



# Standard Specification for Cotton Tapes Woven for Electrical Purposes<sup>1</sup>

This standard is issued under the fixed designation D 335; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

*The committee responsible for this standard has voted its withdrawal. In the absence of substantial reasons that it should be continued, the Society will approve withdrawal from publication in November 1988.*

<sup>ε1</sup> NOTE—Section 3.2 was changed editorially in July 1988.

## 1. Scope

1.1 This specification is applicable to the following three types of woven cotton tapes designed for use in the electrical industry.

| Type | Description                                                                           |
|------|---------------------------------------------------------------------------------------|
| A    | plain weave                                                                           |
| B    | herringbone weave (at least single-point twill, two up and two down) nonelastic weave |
| C    | nonelastic weave                                                                      |

1.2 The values stated in inch-pound units are to be regarded as the standard.

## 2. Referenced Documents

### 2.1 ASTM Standards:

D 123 Terminology Relating to Textiles<sup>2,3</sup>

D 259 Specification for Woven Tapes<sup>2</sup>

D 1682 Test Methods for Breaking Load and Elongation of Textile Fabrics<sup>2</sup>

D 1777 Method for Measuring Thickness of Textile Materials<sup>2</sup>

## 3. Definitions

3.1 *textile tape, n*—a narrow fabric that weighs less than 2.6 lb/100 yd per inch of width (approximately 15 oz/yd<sup>2</sup> or 510 g/m<sup>2</sup>) and which is used primarily for utilitarian purposes. (See also narrow fabric and textile ribbon in Terminology D 123.)

3.1.1 Most textile tapes are less than 4 in. (100 mm) wide and of plain weave.

3.2 *tolerances, n*—in mathematics, prescribed limits of variation for specified properties of a particular material based on observed values obtained by specified test methods and on samples that are representative of the material.

3.3 For definitions of other textile terms used in this specification refer to Terminology D 123.

## 4. Manufacture

4.1 Tapes shall be evenly and uniformly woven from carded cotton yarns and, as far as practicable, be free of "motes" or other impurities present in improperly cleaned cotton.

4.2 Tapes shall be woven with a selvage edge which shall be held as close as is commercially possible to the nominal thickness of the tape.

4.3 Tapes shall be free from torque so that when a length of 10 in. (250 mm) is laid flat on a smooth surface it will not twist to form a spiral or coil.

4.4 Tapes shall be unbleached and shall have no finishing treatment other than calendering.

## 5. Chemical Properties

5.1 In order to process properly and obtain a smooth finish, a small amount of sizing may be applied to the warp yarns by the manufacturer but such sizing shall not exceed 8 % of the total weight of the fabric.

5.2 Finished tapes shall be practically neutral in reaction. An aqueous extract shall have a pH value not less than 6.5 nor more than 7.5.

## 6. Physical Properties

6.1 Tapes shall conform to the physical requirements prescribed in Table 1 subject to the tolerances listed in Section 7.

## 7. Tolerances

7.1 For the purpose of this specification, the following tolerances shall be applied:

7.1.1 *Thickness*—The average thickness of the tape shall not vary from that specified by more than the following tolerances:

| Thickness, in. (mm)                      | Permissible Limits,<br>plus or minus,<br>in. (mm) |
|------------------------------------------|---------------------------------------------------|
| 0.011 (0.28) and under                   | 0.001 (0.03)                                      |
| Over 0.011 to 0.020 (0.28 to 0.51), incl | 0.0015 (0.038)                                    |
| Over 0.020 (0.28)                        | 0.002 (0.05)                                      |

7.1.2 *Width*—The width of the tape shall not vary from that specified by more than the following tolerances:

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-13 on Textiles, and is the direct responsibility of Subcommittee D 13.56 on Performance Standards for Textile Fabrics.

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<sup>2</sup> Annual Book of ASTM Standards, Vol 07.01.

<sup>3</sup> Annual Book of ASTM Standards, Vol 07.02.