



Standard Specification for Type PS-46 and Type PS-115 Poly(Vinyl Chloride) (PVC) Plastic Gravity Flow Sewer Pipe and Fittings¹

This standard is issued under the fixed designation F 789; 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 reappraisal. A superscript epsilon (ε) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This specification covers requirements and test methods for materials, dimensions, workmanship, flattening resistance, impact resistance, pipe stiffness, extrusion quality, joining systems, and a form of marking for Type PS-46 and Type PS-115 poly(vinyl chloride) (PVC) plastic, gravity flow sewer pipe having a minimum pipe stiffness of 46 psi (320 kPa) and 115 psi (790 kPa), respectively, and fittings.

1.2 Pipe and fittings produced to this specification shall be installed in accordance with Practice D 2321.

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

1.4 The following precautionary 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 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing²
- D 1784 Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds^{3,4}
- 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

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² Annual Book of ASTM Standards, Vol 08.01.

³ Annual Book of ASTM Standards, Vol 08.02.

⁴ Annual Book of ASTM Standards, Vol 08.04.

- 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 2564 Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems⁴
- 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) is PVC.

3.1.2 The terms PS-46 and PS-115 are not abbreviations but rather arbitrary designations for products having minimum pipe stiffnesses, at 5 % deflection, of 46 psi (320 kPa) and 115 psi (790 kPa) when tested in accordance with Test Method D 2412.

4. Significance and Use

4.1 The requirements of this specification are intended to provide pipe and fittings suitable for nonpressure drainage of sewage and surface water.

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

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