



Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe¹

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

1. Scope*

1.1 This specification covers elastomeric seals (gaskets) used to seal the joints of plastic pipe used for gravity, low-pressure, and high-pressure applications. This refers to push-on joints which require no internal or external pressure to effect the initial seal.

1.2 Requirements are given for natural or synthetic rubber gaskets, or a combination of both.

1.3 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.

1.4 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.

1.5 The following precautionary caveat pertains only to the test method portion, Section 7, 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 consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

D395 Test Methods for Rubber Property—Compression Set
D412 Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension
D471 Test Method for Rubber Property—Effect of Liquids
D518 Test Method for Rubber Deterioration—Surface

Cracking (Withdrawn 2007)³

D573 Test Method for Rubber—Deterioration in an Air Oven

D883 Terminology Relating to Plastics

D1149 Test Methods for Rubber Deterioration—Cracking in an Ozone Controlled Environment

D1229 Test Method for Rubber Property—Compression Set at Low Temperatures

D1349 Practice for Rubber—Standard Conditions for Testing

D1414 Test Methods for Rubber O-Rings

D1415 Test Method for Rubber Property—International Hardness

D1566 Terminology Relating to Rubber

D2240 Test Method for Rubber Property—Durometer Hardness

F913 Specification for Thermoplastic Elastomeric Seals (Gaskets) for Joining Plastic Pipe

2.2 NSF Standards:

Standard No. 14 for Plastic Piping Components and Related Materials⁴

Standard No. 61 for Drinking Water Systems Components—Health Effects⁴

3. Terminology

3.1 *Definitions*—Terms relating to rubber or elastomer shall be as defined in Terminology D1566. Terms relating to plastics shall be as defined in Terminology D883.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *sealing portion of the gasket*—any part of the elastomeric material that is in deformation which provides seals between the bell and spigot of adjoining sections of pipe.

4. Composition and Manufacture

4.1 All gaskets shall be extruded or molded in such a manner that any cross section will be dense, homogeneous, and free of porosity, blisters, pitting, or other defects that make

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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 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 48113-0140, http://www.nsf.org.