



Standard Specification for Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe¹

This standard is issued under the fixed designation D2609; 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 specification covers plastic insert fittings for polyethylene (PE) plastic pipe, and also PVC insert fittings for PE to PVC pipe transitions. Included are requirements for materials, workmanship, dimensions, and burst pressure.

1.2 The text of this specification references notes, footnotes, and appendixes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the specification.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 The following safety hazards caveat pertains only to the test methods portion, Section 8, 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *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

¹ This specification is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.10 on Fittings. Current edition approved April 1, 2024. Published April 2024. Originally approved 1967. Last previous edition approved in 2021 as D2609–21. DOI: 10.1520/D2609-24.

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.

- D648 Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position
 - D789 Test Method for Determination of Relative Viscosity of Concentrated Polyamide (PA) Solutions
 - D1599 Test Method for Resistance to Short-Time Hydraulic Pressure of Plastic Pipe, Tubing, and Fittings
 - D1600 Terminology for Abbreviated Terms Relating to Plastics (Withdrawn 2024)³
 - D1784 Classification System and Basis for Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds
 - D2239 Specification for Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter
 - D2466 Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40
 - F412 Terminology Relating to Plastic Piping Systems
 - F1498 Specification for Taper Pipe Threads 60° for Thermoplastic Pipe and Fittings
- 2.2 NSF/ANSI Standards:⁴
- NSF/ANSI Standard No. 14 for Plastic Piping Components and Related Materials
 - NSF/ANSI Standard No. 61 for Drinking Water System Components—Health Effects

3. Terminology

3.1 Definitions are in accordance with Terminology F412 and abbreviations are in accordance with Terminology D1600, unless otherwise specified.

4. Classification

4.1 This specification covers one class of fittings suitable for use with PE plastic pipe that meet the requirements of applicable ASTM specifications, at present, this is Specification D2239.

4.2 This specification also covers fittings that transition from PE plastic pipe to Socket Type IPS PVC plastic pipe.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from NSF International, P.O. Box 130140, 789 N. Dixboro Rd., Ann Arbor, MI 48105, <http://www.nsf.org>.

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