



Standard Specification for Thermosetting Polyester Molding Compounds¹

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1. Scope *

1.1 This specification covers compression molding, thermosetting, unsaturated polyester molding compounds as further defined in 3.1.

1.2 The values stated in SI units are to be regarded as the standard.

NOTE 1—The properties included in this specification are those required to identify the types of molding compounds covered. There may be other requirements necessary to identify particular characteristics. These will be added to the specification as their inclusion becomes generally desirable and the necessary test data and methods become available.

NOTE 2—ISO 3672-1: 1979(E) is similar but not equivalent to this specification. Product classification and characterization are not equivalent.

2. Referenced Documents

2.1 ASTM Standards:

D 256 Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics²

D 495 Test Method for High-Voltage, Low-Current, Dry Arc Resistance of Solid Electrical Insulation³

D 570 Test Method for Water Absorption of Plastics²

D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing²

D 790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials²

D 792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement²

D 3892 Practice for Packaging/Packing of Plastics⁴

2.2 ISO Standard:

ISO 3672-1: 1979(E) Plastics—Unsaturated Polyester

Resins—Part 1: Designation⁵

3. Classification

3.1 This specification covers the following types of polyester molding compounds:

3.1.1 *Type 1*—General-purpose, granular material with mineral fillers.

3.1.2 *Type 2*—General-purpose, granular material with mineral and cellulosic fillers, and having improved mechanical strength.

3.1.3 *Type 3*—General-purpose, putty-type material with mineral fillers.

3.1.4 *Type 4*—Putty-type material with mineral fillers having superior electrical properties.

3.1.5 *Type 5*—High-impact, glass-fiber filled material in mat form. It has good electrical properties.

3.1.6 *Type 6*—High-impact, glass-fiber filled material in putty form.

4. General Requirements

4.1 The molding compounds shall be of uniform composition, so compounded as to conform to the requirements prescribed in this specification.

4.2 The apparent density, bulk factor, particle size, physical form, and color of the compound shall be as agreed upon between the purchaser and supplier.

NOTE 3—The terms “apparent density,” “bulk factor,” and “particle size” cannot be used in the same sense with putty-type and glass-filled materials as with granular materials.

5. Detail Requirements

5.1 Test specimens, molded by compression under conditions specified by the manufacturer, shall conform to the requirements prescribed in Table 1.

6. Sampling

6.1 A batch of molding compound shall be considered a unit of manufacture and may consist of a blend of two or more production runs of the same material.

¹ This specification is under the jurisdiction of ASTM Committee D-20 on Plastics and is the direct responsibility of Subcommittee D20.16 on Thermosetting Materials.

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² *Annual Book of ASTM Standards*, Vol 08.01.

³ *Annual Book of ASTM Standards*, Vol 10.01.

⁴ *Annual Book of ASTM Standards*, Vol 08.02.

⁵ Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

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