



Standard Specification for Molding Compounds, Thermosetting¹

This standard is issued under the fixed designation D5948; 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 This specification covers the basic properties of thermoset molding compounds and the test methods used to establish the properties.

1.2 *Classification*—Molding thermosetting plastic compounds shall be of the following resins and are covered by the individual specification sheets (see 5.1 and Annex A1 – Annex A8).

Resin
Phenolic, cellulose filled
Phenolic, mineral/glass filled
Melamine
Polyester
Diallyl iso-phthalate
Diallyl ortho-phthalate
Silicone
Epoxy

NOTE 1—There is no equivalent ISO standard.

1.3 *Order of Precedence*—In the event of a conflict between the text of this specification and the references cited in Section 2 (except for related specification sheets), the text of this specification takes precedence. Nothing in this specification, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

1.4 The values stated in SI units are to be considered standard.

2. Referenced Documents

2.1 ASTM Standards:²

- D149 Test Method for Dielectric Breakdown Voltage and 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
- D229 Test Methods for Rigid Sheet and Plate Materials Used for Electrical Insulation
- D256 Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics
- D495 Test Method for High-Voltage, Low-Current, Dry Arc Resistance of Solid Electrical Insulation
- D570 Test Method for Water Absorption of Plastics
- D618 Practice for Conditioning Plastics for Testing
- D638 Test Method for Tensile Properties of Plastics
- D648 Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position
- D695 Test Method for Compressive Properties of Rigid Plastics
- D790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- D796 Practice for Compression Molding Test Specimens of Phenolic Molding Compounds (Withdrawn 1992)³
- D883 Terminology Relating to Plastics
- D1896 Practice for Transfer Molding Test Specimens of Thermosetting Compounds
- D3419 Practice for In-Line Screw-Injection Molding Test Specimens From Thermosetting Compounds
- D3636 Practice for Sampling and Judging Quality of Solid Electrical Insulating Materials
- D3638 Test Method for Comparative Tracking Index of Electrical Insulating Materials
- D4350 Test Method for Corrosivity Index of Plastics and Fillers
- D4697 Guide for Maintaining Test Methods in the User's Laboratory (Withdrawn 2009)³
- E994 Guide for Calibration and Testing Laboratory Accreditation Systems General Requirements for Operation and Recognition (Withdrawn 2003)³
- E1224 Guide for Categorizing Fields of Capability for Laboratory Accreditation Purposes (Withdrawn 2002)³

¹ This specification is under the jurisdiction of ASTM Committee D20 on Plastics and is the direct responsibility of Subcommittee D20.16 on Thermosetting Materials.

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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.

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