Examination of the end item for defects in appearance and workmanship. The sample unit shall be one linear yard of the insulating tape excluding the first three layers of the roll.

Examine	Defect
Appearance and workmanship.	Not free from dirt, knots, lumps, or foreign matter affecting performance or serviceability. Broken split, or torn. Not type, size, or color as specified. Separator missing or not as specified.

4.2.2.3 Examination of the end item for defects in construction of rolls of tape. The sample unit for this examination shall be one roll of insulation tape.

Examine	Defect
Insulation on rolls	Rolls not evenly or neatly wound. Cores missing, less than width of material, crushed, broken, or not as specified; not marked as specified (see 3.7).
Unwinding of rolls	Does not unroll evenly or uniformly. Insulation material not continuous, cracks, splits or breaks during unwinding. Insulator strip not full width of roll; breaks during unwinding.

4.2.2.4 Examination of the end item for dimensional defects. The sample unit shall be one roll of insulation tape.

Examine	Defect
Width	Varies by more than the applicable tolerances as indicated in 3.2.1.2.
Length	Less than 28 feet or greater than 32 feet in length. (See 3.2.1.1).
Thickness	Varies by more than ± 15 percent of the specified thickness. (See 3.2.1.3).
Diameter of roll	Greater than $5\frac{1}{2}$ inches in diameter. (See 3.2.1.1).
Core	Inside diameter less than 1 inch. (See 3.2.1.1).

4.2.2.5 Examination of preparation for delivery. An examination shall be made to determine that the packaging, packing, and markings comply with the requirements of Section 5 of this specification. The sample

unit for this examination shall be one shipping container, fully packed, selected prior to the closing operation. Shipping containers fully prepared for delivery shall be examined for closure defects.

Examine	Defects
Packaging	Not level specified; not in accordance with contract requirements.
Individual rolls	Not individual roll packaged as specified. Instructions for use missing, incomplete, incorrect, or illegible. Packaging material not as specified, closures not accomplished by specified or required methods or materials.

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Examinations	Defects
Intermediate packaging	Not packaged as specified.
Packing	Packaging material not as specified, closures not accomplished as specified.
	Not level specified, not in accordance with contract requirements.
	Liner material (as applicable) omitted, damaged, or not as specified.
	Container material damaged or not as specified.
	Closures not accomplished by specified or required methods or materials.
Count	Number of rolls per container less than indicated.
Weight	Gross or net weight exceeds contract requirements.
Markings	Illegible, incorrect, incomplete, omitted, or not in accordance with contract requirements.

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

Examination paragraph	Inspection levels	AQL's
4.2.2.2	II	2.5
4.2.2.3	S-3	2.5
4.2.2.4	S-2	4.0
4.2.2.5	S-2	4.0

Note: The same rolls shall be used for examinations under paragraphs 4.2.2.2 to 4.2.2.4, inclusive. The yardage used for examination under 4.2.2.2 and

the rolls used for examination under 4.2.2.3 shall be within the rolls randomly selected under 4.2.2.4.

4.2.3 The end item shall be tested for the applicable characteristics as indicated in table I for each lot presented for acceptance inspection. The sample unit shall be one roll of tape of the specified width and one piece six inches wide by full width of roll prior to slitting to specified finished width (see 4.3.2.8.1.2). The lot size shall be expressed in units of rolls of tape. The inspection level shall be S-1. The acceptable quality level (AQL) shall be 2.5 expressed in defects per 100 units.

TABLE I. Instructions for testing (sample unit).

	Specification reference		Requirements applicable to		Number determinations per sample unit	Results reported as	
	Requirement paragraph	Method paragraph	Individual unit	Lot average		Pass or fail ¹	Numerically to nearest ²
Blocking	3.2.2	4.3.1.3	X		1	X	
Separator stripping	3.2.3	4.3.1.4	X		1	X	
Elongation	3.2.4	4.3.1.5	X		1	X	
Fused tape fusion	3.3.1	4.3.2.2	X		1	X	
Effect of heat	3.3.2	4.3.2.3	X		1	X	
Flexibility (after heat aging)	3.3.3	4.3.2.4	X		1	X	
Cold bend	3.3.4	4.3.2.5	X		1	X	
Ozone resistance	3.3.5	4.3.2.6	X		1	X	
Corrosion	3.3.6	4.3.2.7	X		1	X	
Volume resistivity							
C-96/23/des	3.3.7	4.3.2.8	X		Avg of 3		10 ¹³ ohm/cm
C-96/23/96	3.3.7	4.3.2.8	X		Avg of 3		10 ¹³ ohm/cm
Specific gravity	3.4	4.3.3	X		3		0.001
Dielectric strength							
C-96/23/des	3.5	4.3.4	X		Avg of 5		V/MIL
C-96/23/96	3.5	4.3.4	X		Avg of 5		V/MIL
Dissipation factor	3.6	4.3.5	X		Avg of 3		0.001
Dielectric constant	3.6	4.3.5	X		Avg of 3		0.01

¹ If failure is indicated, report description of failure.

² Test reports shall include all values on which results are based.

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4.3 Methods of test.

4.3.1 *Inspection conditions.* Unless otherwise specified herein, all inspection shall be made at room ambient temperature, relative humidity, and pressure.

4.3.1.1 *Conditioning equipment.* The conditioning equipment shall be capable of maintaining temperatures within 2°C (3.6°F.) and within 2 percent relative humidity of the values specified for the conditioning of specimens.

4.3.1.2 *Rejected lots.* If an inspection lot is rejected, the supplier may withdraw the lot, rework it to correct the defects, or screen out the defective units, as applicable, and reinspect. Such lots shall be separate from new lots and shall be clearly identified as re-inspected lots. Rejected lots shall be inspected using tightened inspection.

4.3.1.3 *Blocking.* A specimen of tape approximately 2 feet long shall be unwound (pulled) from the roll in a forceful manner. (See 3.2.2.)

4.3.1.4 *Separator stripping.* A specimen of tape approximately 1-foot long shall be removed from the roll. One end of the specimen shall be pulled so that the separator cracks and parts from the tape. The cracked end of the separator shall be grasped and stripped from the tape. (See 3.2.3.)

4.3.1.5 *Elongation.* A specimen of tape at least 6 inches long, from which the separator has been removed, shall be elongated to 300 ± 10 percent of its original length at a rate of 20 ± 2 inches per minute, and held for 15 seconds in its elongated position. (See 3.2.4.)

4.3.2 Fused tape.

4.3.2.1 *Preparation of specimens (not applicable to volume-resistivity test).* A piece

of tape, from which the separator has been removed, shall be spirally wrapped, while elongated to 300 ± 10 percent of its original length, for a distance of approximately 6 inches around an AWG size 8 wire in such a manner that, except for the ends, the tape shall be four layers deep. The end of the tape shall be affixed to make a lap splice with the underlying tape, and the specimen so formed shall be rolled between the palms of the hands. Clean rubber gloves shall be worn to avoid the depositing of corrosive acids and salts on the tape. The specimen shall then be conditioned at a temperature of 20° to 30°C . (68° to 86°F.) for a period of 24 hours. A separate specimen shall be prepared for each of the tests specified in 4.3.2.2 to 4.3.2.7, inclusive.

4.3.2.2 *Fusion.* A prepared specimen (see 4.3.2.1) shall be subjected to a picking action in an attempt to unwrap the splice (see 3.3.1).

4.3.2.3 *Effect of heat.* A prepared specimen (see 4.3.2.1) shall be subjected to a temperature of $100^{\circ} \pm 1^{\circ}\text{C}$. ($212^{\circ} \pm 1.8^{\circ}\text{F.}$) for a period of 400 hours (see 3.3.2).

4.3.2.4 *Flexibility after heat aging.* A prepared specimen (see 4.3.2.1) shall be subjected to a temperature of $100^{\circ} \pm 1^{\circ}\text{C}$. ($212^{\circ} \pm 1.8^{\circ}\text{F.}$) for a period of 200 hours, then cooled to room temperature and bent 180° around a mandrel whose diameter is equal to the diameter of the prepared specimen (see 3.3.3).

4.3.2.5 *Cold bend.* A prepared specimen (see 4.3.2.1) shall be subjected to a temperature of $-55^{\circ} \pm 0^{\circ}\text{C}$. ($-67^{\circ} \pm 0^{\circ}\text{F.}$) for a period of 1 hour and, while at this temperature, bent as specified in 4.3.2.4 (see 3.3.4).

4.3.2.6 *Ozone resistance.* A prepared specimen (see 4.3.2.1) shall be conditioned for a period of 72 hours in a standard ozonizer employing a concentration of 0.015 ± 0.001 percent ozone by weight (see 3.3.5).

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4.3.2.7 Corrosion. A specimen of tape shall be prepared as specified in 4.3.2.1, except that it shall be wound on a 1/4-inch glass rod instead of AWG size 8 wire. Clean rubber gloves shall be worn. Two pieces of AWG size 30 copper wire shall be looped tightly around the prepared specimen, secured 1 inch apart at the center of the specimen, and then tightly wound in spirals outward from the center, so that the wire is partly imbedded in the material, and connected to a 100-to 120-volt dc source. The assembly shall be conditioned for a period of 168 hours at a temperature of $40^{\circ} \pm 3^{\circ} \text{C}$. ($104^{\circ} \pm 3^{\circ} \text{F}$.) and a relative humidity of 96 percent. For each series of tests, a control wire shall be prepared and conditioned, except that the wire shall be applied directly to the glass rod without the application of tape. At the end of this conditioning period, the wires shall be removed and examined. (See 3.3.6)

4.3.2.8 Volume resistivity (see 3.3.7).

4.3.2.8.1 Preparation of specimens. A specimen for each of the conditions specified in 4.3.2.8.2 shall be cut from each finished roll of tape submitted and prepared as specified in 4.3.2.8.1.1 or 4.3.2.8.1.2, respectively. The nominal thickness of each specimen shall be 0.060 inch.

4.3.2.8.1.1 Finished rolls. Specimens shall be prepared as follows:

- (a) Butt-wrap the tape around a 2-or 3-inch mandrel for a distance of 5 or 6 inches without elongation, taking care to reduce airspace between adjacent layers to a minimum.
- (b) Build up the specimen to the required thickness by applying a sufficient number of layers smoothly and evenly, maintaining a 50-percent overlay.
- (c) After allowing 24 hours for fusing at room ambient temperature, the

the specimen shall be cut from the mandrel and flattened by means of platens or rollers to produce a flat sheet. The specimen shall then be cut into 4-inch squares.

Prior to the test, the thickness of the specimen shall be uniform to within ± 5 percent of the average of 10 thickness measurements taken at uniformly distributed points not more than 1 inch from the center of the square.

4.3.2.8.1.2 Rolls prior to slitting to finished width. Specimens shall be prepared as follows: Build up 4-inch by 4-inch specimens to the required thickness by applying a sufficient number of layers smoothly and evenly, taking care to remove airspace between layers by means of rollers.

4.3.2.8.2 Conditioning. One specimen shall be conditioned as in (a) below, and the other as in (b) below:

- (a) C-96/23/des-96 ± 2 hours at a temperature of $23^{\circ} \pm 1.1^{\circ} \text{C}$. desiccated over calcium chloride.
- (b) C-96/23/96 — 96 ± 2 hours at a temperature of $23^{\circ} \pm 1.1^{\circ} \text{C}$. and a relative humidity of 96 percent.

The test shall be performed immediately after conditioning of the specimens.

4.3.2.8.3 Method. The volume resistivity test shall be performed as specified in method 4041 of Fed. Test Method Std. No. 406. As an alternate to the apparatus specified therein, any other apparatus having the same accuracy may be used.

4.3.2.8.4 Evaluation of results. The average of the specimen test results obtained after each conditioning shall be computed and shall be considered the average value for the sample size being inspected. Each average value shall conform to the applicable re-

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quirement of 3.3.7. If, however, the deviation of any value for any one specimen is more than four times the average deviation, this specimen test results shall be disregarded and another specimen from the same sample roll of tape shall be conditioned and tested. The average value for the conditioning group affected shall be recomputed using the test results from the new specimen, and shall conform to the applicable requirement of 3.3.7. The average deviation shall be computed as follows: Average all test results for a single conditioning procedure. Subtract from this average the test result of each specimen individually. Each of these results is the deviation for the individual specimen. The average of these individual deviations, taken without regard to sign, is the average deviation.

4.3.3 Specific gravity. Three specimens shall be tested in accordance with method 5011 of Fed. Test Method Std. No. 406. (See 3.4.)

4.3.4 Dielectric strength (see 3.5).

4.3.4.1 Preparation of specimens. Specimens for each of the conditions specified in 4.3.3.2 shall be cut from each finished roll of tape submitted. In order to prevent flash-over when specimens are cut from finished rolls, the width may be increased by adding a piece of tape to each side of the specimen, making a 1/8-inch lap seam, carefully rolled down.

4.3.4.2 Conditioning. Ten specimens shall be divided into two groups of five specimens each. The first group shall be conditioned as in (a) below, and the second group as in (b) below.

(a) C-96/23/des — 96 ± 2 hours at a temperature of $23^\circ \pm 1.1^\circ \text{C}$. (desiccated over calcium chloride).

(b) C-96/23/96 — 96 ± 2 hours at a temperature of $23^\circ \pm 1.1^\circ \text{C}$.

and a relative humidity of 96 ± 2 percent.

The test shall be performed immediately after conditioning of the specimens.

4.3.4.3 Method. The test shall be performed as specified in ASTM D1000-60T. Average all test results for a single conditioning procedure.

4.3.5 Dissipation factor and dielectric constant (see 3.6).

4.3.5.1 Preparation of specimens. One specimen shall be cut from each sample submitted. The nominal thickness of each specimen shall be 0.060 inch. Specimens shall be prepared as specified in 4.3.2.8.1.2.

4.3.5.2 Conditioning. Specimens shall be conditioned by immersion in distilled water at a temperature of $23^\circ \pm 1.1^\circ \text{C}$. for a period of $24 \pm 1/2$ hours. The test shall be performed immediately after conditioning.

4.3.5.3 Method. The test shall be performed at 1 megacycle per second and as specified in method 4021 of Fed. Test Method Std. No. 406. Average all test results.

5. PREPARATION FOR DELIVERY

5.1 Preservation and packing (see 6.2).

5.1.1 Level A.

5.1.1.1 Unit packaging. Unless otherwise specified (see 6.2), rolls of tape shall be individually protected and unit-packaged in accordance with method III of Specification MIL-P-116, in a folding or set-up paper-board box conforming to Specification PPP-B-566 or PPP-B-676, respectively.

5.1.1.2 Intermediate packaging. Unless otherwise specified (see 6.2), five identical unit packages or a multiple thereof shall be further packaged in folding or set-up paper-

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board containers conforming to Specification PPP-B-566 or PPP-B-676, respectively. The gross weight shall not exceed 10 pounds.

5.1.2 *Level C.* Rolls of tape shall be preserved and packaged in such a manner that will afford adequate protection against deterioration and physical damage during shipment from source to the first receiving activity for immediate use. This may conform to the supplier's normal commercial practices when such meets the requirements of this level.

5.2 Packing (see 6.2)

5.2.1 *Level A.* Unless otherwise specified (see 6.2), rolls of tape packaged as specified

Specification	Container	Class or style
PPP-B-576	Wood, Cleated, Veneer, Paper Overlaid	Class 1
PPP-B-585	Wood, Wirebound	Class 1
PPP-B-591	Fiberboard, Wood-Cleated	Style optional
PPP-B-601	Wood, Cleated-Plywood	Style optional
PPP-B-621	Wood Nailed and Lock-Corner	Class 1
PPP-B-636	Fiberboard	Class 1

Box closures shall be as specified in the applicable box specification or appendix thereto. The gross weight of wood boxes shall not exceed 200 pounds; contents of fiberboard boxes shall not exceed the weight limitations of the applicable box specification.

5.2.3 *Level C.* Rolls of tape packaged as specified (see 6.2) shall be packed in containers of the type, size, and kind commonly used for the purpose, in a manner that will insure acceptance by common carrier and safe delivery at destination. Shipping containers shall comply with the Uniform Freight Classification Rules, or regulations of other carriers as applicable to the mode of transportation.

5.2.4 *General.* Exterior containers shall be uniform in shape and size, shall be of minimum cube and tare consistent with the protection required, and shall contain identical

(see 6.2) shall be packed in fiberboard containers conforming to class 2 of Specification PPP-B-636. Box closures shall be as specified in the appendix to Specification PPP-B-636. All center and edge seams and manufacturer's joints shall be waterproofed with tape in accordance with the appendix to Specification PPP-B-636. Shipping containers shall be banded with tape conforming to type IV of Specification PPP-T-97 and appendix thereto. Container contents shall not exceed the weight limitations of the box specification.

5.2.2 *Level B.* Rolls of tape packaged as specified (see 6.2) shall be packed in containers conforming to any of the following specifications, at the option of the supplier:

quantities of identical items.

5.3 *Marking.* In addition to any special marking required by the contract or order, unit packages, intermediate packages, and exterior shipping containers shall be marked in accordance with Standard MIL-STD-129. (See 6.2).

6. NOTES

6.1 *Intended use.* This tape is primarily intended for use in the repairing and splicing of wire and cable, including polyethylene-insulated wire and cable; it is self-fusing after application, and will provide a tight form-fitting, high-grade insulation for bare wires and irregular shapes. The shelf life, when stored under normal conditions, will be a minimum of two years.

6.1.1 *Abrasion resistance.* It is recommended, because of the soft texture and

MIL-I-3825B

flowing qualities of this tape, that the splice be protected by wrapping a more abrasion-resistant tape over the self-fusing tape. The abrasion-resistant tape shall be compatible with the self-fusing tape and nonmigratory in nature.

6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Color required. (See 3.1.)

- (c) Width and thickness required. (See 3.2.1.2 and 3.2.1.3).
- (d) Levels of preservation and packaging, and applicable marking. (See sect. 5).
- (e) Method of preservation and packaging if other than method III of Specification MIL-P-116. (See 5.1).
- (f) Number of unit packages if other than that specified in 5.1.1.2.
- (g) Type of container if other than specified in 5.2.

Custodians:

Army—EL
Navy—Y&D
Air Force—85

Preparing activity:

Army—EL
Project No. 5970-0131

Review:

Army—EL, MU
Navy—SE, YD
Air Force—85

User:

Army—GL, MO
Navy—CG

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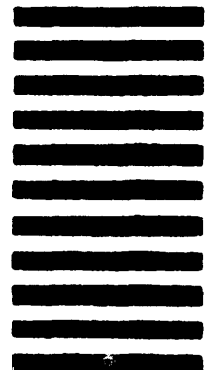
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