



Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe With a Cellular Core¹

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^{ε1} NOTE—Sections 2, 6.4.4, and the Summary of Changes were editorially corrected in March 2013.

^{ε2} NOTE—Table 2 was editorially corrected in April 2016.

1. Scope*

1.1 This specification covers coextruded acrylonitrile-butadiene-styrene (ABS) plastic drain, waste, and vent pipe made to Schedule 40 iron pipe sizes (IPS) and produced by the coextrusion process with concentric inner and outer solid ABS layers and the core consisting of closed-cell cellular ABS. Plastic which does not meet the material requirements specified in Section 5 is excluded from single layer and all coextruded layers.

1.2 Fittings suitable for use with pipe meeting the requirements of this specification are given in Annex A1. Fittings meeting the requirement of Specification D2661 are also acceptable.

1.3 Acrylonitrile-butadiene-styrene plastic which does not meet the definitions of virgin ABS plastic as given in 3.2.4 is excluded, as performance of plastic other than those defined as virgin was not determined. ABS rework plastic which meets the requirements of rework plastic as given in 5.3 is acceptable.

1.4 Reprocessed plastic or recycled plastic as defined in Terminology D883 is excluded.

1.5 Recommendations for storage, joining, and installation are provided in Appendixes X1, X2, and X3, respectively.

1.6 The text of this specification references notes, footnotes, and appendixes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the specification.

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

2. Referenced Documents

2.1 ASTM Standards:²

- D618 Practice for Conditioning Plastics for Testing
- D883 Terminology Relating to Plastics
- D1600 Terminology for Abbreviated Terms Relating to Plastics
- D1898 Practice for Sampling of Plastics (Withdrawn 1998)³
- D2122 Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
- D2235 Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings
- D2321 Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
- 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)
- D2661 Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe and Fittings
- D3311 Specification for Drain, Waste, and Vent (DWV) Plastic Fittings Patterns
- D3965 Classification System and Basis for Specifications for Rigid Acrylonitrile-Butadiene-Styrene (ABS) Materials for Pipe and Fittings
- D5630 Test Method for Ash Content in Plastics
- E105 Practice for Probability Sampling of Materials
- E1508 Guide for Quantitative Analysis by Energy-Dispersive Spectroscopy
- E122 Practice for Calculating Sample Size to Estimate, With Specified Precision, the Average for a Characteristic of a Lot or Process

¹ This specification is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.63 on DWV.

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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.

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