



Standard Specification for Polyvinylidene Fluoride (PVDF) Corrosive Waste Drainage Systems¹

This standard is issued under the fixed designation F 1673; 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 for polyvinylidene drainage systems for corrosive applications. Requirements for material, pipe and fittings are included. Polyvinylidene fluoride includes emulsion/suspension polymerization and copolymers of vinylidene fluoride/hexafluoropropylene produced by either method.

1.2 These requirements apply to Schedule 40 and 80 IPS and SDR 21 pipe sizes. Pipe and fittings are to be joined by heat fusion or mechanical methods using the equipment supplied by the manufacturers.

1.3 This specification is not intended to provide for interchangeability between plastic pipe and fittings from different manufacturers, but it does allow for transition fittings for joining one manufacturer's product to another's product, provided the joining technique used is other than heat fusion.

1.4 This specification is not for polyvinylidene pressure systems.

1.5 The values stated in inch-pound units are to be regarded as the standard. The values in parentheses are for information only.

1.6 Notes and appendixes are not a mandatory part of this specification.

1.7 The following safety hazard caveat pertains only to the test method 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

- D 543 Test Method for Resistance of Plastics to Chemical Reagents²
- D 570 Test Method for Water Absorption of Plastics²
- D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing²
- D 883 Terminology Relating to Plastics²

D 1599 Test Method for Short-Time Hydraulic Failure Pressure of Plastic Pipe, Tubing, and Fittings³

D 1600 Terminology for Abbreviated Terms Relating to Plastics²

D 2122 Method for Determining Dimensions of Thermoplastic Pipe and Fittings³

D 2321 Practice for Underground Installation of Flexible Thermoplastic Sewer Pipe³

D 2412 Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading³

D 2444 Test Method for Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)³

D 2657 Practice for Heat Joining of Polyolefin Pipe and Fittings³

D 3222 Specification for Unmodified Poly(Vinylidene Fluoride) (PVDF) Molding, Extrusion, and Coating Materials⁴

D 3311 Specification for Drain, Waste, and Vent (DWV) Plastic Fittings Patterns³

F 412 Terminology Relating to Plastic Piping Systems³

F 1290 Practice for Electrofusion Joining Polyolefin Pipe and Fittings³

F 1498 Specification for Taper Pipe Threads (60°) and Thermoplastic Pipe and Fittings³

2.2 *Federal Standard:*

Fed. Std. No. 123 Marking for Shipment⁵

2.3 *Military Standard:*

MIL-STD 129 Marking for Shipment and Storage⁵

2.4 *Other Standard: Uniform Plumbing Code*⁶

3. Terminology

3.1 Definitions:

3.1.1 Definitions used in this specification are in accordance with the definitions given in Terminologies D 833 and F 412 and abbreviations are in accordance with Terminology D 1600, unless otherwise indicated.

3.1.2 The plumbing terminology used in this specification is in accordance with the definitions given in the *Uniform*

¹ This specification is under the jurisdiction of ASTM Committee F-17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.63 on DWV. Current edition approved Dec. 10, 1995. Published February 1996.

² *Annual Book of ASTM Standards*, Vol 08.01.

³ *Annual Book of ASTM Standards*, Vol 08.04.

⁴ *Annual Book of ASTM Standards*, Vol 08.02.

⁵ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁶ Available from the International Association of Plumbing and Mechanical Officials, 20001 Walnut Drive South, Walnut, CA 91789-2825.