



Standard Specification for Polytetrafluoroethylene–(PTFE) Coated Glass Fabric¹

This standard is issued under the fixed designation D 4969; 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 glass fabric impregnated, coated, and sintered on both sides with PTFE to a nominal thickness of 0.318 mm (0.015 in.) or less.

1.2 The PTFE-coated glass fabric is for electrical, chemical, and mechanical uses.

1.3 The PTFE-coated glass fabric of this specification does not pertain to structural fabric, single-sided PTFE coatings, or materials used for laminates.

1.4 The values stated in SI units as detailed in IEEE/ASTM SI-10.

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

2. Referenced Documents

2.1 ASTM Standards:

- D 123 Terminology Relating to Textile Materials²
- D 149 Test Methods for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies³
- D 257 Test Methods for D-C Resistance or Conductance of Insulating Materials³
- D 374 Test Methods for Thickness of Solid Electrical Insulation³
- D 578 Specification for Glass Fiber Yarns²
- D 579 Specification for Greige Woven Glass Fabrics²
- D 618 Method for Conditioning Plastics and Electrical Insulating Materials for Testing⁴
- D 737 Test Method for Air Permeability of Textile Fabrics²
- D 751 Test Methods for Coated Fabrics⁵
- D 827 Method of Test for Edge Tearing Strength of Paper⁶
- D 883 Definitions of Terms Relating to Plastics⁴

¹ This specification is under the jurisdiction of 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 07.01.

³ Annual Book of ASTM Standards, Vol 10.01.

⁴ Annual Book of ASTM Standards, Vol 08.01.

⁵ Annual Book of ASTM Standards, Vol 09.02.

⁶ Discontinued, See 1981 Annual Book of ASTM Standards, Part 20.

D 902 Methods of Testing Flexible Resin-Coated Glass Fabric and Glass Fabric Tapes Used for Electrical Insulation³

D 1424 Test Method for Tearing Strength of Fabrics by Falling-Pendulum Type (Elmendorf) Apparatus²

D 3892 Practice for Packaging/Packing of Plastics⁷

D 4441 Specification for Aqueous Dispersions of Polytetrafluoroethylene⁸

IEEE/ASTM SI-10 Standard for Use of the International System of Units (SI): The Modern Metric System⁹

2.2 ISO Standard:¹⁰

ISO 12086-2: 1995 Plastics—Fluoropolymer Dispersions and Moulding and Extrusion Materials—Part 2: Preparation of Test Specimens and Determination of Properties

3. Terminology

3.1 *Definitions*—Definitions of terms relating to plastics used in this specification shall be in accordance with Definitions D 883. Definitions of terms relating to textiles used in this specification shall be in accordance with Terminology D 123.

3.1.1 *structural fabric*—PTFE-coated fabric to a thickness of greater than 0.381 mm (0.015 in.).

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

4. Classification

4.1 There shall be six types of PTFE-coated glass fabrics as described in Table 1.

4.2 Use a one-line system to specify materials covered by this specification. The system uses redefined cells to refer to specific aspects of this specification, as illustrated below as follows.

Standard Number Block	Specification			
	Type	Grade	Class	Special Notes
Example: ASTM D4969-XX	IV	—	—	,

⁷ Annual Book of ASTM Standards, Vol 08.02.

⁸ Annual Book of ASTM Standards, Vol 08.03.

⁹ Available from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428

¹⁰ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

*A Summary of Changes section appears at the end of this standard.