



Designation: D 6585 – 00

Standard Specification for Unsintered Polytetrafluoroethylene (PTFE) Extruded Film or Tape¹

This standard is issued under the fixed designation D 6585; 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.

1. Scope

1.1 This specification covers unsintered extruded films or tapes manufactured from virgin polytetrafluoroethylene, in nominal thickness from 0.025 to 0.39 mm (0.001 to 0.010 in.), and are > 97 % PTFE in composition.

1.1.1 The use of recycled PTFE for production of unsintered extruded films or tapes has not been identified at this time. When commercial usable processes and materials are available, this specification will be revised to include recycled materials.

1.2 The values stated in SI units are detailed in IEEE/ASTM SI 10 are to be regarded as the standard. The values given in parentheses are for information only.

1.3 The following precautionary statement pertains only to the test method portion, Section 8 of this specification: *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.*

NOTE 1—There is no ISO standard that covers information included in this specification. A few of the test methods are mentioned in ISO 12086-2: 1995.

2. Referenced Documents

2.1 ASTM Standards:

- D 257 Test Methods for DC Resistance or Conductance of Insulating Materials²
- D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing³
- D 638 Test Methods for Tensile Properties of Plastics³
- D 883 Terminology Relating to Plastics³
- D 1600 Terminology for Abbreviated Terms Relating to Plastics³
- D 1711 Terminology Relating to Electrical Insulation²

¹ This specification is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.15 on Thermoplastic Materials.

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² Annual Book of ASTM Standards, Vol 10.01.

³ Annual Book of ASTM Standards, Vol 08.01.

D 3892 Practice for Packaging/Packing of Plastics⁴

D 4895 Specification for Polytetrafluoroethylene (PTFE) Resin Produced from Dispersion⁵

D 6040 Test Methods for Unsintered Polytetrafluoroethylene (PTFE) Extruded Film or Tape⁵

IEEE/ASTM SI 10 Standard for Use of the International System of Units (SI): The Modern Metric System³

2.2 ISO Standard:

ISO 12086-2: 1995 Plastics-Fluoropolymer Dispersions and Molding and Extrusion Materials Part-2 Preparation of Test Specimens and Determination of Properties⁶

2.3 GSA Standard:

A-A-58092 Tape, Antiseize, Polytetrafluoroethylene⁷

NOTE 2—Supersedes MIL-T-27730A (ASG) 7 January 1997.

3. Terminology

3.1 *Definitions*—Definitions are in accordance with Terminology D 1711, Terminology D 883, and Test Method D 257 and abbreviated terms are in accordance with Terminology D 1600, unless otherwise specified.

3.1.1 *lot, n*—one production run or a uniform blend of two or more production runs.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *film, n*—full width material received as finished film.

3.2.2 *tape, n*—material that has been slit from the finished film.

3.2.3 *tensile strength at yield, n*—from Test Methods D 638, Fig. A2.3.

4. Classification

4.1 This specification covers three types of unsintered extruded PTFE tapes:

4.1.1 *Type I*—Thread seal tape (T.S.T.) with an apparent density of 0.50 to 1.60 g/cm³.

4.1.2 *Type II*—Low density tape with an apparent density of 0.60 to 0.80 g/cm³.

⁴ Annual Book of ASTM Standards, Vol 08.02.

⁵ Annual Book of ASTM Standards, Vol 08.03.

⁶ Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

⁷ A-A-58092 can be obtained from General Services Administration, Engineering and Commodity Management Division (9FTE-10), 400 15th St. SW, Auburn, WA 98001.