



Standard Classification System for and Basis for Specifications for Thermoplastic Polyester (TPES) Injection and Extrusion Materials Based on ISO Test Methods¹

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INTRODUCTION

This material classification system is intended to provide a callout system for thermoplastic polyester materials based on ISO test methods.

1. Scope*

1.1 This classification system covers thermoplastic polyester materials suitable for molding or extrusion.

1.2 This classification system allows for the use of recycled thermoplastic polyester materials provided that the requirements as stated in this classification system and subsequent line callout (specification) are met. The proportions of recycled material used, as well as the nature and amount of any contaminant, however, cannot be covered practically in this specification.

1.3 The properties included in this standard are those required to identify the compositions covered. Other requirements necessary to identify particular characteristics important to specialized applications are to be specified by using the suffixes as given in Section 5.

1.4 This classification system and subsequent line callout (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 can be made by those having expertise in the plastic field only after careful consideration of the design and performance required of the part, the environment to which it will be exposed, the fabrication process to be used, the costs involved, and the inherent properties of the material other than those covered by this specification.

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

1.6 The following hazards caveat pertains only to the test methods 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—This standard and ISO 7792-1:2012 and ISO 7792-2:2012 address the same subject matter, but differ in technical content.

2. Referenced Documents

2.1 ASTM Standards:²

D883 Terminology Relating to Plastics

D1600 Terminology for Abbreviated Terms Relating to Plastics

D3892 Practice for Packaging/Packing of Plastics

D4000 Classification System for Specifying Plastic Materials

D7209 Guide for Waste Reduction, Resource Recovery, and Use of Recycled Polymeric Materials and Products

E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

2.2 IEC and ISO Standards:³

IEC 112 Recommended Method for Determining the Comparative Tracking Index of Solid Insulation Materials

IEC 243 Recommended Methods of Test for Electrical Strength of Solid Insulating Materials at Power Frequencies

ISO 62 Plastics—Determination of Water Absorption

¹ 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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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.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.