



Standard Specification for Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems¹

This standard is issued under the fixed designation F 1412; 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 non-pressure polyolefin pipe and fittings for corrosive waste drainage systems.

1.2 This specification is a companion to the Canadian Standard, CAN/CSA-B181.3.²

1.3 Pipe is produced in Schedule 40 and 80 IPS sizes in two polyolefins, polyethylene (PE) and polypropylene (PP).

1.4 The interchangeability of pipe and fittings made by different manufacturers is not addressed in this specification. Transition fittings for joining pipe and fittings of different manufacturers is provided for in this specification.

1.5 Pipe and fittings are joined by the heat fusion method (D 2657 and F 1290) or by using mechanical joints recommended by the manufacturer.

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

1.7 The following safety hazards caveat pertains only to the test method, 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 Reagents³

D 570 Test Method for Water Absorption of Plastics³

D 618 Practice for Conditioning Plastics and Electrical Insulating Materials for Testing³

D 1248 Specification for Polyethylene Plastics Molding and Extrusion Materials³

D 1600 Terminology for Abbreviated Terms Relating to Plastics³

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

D 2321 Practice for Underground Installation of Flexible 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 2657 Practice for Heat Fusion Joining of Polyolefin Pipe and Fittings⁴

D 3311 Specification for Drain, Waste, and Vent (DWV) Plastic Fittings Patterns⁴

D 3350 Specification for Polyethylene Plastics Pipe and Fittings Materials⁵

D 4101 Specification for Propylene Plastic Injection and Extrusion Materials⁵

F 412 Terminology Relating to Plastic Piping Systems⁴

F 1290 Practice for Electrofusion Joining Polyolefin Pipe and Fittings⁴

F 1498 Specification for Taper Pipe Threads 60° for Thermoplastic Pipe and Fittings⁴

2.2 Federal Standard:

Fed. Std. No. 123 Marking for Shipment (Civil Agencies)⁶

2.3 Military Standard:

MIL-STD-129 Marking for Shipment and Storage⁶

2.4 Canadian Standard:

CAN/CSA-B 181.3 Polyolefin Laboratory Drainage Systems²

2.5 Other Document:

Uniform Plumbing Code⁷

3. Terminology

3.1 Definitions:

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

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² Available from the Canadian Standards Association, 178 Rexdale Boulevard, Rexdale (Toronto), Ontario, Canada M 9W 1R3.

³ Annual Book of ASTM Standards, Vol 08.01.

⁴ Annual Book of ASTM Standards, Vol 08.04.

⁵ Annual Book of ASTM Standards, Vol 08.02.

⁶ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁷ Available from the International Association of Plumbing and Mechanical Officials, 20001 Walnut Drive South, Walnut, CA 91789-2825.