



Standard Specification for Multilayer Thermoplastic And Flexible Steel Pipe And Connections¹

This standard is issued under the fixed designation F2805; 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.

1. Scope*

1.1 This specification covers requirements and test methods for materials, dimensions, workmanship, markings for factory manufactured multilayer flexible steel pipe with thermoplastic inner and outer layers and end connections (Fig. 1). It covers nominal sizes 2 in. through 8 in. (50 mm through 200 mm). Flexible steel pipes are multilayered pipe products manufactured in long continuous lengths and reeled for storage, transport and installation. The multilayer thermoplastic and flexible steel pipe governed by this standard are intended for use for the transport of crude oil, natural gas, hazardous chemicals, industrial chemicals and water.²

1.2 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.

1.3 *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.*

2. Referenced Documents

2.1 ASTM Standards:³

¹ This specification is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.68 on Energy Piping Systems.

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² The multilayer thermoplastic and flexible steel pipe and connections described in this standard is covered by patents (FlexSteel Pipeline Technologies, 500 Dallas Street Suite 500, Houston, TX 77002, USA). Interested parties are invited to submit information regarding the identification of acceptable alternatives to this patented item to the Committee on Standards, ASTM Headquarters, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. Your comments will receive careful consideration at a meeting of the responsible technical committee which you may attend.

³ 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.

A109/A109M Specification for Steel, Strip, Carbon (0.25 Maximum Percent), Cold-Rolled
A312/A312M Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes
A333/A333M Specification for Seamless and Welded Steel Pipe for Low-Temperature Service and Other Applications with Required Notch Toughness
A506 Specification for Alloy and Structural Alloy Steel, Sheet and Strip, Hot-Rolled and Cold-Rolled
A519 Specification for Seamless Carbon and Alloy Steel Mechanical Tubing
D792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
D1505 Test Method for Density of Plastics by the Density-Gradient Technique
D1600 Terminology for Abbreviated Terms Relating to Plastics
D2122 Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
D2765 Test Methods for Determination of Gel Content and Swell Ratio of Crosslinked Ethylene Plastics
D3350 Specification for Polyethylene Plastics Pipe and Fittings Materials
F412 Terminology Relating to Plastic Piping Systems

2.2 ASME Standard:⁴

B16.5 Pipe Flanges and Flanged Fittings: NPS ½ through NPS 24 Metric/Inch Standard

⁴ Available from American Society of Mechanical Engineers (ASME), ASME International Headquarters, Two Park Ave., New York, NY 10016-5990, <http://www.asme.org>.

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