



Designation: D7436 – 17 (Reapproved 2024)

Standard Classification System for Unfilled Polyethylene Plastics Molding and Extrusion Materials with a Fractional Melt Index Using ISO Protocol and Methodology¹

This standard is issued under the fixed designation D7436; 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.

INTRODUCTION

This material specification is intended to provide a callout system for polyethylene utilizing specimen preparation procedures and test methods based primarily on ISO standards.

1. Scope

1.1 This classification system provides for the identification of unfilled polyethylene plastics molding and extrusion materials, with a melt index of $<1\text{g}/10\text{ min}$, in such a manner that the supplier and the user agree on the acceptability of different commercial lots or shipments. The tests involved in this specification are intended to provide information for identifying materials in accordance with the groups, classes, and grades covered. It is not the function of this classification system to provide specific engineering data for design purposes.

1.2 This classification system allows for the use of recycled polyethylene materials provided that the requirements as stated in this classification system are met. The proportions of recycled material used, as well as the nature and amount of any contaminant, however, will not be covered in this specification.

NOTE 1—See Guide D7209 for information and definitions related to recycled plastics.

1.3 The properties included in this classification system are those required to identify the compositions covered. There may be other requirements necessary to identify particular characteristics important to specialized applications. These shall be agreed upon between the user and the supplier by using the suffixes given in Section 5.

1.4 This classification system and subsequent line callout (specifications) 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 the performance requirements of the part, the environment to which it will be exposed, the fabrication process to be employed, the costs involved, and the inherent properties of the material other than those covered by this classification system.

1.5 The values stated in SI units are regarded as the standard.

1.6 The following precautionary caveat pertains to the test method portion only, Section 12 of this classification system. *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 For information regarding plastic pipe materials, see Specification D3350. For information regarding wire and cable materials, see Specification D1248. For information regarding classification of PE molding and extrusion materials using ASTM test methods, see Specification D4976.

NOTE 2—There is no known ISO equivalent to this standard.

1.8 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²
D883 Terminology Relating to Plastics

¹ This classification system 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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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.