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Standard Specification for Allyl Molding Compounds[1]

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1. Scope *

1.1 This specification covers compression molding, thermosetting, allyl compounds as further defined in Section 3.

1.2 The values stated in SI units are to be regarded as the standard. The values in parentheses are given for information only.

NOTE 1—The properties included in this specification are those required to identify the 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—There is no similar or equivalent ISO standard.

2. Referenced Documents

2.1 *ASTM Standards:*

D 150 Test Methods for A-C Loss Characteristics and Permittivity (Dielectric Constant) of Solid Electrical Insulating Materials[2]

D 229 Test Methods for Rigid Sheet and Plate Materials Used for Electrical Insulation[2]

D 256 Test Methods for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics[3]

D 257 Test Methods for D-C Resistance or Conductance of Insulating Materials[2]

D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing[3]

D 790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials[3]

D 2863 Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)[4]

D 3892 Practice for Packaging/Packing of Plastics[4]

D 5224 Practice for Compression Molding Test Specimens of Thermosetting Molding Compounds[5]

2.2 *Military Standard:*

MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes[6]

3. Classification

3.1 This specification provides for the identification of three types of allyl molding compounds, based on the general type of filler employed in their manufacture, which shall be distinguished by the requirements prescribed in Table 1.

Type I—High-strength materials, glass-fiber reinforced.

Type II—General-purpose mineral filled.

Type III—General-purpose synthetic fiber filler.

3.2 Types I and II may be subdivided into four classes according to resin composition and use as follows:

Class A—Diallyl ortho-phthalate resin, nonflame-retardant.

Class B—Diallyl ortho-phthalate resin, flame-retardant.

Class C—Diallyl meta-phthalate resin nonflame-retardant.

Class D—Diallyl meta-phthalate resin, flame-retardant.

3.3 The four classes of Type I are subdivided as follows: Classes A, B, C, and D into four grades. For Type II each of the four classes is subdivided into two grades. For Type III only Class A compounds are produced and are available in three grades.

4. General Requirements

4.1 The molding compound shall be of uniform composition and so compounded as to conform to the requirements of this specification.

4.2 Although other than allyl resin may be added for flame resistance and other purposes, the major part of the resin portion shall be diallyl ortho-phthalate or diallyl meta-phthalate.

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

[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 10.01.

[3] *Annual Book of ASTM Standards*, Vol 08.01.

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

[5] *Annual Book of ASTM Standards*, Vol 08.03.

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

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