Designation: F512 – 12

Standard Specification for Smooth-Wall Poly(Vinyl Chloride) (PVC) Conduit and Fittings for Underground Installation[1]

This standard is issued under the fixed designation F512; 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 the requirements for single wall and coextruded cellular core smooth-wall poly(vinyl chloride) conduit and fittings for underground communication and electrical power wire and cables. Plastics which does not meet the material requirements specified in Section 5 is excluded from single layer and all coextruded layers.

1.2 The values given in parentheses are for information only.

1.3 The following safety hazards 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:*[2]

D618 Practice for Conditioning Plastics for Testing

D1600 Terminology for Abbreviated Terms Relating to Plastics

D1784 Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds

D2122 Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings

D2152 Test Method for Adequacy of Fusion of Extruded Poly(Vinyl Chloride) (PVC) Pipe and Molded Fittings by Acetone Immersion

D2412 Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading

D2444 Test Method for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)

D2466 Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40

D2564 Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems

D2855 Practice for Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings

F412 Terminology Relating to Plastic Piping Systems

3. Terminology

3.1 Definitions are in accordance with Terminology F412 and abbreviations are in accordance with Terminology D1600, unless otherwise specified. The abbreviation for poly(vinyl chloride) is PVC.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *cellular plastic*—a plastic containing numerous cells, intentionally introduced, interconnecting or not, distributed throughout the mass.

3.2.2 *coextruded pipe*—pipe consisting of two or more concentric layers of material bonded together in processing by any combination of temperature, pressure, grafting, cross-linking or adhesion.

3.2.3 *coextrusion*—a process whereby two or more heated or unheated plastic material streams, forced through one or more shaping orifice(s), become one continuously formed piece.

3.2.4 *external recycled material*—industrial rework generated by a different company manufacturing to this specification. Composition is known by the industrial source of the material.

3.2.5 *post-consumer recycled material*—finished goods that have been purchased by the public, then returned to industry and reprocessed into raw materials. Identity of finished goods is known by the reprocessing company.

3.2.6 *certificate of composition*—a certificate describing the certain properties of an external recycled material of a post consumer recycled material.

3.2.7 *composition disclosure*—a document describing the formulation of an external recycled material.

[1] This specification is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.25 on Vinyl Based Pipe.

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[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.

***A Summary of Changes section appears at the end of this standard**

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