



Standard Specification for Residential Central-Vacuum Tube and Fittings¹

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1. Scope

1.1 This specification covers the establishment of requirements and test methods for materials, dimensions and tolerances, flattening resistance and impact resistance of plastic tubing for use in central-vacuum systems for residential buildings.

1.2 All notes and footnotes shall be considered as nonmandatory requirements of the specification.

1.3 This specification does not apply to: inlet valve mounting plates of fittings directly connected to these plates, reducer fittings, mufflers exhaust vents, or flex tubing attached at the power unit location.

1.4 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.5 *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 requirements 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

- D2444 Test Method for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)
- D2564 Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems
- D2749 Symbols for Dimensions of Plastic Pipe Fittings
- D5033 Guide for Development of ASTM Standards Relating to Recycling and Use of Recycled Plastics (Withdrawn 2007)³
- F402 Practice for Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings
- F412 Terminology Relating to Plastic Piping Systems

3. Terminology

3.1 Definitions are in accordance with Terminology F412, abbreviations are in accordance with Terminology D1600, and dimension symbols are in accordance with Specification D2749.

3.2 Definitions of Terms Specific to This Standard:

- 3.2.1 *central-vacuum tubing, n*—piping used for central-vacuum systems, that is O.D. controlled.
- 3.2.2 *unaided eye, n*—observable without enhancement beyond correction for normal vision.

4. Significance and Use

4.1 The requirements of this specification are intended to provide tube and fittings for central-vacuum cleaning systems, used to convey debris from the vacuum inlets to the central-vacuum power units.

5. Materials

5.1 *Basic Materials*—The tube and fittings shall be made of virgin plastic having a cell classification of equivalent to or greater than that for poly (vinyl chloride) (PVC) 12454, 13354, and 12223, as defined in Specification D1784. Compounds that have different cell classifications, because one or more properties are superior to those of the specified compounds, are also acceptable.

¹ This specification is under the jurisdiction of ASTM Committee F11 on Vacuum Cleaners and is the direct responsibility of Subcommittee F11.50 on Special Vacuum Cleaner Types.

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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.

³ The last approved version of this historical standard is referenced on www.astm.org.