



Designation: D4067 – 21

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

This standard is issued under the fixed designation D4067; 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 U.S. 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 D4000.

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

NOTE 1—There is no known ISO equivalent to this standard.

NOTE 2—ASTM Standard D6358 provides a classification system for the same materials covered in this standard, along with additional PPS materials, with the major difference being its use of ISO test methods, versus the use of ASTM test methods in this standard. The user of this standard is encouraged to evaluate switching to the use of Standard D6358 as it is more up to date with current practices.

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, 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 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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1.6 *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

- D256 Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics
- D618 Practice for Conditioning Plastics for Testing
- D638 Test Method for Tensile Properties of Plastics
- D648 Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position
- D790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- D792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
- D883 Terminology Relating to Plastics
- D1238 Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer
- D1600 Terminology for Abbreviated Terms Relating to Plastics
- D3418 Test Method for Transition Temperatures and Enthalpies of Fusion and Crystallization of Polymers by Differential Scanning Calorimetry
- D3641 Practice for Injection Molding Test Specimens of Thermoplastic Molding and Extrusion Materials
- D3835 Test Method for Determination of Properties of Polymeric Materials by Means of a Capillary Rheometer
- D3892 Practice for Packaging/Packing of Plastics
- D4000 Classification System for Specifying Plastic Materials

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.

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