



Standard Classification System for Reinforced and Filled Poly(Phenylene Sulfide) (PPS) Injection Molding and Extrusion Materials Using ASTM Methods¹

This standard is issued under the fixed designation D 4067; 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.

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

1. Scope*

1.1 This classification system covers reinforced and filled poly(phenylene sulfide) materials suitable for injection molding and extrusion.

1.2 This classification system is not intended for the selection of materials, but only as a means to call out plastic materials to be used for the manufacture of parts. The selection of these materials shall be made by personnel with expertise in the plastics field where the environment, inherent properties of the materials, performance of the parts, part design, manufacturing process, and economics are considered.

1.3 The properties included in this classification system are those required to identify the compositions covered. If necessary, other requirements identifying particular characteristics important to specific applications shall be designated by using the suffixes given in Section 5 or Classification System D 4000.

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

1.5 This precautionary statement pertains only to the test method portion of this classification system, Section 12. *This standard does not purport to address all of the safety concerns 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 known ISO equivalent to this standard.

2. Referenced Documents

2.1 ASTM Standards:²

D 256 Test Methods for Determining the Izod Pendulum

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.

Impact Resistance of Plastics²

D 618 Practice for Conditioning Plastics for Testing²

D 638 Test Method for Tensile Properties of Plastics²

D 648 Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position²

D 790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials²

D 792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement²

D 883 Terminology Relating to Plastics²

D 1238 Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer²

D 1600 Terminology for Abbreviated Terms Relating to Plastics²

D 1898 - 68(1989) Practice for Sampling of Plastics³

D 3418 Test Method for Transition Temperatures of Polymers by Differential Scanning Calorimetry²

D 3641 Practice for Injection Molding Test Specimens of Thermoplastic Molding and Extrusion Materials²

D 3835 Test Method for Determination of Properties of Polymeric Materials by Means of a Capillary Rheometer²

D 3892 Practice for Packaging/Packing of Plastics²

D 4000 Classification System for Specifying Plastic Materials²

D 5630 Test Method for Ash Content in Plastics²

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specification²

E 595 Test Method for Total Mass Loss and Collected Volatile Condensable Materials from Outgassing in a Vacuum Environment²

E 662 Test Method for Specific Optical Density of Smoke Generated by Solid Materials²

2.2 Military Standards:⁴

MIL-P-46174 (MR) Plastic Molding Material, Polyphenylene Sulfide, Glass Fiber Reinforced

³ Discontinued; see 1997 Annual Book of ASTM Standards, Vol 08.01.

⁴ Available from Standardization Documents, Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

*A Summary of Changes section appears at the end of this standard.

