



Designation: D 787 – 96 (Reapproved 2003)

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

This standard is issued under the fixed designation D 787; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

*This standard has been approved for use by agencies of the Department of Defense.*

### 1. Scope

1.1 This specification covers requirements for plasticized ethyl cellulose thermoplastic compounds suitable for injection molding and extrusion. It does not include special materials compounded for special applications.

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

1.3 The following precautionary statement pertains only to the Test Methods portion, Section 10 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 256 Test Methods for Determining the Pendum Impact Resistance of Notched Specimens of Plastics<sup>2</sup>
- D 569 Test Method for Measuring the Flow Properties of Thermoplastic Molding Materials<sup>2</sup>
- D 570 Test Method for Water Absorption of Plastics<sup>2</sup>
- D 618 Practice for Conditioning Plastics for Testing<sup>2</sup>
- D 638 Test Method for Tensile Properties of Plastics<sup>2</sup>
- D 648 Test Method for Deflection Temperature of Plastics Under Flexural Load<sup>2</sup>
- D 759 Practice for Conducting Physical Property Tests of Plastics at Subnormal and Supernormal Temperatures<sup>3</sup>
- D 785 Test Method for Rockwell Hardness of Plastics and

Electrical Insulating Materials<sup>2</sup>

- D 792 Test Methods for Specific Gravity (Relative Density) and Density of Plastics by Displacement<sup>2</sup>
- D 883 Terminology Relating to Plastics<sup>2</sup>
- D 1505 Test Method for Density of Plastics by the Density-Gradient Technique<sup>2</sup>
- D 1897 Practice for Injection Molding Test Specimens of Thermoplastic Molding and Extrusion Materials<sup>2</sup>
- D 1898 Practice for Sampling of Plastics<sup>2</sup>
- D 3892 Practice for Packaging/Packing of Plastics<sup>4</sup>

### 3. Terminology

3.1 Terms in this specification are in accordance with Terminology D 883.

### 4. Classification

4.1 This specification covers two types and eleven grades of ethyl cellulose molding and extrusion compounds as classified in accordance with Table 1. Type I materials are general purpose and Type II are characterized by improved resistance to impact, especially at low temperatures. The grades are classified in accordance with their physical properties as specified in Table 1.

### 5. Ordering Information

5.1 Purchase orders for, or inquiries about, the materials described in this specification shall identify the following:

- 5.1.1 The number of this specification and the required type and grade chosen from Table 1, for example, D 787 Type 1, Grade 1.
- 5.1.2 Supplementary requirements in accordance with this specification if necessary.
- 5.1.3 Color and opacity within the limits defined in 6.4.
- 5.1.4 Particle form and size if choice is available.
- 5.1.5 Such other requirements as may be agreed between the seller and the purchaser.

### 6. Materials and Manufacture

6.1 Materials supplied under this specification shall be ethyl cellulose plastics in the form of pellets unless otherwise specified.

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

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This edition includes the addition of an ISO equivalency statement and a Keywords section, the elimination of superfluous references to user/seller agreements, and the removal of specific requirements relating to Federal/Military procurement. Some references to *specimens* were changed to *samples* in keeping with normal usage within ASTM materials standards.

<sup>2</sup> Annual Book of ASTM Standards, Vol 08.01.

<sup>3</sup> Discontinued, see 1982 Annual Book of ASTM Standards, Vol 08.01.

<sup>4</sup> Annual Book of ASTM Standards, Vol 08.02.