



Designation: D 579 – 97

Standard Specification for Greige Woven Glass Fabrics¹

This standard is issued under the fixed designation D 579; 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 greige fabrics woven from “E” electrical glass fiber yarns. This specification can also be applied to fabrics made of other glass fiber types as agreed upon between the purchaser and the supplier.

1.2 This specification specifies the terminology, definitions, general requirements and physical requirements for greige glass fiber fabrics. This specification permits the application of organic materials to the glass fiber yarn during manufacture that helps facilitate weaving. When used as permitted in this specification, such materials will not interfere with the intended end use requirements.

1.3 This specification shows the values in both SI units and in inch-pound units. “SI units” is the technically correct name for the system of metric units known as the International System of Units. “Inch-pound units” is the technically correct name for the customary units used in the United States. The values in SI units are provided as information only; the values stated in inch-pound units are to be regarded as standard.

NOTE 1—This specification is one of a series to provide a substitute for the following Military Specifications:

MIL-Y-1140H

MIL-C-9084C

Additional ASTM specifications in this series are currently being drafted and will appear in the *Annual Book of ASTM Standards*, as available. These are to include finished glass fabrics, glass tapes, glass sleeveings, glass yarns, glass cords, glass sewing thread, and finished laminates made from finished glass fabrics.

1.4 *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 Textiles²

D 578 Specification for Glass Fiber Strands²

¹ This specification is under the jurisdiction of ASTM Committee D-13 on Textiles and is the direct responsibility of Subcommittee D13.18 on Glass Fiber and Its Products.

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² *Annual Book of ASTM Standards*, Vol 07.01.

D 1059 Test Method for Yarn Number Based on Short-Length Specimens³

D 1423 Test Method for Twist in Yarns by the Direct-Counting Method²

D 1776 Practice for Conditioning Textiles for Testing²

D 1777 Method for Measuring Thickness of Textile Materials²

D 3773 Test Methods for Length of Woven Fabric⁴

D 3774 Test Methods for Width of Woven Fabric⁴

D 3775 Test Method for Fabric Count of Woven Fabric⁴

D 3776 Test Methods for Mass Per Unit Area (Weight) of Woven Fabric⁴

D 4029 Specification for Finished Woven Glass Fabrics⁴

D 4963 Test Method for Ignition Loss of Glass Strands and Fabrics⁴

E 171 Specification for Standard Atmospheres for Conditioning and Testing Materials⁵

2.2 ANSI Standards:

ANSI/ASQC Z1.4 Sampling Procedures for Inspection by Attributes⁶

2.3 Military Standard and Specifications:

MIL-Y-1140H Yarn, Cord, Sleeveing, Cloth and Tape-Glass⁷

MIL-C-9084C Cloth, Glass Finished for Resin Laminates⁷

2.4 Textile Institute Documents:

Textile Terms and Definitions⁸

Woven Cloth Construction⁸

3. Terminology

3.1 Definitions:

3.1.1 *atmosphere for testing textiles, n*—for glass, air maintained at a relative humidity of at least 48 % and no greater than 67 %, and at a temperature of at least 68°F (20°C) and no greater than 77°F (25°C).

3.1.1.1 *Discussion*—Glass textiles are used in various products such as reinforced plastics, mat-like material, tire cords, electrical insulation, etc. Each of these materials require

³ *Annual Book of ASTM Standards*, Vol 07.01.

⁴ *Annual Book of ASTM Standards*, Vol 07.02.

⁵ *Annual Book of ASTM Standards*, Vol 15.09.

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

⁷ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁸ Available from the Textile Institute, 10 Blackfriars St., Manchester, M3 5DR England.