



Standard Specification for Cellulose Acetate Butyrate Molding and Extrusion Compounds¹

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1. Scope

1.1 This specification covers requirements for plasticized cellulose acetate butyrate thermoplastic compounds suitable for injection molding and extrusion. These compounds have a butyryl content less than 38 % and an acetyl content less than 15 % and may or may not contain dyes and pigments. This specification does not include special materials compounded for special applications. Cellulosic plastic materials, being thermoplastic, are reprocessible and recyclable. This specification allows for the use of those cellulosic materials, provided that all specific requirements of this specification are met.

1.2 The properties included in this specification are those required to identify the compositions covered. There may be other requirements necessary to identify particular characteristics important to specialized applications. These may be specified by using the suffixes as given in Section 5.

1.3 This classification system and subsequent line call out (specification) are intended to provide a means of calling out plastic materials used in the fabrication of end items or parts. It is not intended for the selection of materials. Material selection should be made by those having expertise in the plastic field after careful consideration of the design and performance required of the part, environment to which it will be exposed, fabrication process to be employed, costs involved, and inherent properties of the material other than those covered by this classification system.

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

1.5 The following safety hazards caveat pertains only to the test method portion, Section 12, of this specification. *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.*

NOTE 1—There is no equivalent or similar ISO standard.

2. Referenced Documents

2.1 ASTM Standards:

- D 149 Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies²
- D 256 Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastic³
- D 257 Test Methods for DC Resistance or Conductance of Insulating Materials²
- D 570 Test Method for Water Absorption of Plastics³
- D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing³
- D 635 Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position³
- D 638M Test Method for Tensile Properties of Plastics [Metric]³
- D 790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials³
- D 792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement³
- D 883 Terminology Relating to Plastics³
- D 1003 Test Method for Haze and Luminous Transmittance of Transparent Plastics³
- D 1600 Terminology for Abbreviated Terms Relating to Plastics³
- D 1729 Practice for Visual Evaluation of Color Differences of Opaque Materials⁴
- D 1898 Practice for Sampling of Plastics³
- D 3641 Practice for Injection Molding Test Specimens of Thermoplastic Molding and Extrusion Materials⁵
- D 3892 Practice for Packaging/Packing of Plastics⁵
- D 4000 Classification System for Specifying Plastic Materials⁵
- D 5033 Guide for the Development of Standards Relating to

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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 06.01.

⁵ Annual Book of ASTM Standards, Vol 08.02.