



Designation: D5948 – 05 (Reapproved 2020)

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 known ISO equivalent to this 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.

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

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.

Current edition approved Dec. 1, 2020. Published December 2020. Originally approved in 1996. Last previous edition approved in 2012 as D5948 - 05 (2012). DOI: 10.1520/D5948-05R20.

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

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