



## Standard Specification for Cellulose Acetate Propionate Molding and Extrusion Compounds<sup>1</sup>

This standard is issued under the fixed designation D 1562; 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.

### 1. Scope

1.1 This specification covers requirements for plasticized cellulose acetate propionate thermoplastic compounds suitable for injection molding and extrusion. These compounds have a propionyl content less than 48 % and an acetyl content less than 3 % and may or may not contain dyes and pigments. Cellulosic plastic materials, being thermoplastic, are reprocessable 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 specification.

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

1.5 The following safety hazards caveat pertains only to the test method portion, Section 11, 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.

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-20 on Plastics and is the direct responsibility of Subcommittee D20.15 on Thermoplastic Materials.

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### 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 Frequencies<sup>2</sup>
- D 256 Test Method for Determining the Pendulum Impact Resistance of Notched Specimens of Plastics<sup>3</sup>
- D 257 Test Methods for DC Resistance or Conductance of Insulating Materials<sup>2</sup>
- D 570 Test Method for Water Absorption of Plastics<sup>3</sup>
- D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing<sup>3</sup>
- D 635 Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position<sup>3</sup>
- D 638M Test Method for Tensile Properties of Plastics [Metric]<sup>3</sup>
- D 790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials<sup>3</sup>
- D 792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement<sup>3</sup>
- D 883 Terminology Relating to Plastics<sup>3</sup>
- D 1003 Test Method for Haze and Luminous Transmittance of Transparent Plastics<sup>3</sup>
- D 1600 Terminology for Abbreviated Terms Relating to Plastics<sup>3</sup>
- D 1729 Practice for Visual Evaluation of Color Differences of Opaque Materials<sup>4</sup>
- D 1898 Practice for Sampling of Plastics<sup>3</sup>
- D 3641 Practice for Injection Molding Test Specimens of Thermoplastic Molding and Extrusion Materials<sup>5</sup>
- D 3892 Practice for Packaging/Packing of Plastics<sup>5</sup>
- D 4000 Classification System for Specifying Plastic Materials<sup>5</sup>
- D 5033 Guide for the Development of Standards Relating to

<sup>2</sup> Annual Book of ASTM Standards, Vol 10.01.

<sup>3</sup> Annual Book of ASTM Standards, Vol 08.01.

<sup>4</sup> Annual Book of ASTM Standards, Vol 06.01.

<sup>5</sup> Annual Book of ASTM Standards, Vol 08.02.