



Standard Test Methods for Fully Cured Silicone Rubber-Coated Glass Fabric and Tapes for Electrical Insulation¹

This standard is issued under the fixed designation D1458; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 These test methods cover procedures for testing fully cured silicone rubber-coated glass fabric and tapes to be used for electrical insulation.

1.2 The procedures appear in the following order:

Procedure	ASTM	
	Sections	References
Breaking Strength	7	D828
Breaking Strength After Creasing	8	...
Conditioning	5	...
Dielectric Breakdown Voltage	9	D149, D295, D6054
Dielectric Proof-Voltage	10	D1389
Dissipation Factor and Relative Permittivity	11	D150
Sampling	4	...
Thermal Endurance	15	D1830
Thickness	6	D374
Thread Count	14	...
Volume Resistivity	12	D257
Weight	13	...

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

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. See 9.5.1 for a specific warning statement.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D149 Test Method for Dielectric Breakdown Voltage and

¹ These test methods are under the jurisdiction of ASTM Committee D09 on Electrical and Electronic Insulating Materials and are the direct responsibility of Subcommittee D09.07 on Flexible and Rigid Insulating Materials.

Current edition approved Nov. 1, 2013. Published December 2013. Originally approved in 1957. Last previous edition approved in 2007 as D1458 – 01 (2007). DOI: 10.1520/D1458-13.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies

D150 Test Methods for AC Loss Characteristics and Permittivity (Dielectric Constant) of Solid Electrical Insulation

D202 Test Methods for Sampling and Testing Untreated Paper Used for Electrical Insulation

D257 Test Methods for DC Resistance or Conductance of Insulating Materials

D295 Test Methods for Varnished Cotton Fabrics Used for Electrical Insulation

D374 Test Methods for Thickness of Solid Electrical Insulation (Withdrawn 2013)³

D828 Test Method for Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus (Withdrawn 2009)³

D1389 Test Method for Proof-Voltage Testing of Thin Solid Electrical Insulating Materials (Withdrawn 2013)³

D1711 Terminology Relating to Electrical Insulation

D1830 Test Method for Thermal Endurance of Flexible Sheet Materials Used for Electrical Insulation by the Curved Electrode Method

D5032 Practice for Maintaining Constant Relative Humidity by Means of Aqueous Glycerin Solutions

D6054 Practice for Conditioning Electrical Insulating Materials for Testing (Withdrawn 2012)³

E104 Practice for Maintaining Constant Relative Humidity by Means of Aqueous Solutions

3. Terminology

3.1 *Definitions*—For definitions of terms used in these test methods, see Terminology D1711.

4. Sampling

4.1 Sample shipments of material as specified below, and where possible take only one sample from any package.

4.1.1 *Fabric*—Over 3 in. (75 mm) in width.

4.1.1.1 *Rolls*—Select one roll from each ten rolls or fraction thereof in a shipment of full-width fabric. Cut off not less than

³ The last approved version of this historical standard is referenced on www.astm.org.

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