



Standard Specification for and Basis for Specifications for Styrene-Acrylonitrile (SAN) Injection and Extrusion Materials¹

This standard is issued under the fixed designation D4203; 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 specification covers unfilled, filled, and reinforced styrene acrylonitrile (SAN) materials suitable for injection molding and extrusion.

1.2 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 the performance required 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 standard.

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 using the suffixes specified in Section 5.

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

1.5 The following precautionary 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 4894-1 and ISO 4894-2 address the same subject matter, but differ in technical content. Although this standard and ISO 4894-1 and ISO 4894-2 differ in approach or detail, data obtained using either are technically equivalent.

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.15.03).

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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

D1525 Test Method for Vicat Softening Temperature of Plastics

D1600 Terminology for Abbreviated Terms Relating to Plastics

D2584 Test Method for Ignition Loss of Cured Reinforced Resins

D3641 Practice for Injection Molding Test Specimens of Thermoplastic Molding and Extrusion Materials

D3892 Practice for Packaging/Packing of Plastics

D4000 Classification System for Specifying Plastic Materials

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

E105 Practice for Probability Sampling of Materials

IEEE/ASTM SI-10 Standard for Use of the International System of Units (SI): The Modern Metric System

2.2 ISO Standards:³

ISO 75 Plastics—Determination of Temperature of Deflection Under Load

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>.

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