



Designation: D 5726 – 98

# Standard Specification for Thermoplastic Fabrics Used in Hot-Applied Roofing and Waterproofing<sup>1</sup>

This standard is issued under the fixed designation D 5726; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification covers thermoplastic fabrics such as polyester, polyester/polyamide bicomponent, or composites with fiber glass or polyester scrims that can be used during the construction of hot-applied roofing and waterproofing.

1.2 This specification is intended as a material specification. Issues regarding the suitability of specific roof constructions or application techniques are beyond the scope of this specification.

1.3 The specified tests and property values used to characterize the respective fabrics are intended to establish minimum properties. In-place system design criteria or performance attributes are factors beyond the scope of this material specification.

1.4 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

## 2. Referenced Documents

### 2.1 ASTM Standards:

- D 123 Terminology Relating to Textile Materials<sup>2</sup>
- D 1079 Terminology Relating to Roofing, Waterproofing, and Bituminous Materials<sup>3</sup>
- D 1117 Test Methods for Nonwoven Fabrics<sup>2</sup>
- D 1776 Practice for Conditioning Textiles for Testing<sup>2</sup>
- D 1777 Test Method for Measuring Thickness of Textile Materials<sup>2</sup>
- D 4830 Test Methods for Characterizing Thermoplastic Fabrics Used In Roofing and Waterproofing<sup>3</sup>
- D 5035 Test Method for Breaking Force and Elongation of

Textile Fabrics (Strip Method)<sup>4</sup>

D 5733 Test Method for Tearing Strength of Nonwoven Fabrics by the Trapezoid Procedure<sup>4</sup>

E 1 Specification for ASTM Thermometers<sup>5</sup>

### 2.2 Other Standard:

AATCC Test Set No. 128, Wrinkle Recovery Test<sup>6</sup>

## 3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, refer to Terminologies D 1079 and D 123.

## 4. Classification

4.1 The thermoplastic fabrics covered by this specification are of the following general constructions and compositions. Each is a separate class or type, differentiated by polymer type, a combination of polymers, or the manufacturing process, or some combination thereof:

4.1.1 *Type I*—Polyester spunbonded with resin, unneeded;

4.1.2 *Type II*—Polyester spunbonded with resin, needed;

4.1.3 *Type III*—Polyester mat plus fiber glass scrim and resin; and

4.1.4 *Type IV*—Polyester core/polyamide sheath bicomponent spunbonded.

## 5. Materials and Manufacture

5.1 The fabric shall be a uniform, thin, porous mat of the primary thermoplastic polymer, with or without the addition of reinforcing stranded glass or thermoplastic yarns. Chemically bonding with a water-resistant resin or thermally bonding with other thermoplastic polymers shall be permitted.

## 6. Physical Properties, Thickness, and Mass

6.1 Fabrics shall conform to the thickness, mass, and physical properties presented in Table 1.

## 7. Unit Mass

7.1 Determine the unit mass of the fabric using the procedures described in Test Methods D 1117.

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-8 on Roofing, Waterproofing, and Bituminous Materials and is the direct responsibility of Subcommittee D08.04 on Fabrics for Bituminous Roofing and Waterproofing.

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

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 04.04.

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 07.02.

<sup>5</sup> *Annual Book of ASTM Standards*, Vol 14.03.

<sup>6</sup> Available from American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.