



Standard Specification for Glass Fiber Reinforced Polyethylene (PE-GF) Spiral Wound Large Diameter Pipe¹

This standard is issued under the fixed designation F2720/F2720M; 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, joining systems, and marking for large diameter, 12 in. [300 mm] and larger, inside diameter controlled glass fiber reinforced polyethylene (PE-GF) spiral wound pipe with electrofusion joints. The piping is intended for new construction and renewal of existing piping systems used for the transport of water, slurries, municipal sewage, domestic sewage, effluents, etc., in pressure systems.

NOTE 1—Pipe produced to this specification should be installed in accordance with Practice D2774 or F1668, where applicable, and with the manufacturer's recommendations.

1.2 The values stated in either inch-pound units or SI units are to be regarded separately as standard. Within the text the SI units are shown in brackets. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.3 All pipes produced under this specification are pressure-rated.

1.4 This specification includes criteria for choice of raw material and test methods for evaluation of raw material, together with performance requirements and test methods for determining conformance with the requirements.

1.5 In referee decisions, the SI units shall be used for metric-sized pipe and inch-pound units for pipe sized per ANSI (ANSI B 36.10).

1.6 *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:²

- D618 Practice for Conditioning Plastics for Testing
- D638 Test Method for Tensile Properties of Plastics
- 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
- D1505 Test Method for Density of Plastics by the Density-Gradient Technique
- D1598 Test Method for Time-to-Failure of Plastic Pipe Under Constant Internal Pressure
- D1600 Terminology for Abbreviated Terms Relating to Plastics
- D2122 Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
- D2657 Practice for Heat Fusion Joining of Polyolefin Pipe and Fittings
- D2774 Practice for Underground Installation of Thermoplastic Pressure Piping
- D2837 Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure Design Basis for Thermoplastic Pipe Products
- D3350 Specification for Polyethylene Plastics Pipe and Fittings Materials
- D3895 Test Method for Oxidative-Induction Time of Polyolefins by Differential Scanning Calorimetry
- F412 Terminology Relating to Plastic Piping Systems
- F1290 Practice for Electrofusion Joining Polyolefin Pipe and Fittings
- F1668 Guide for Construction Procedures for Buried Plastic Pipe

2.2 ANSI Standard:

- B36.10 Standard Dimensions of Steel Pipe (IPS)³

¹ This specification is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.11 on Composite.

Current edition approved Dec. 1, 2009. Published March 2010. Originally approved in 2008. Last previous edition approved in 2008 as F2720/F2720M-08. DOI:10.1520/F2720_F2720M-09.

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>.