



Standard Specification for Poly(Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings¹

This standard is issued under the fixed designation F 679; 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, flattening resistance, impact resistance, pipe stiffness, extrusion quality, joining system, and a form of marking for large diameters, 18 to 48 in. (475 to 1200 mm) poly(vinyl chloride) (PVC) sewer pipe and fittings with integral bell elastomeric seal joints and smooth inner walls.

1.2 The requirements of this specification are intended to provide pipe and fittings suitable for nonpressure drainage of sewage and surface water. Pipe and fittings produced to this specification should be installed in accordance with Practice D 2321.

NOTE 1—Industrial waste disposal lines should be installed only with the specific approval of the governing code authority since temperatures in excess of 140°F (60°C) and chemicals not commonly found in drains and sewers may be encountered.

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

1.4 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 problems, 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 or regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

- D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing²
- D 1600 Terminology for Abbreviated Terms Relating to Plastics²
- D 1784 Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds³

¹ This specification is under the jurisdiction of ASTM Committee F-17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.62 on Sewer Pipe.

Current edition approved September 10, 2000. Published December 2000. Originally published as F 679 – 80. Last previous edition F 679 – 95.

² Annual Book of ASTM Standards, Vol 08.01.

³ Annual Book of ASTM Standards, Vol 08.02.

D 2122 Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings⁴

D 2152 Test Method for Degree of Fusion of Extruded Poly(Vinyl Chloride) (PVC) Pipe and Molded Fittings by Acetone Immersion⁴

D 2321 Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications⁴

D 2412 Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading⁴

D 2444 Test Method for Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)⁴

D 2855 Practice for Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings⁴

D 3212 Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals⁴

F 402 Practice for Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings⁴

F 412 Terminology Relating to Plastic Piping Systems⁴

F 477 Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe⁴

2.2 Federal Standard:

Fed. Std. No. 123 Marking for Shipment (Civil Agencies)⁵

2.3 Military Standard:

MIL-STD-129 Marking for Shipment and Storage⁵

3. Terminology

3.1 Definitions:

3.1.1 *General*—Definitions used in the specification are in accordance with Terminology F 412, unless otherwise indicated. The abbreviation for poly(vinyl chloride) pipe is PVC, in accordance with Terminology D 1600.

4. Materials

4.1 *Basic Materials*—The pipe shall be made of PVC plastic having a minimum cell classification of 12364C or 12454C as defined in Specification D 1784. Homopolymer PVC compounds must equal or exceed the requirements of the above listed minimum cell classification number.

⁴ Annual Book of ASTM Standards, Vol 08.04.

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