



Designation: D 2235 – 96a

AMERICAN SOCIETY FOR TESTING AND MATERIALS
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Standard Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings¹

This standard is issued under the fixed designation D 2235; 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 solvent cement for joining acrylonitrile-butadiene styrene (ABS) plastic pipe and fittings for pressure and nonpressure systems.

1.2 Recommendation for using solvent cement for joining acrylonitrile-butadiene-styrene (ABS) plastic pipe and fittings is given in Appendix X1. Satisfactory joining of pipe and fittings cannot be made in the presence of water, as water destroys the bonding ability of solvent cement; therefore, all materials must be dry for satisfactory joining.

1.3 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.

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

1.5 The following safety hazards caveat pertains only to the test methods portion, Section 7, 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 for Testing²
- D 740 Specification for Methyl Ethyl Ketone³
- D 883 Terminology Relating to Plastics²
- D 1084 Test Methods for Viscosity of Adhesives⁴
- D 1600 Terminology for Abbreviated Terms Relating to Plastics²
- D 1788 Specification for Rigid Acrylonitrile-Butadiene-Styrene (ABS) Plastics⁵

¹ This specification is under the jurisdiction of ASTM Committee F-17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.20 on Joining. Current edition approved Sept. 10, 1996. Published November 1996. Originally published as D 2235 – 63T. Last previous edition D 2235 – 96.

² *Annual Book of ASTM Standards*, Vol 08.01.

³ *Annual Book of ASTM Standards*, Vol 06.04.

⁴ *Annual Book of ASTM Standards*, Vol 15.06.

⁵ *Discontinued*—See 1990 *Annual Book of ASTM Standards*, Vol 08.02.

D 3965 Specification for Rigid Acrylonitrile-Butadiene-Styrene (ABS) Compounds for Pipe and Fittings⁶

F 402 Practice for Safe Handling of Solvent Cements, Primers, and Cleaners Used for Joining Thermoplastic Pipe and Fittings⁷

F 412 Terminology Relating to Plastic Piping Systems⁷

F 493 Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings⁷

2.2 Federal Standard:

Fed. Std. 123 Marking for Shipment (Civil Agencies)⁸

2.3 Military Standard:

MIL STD-129 Marking for Shipment and Storage⁸

2.4 National Sanitation Foundation Standards:

Standard No. 14 Plastic Piping Components and Related Materials⁹

Standard No. 61 for Drinking Water Systems Components—Health Effects⁹

3. Terminology

3.1 Definitions are in accordance with Terminologies D 883 and F 412. Abbreviations are in accordance with Terminology D 1600 unless otherwise indicated. The abbreviation for Acrylonitrile-Butadiene-Styrene plastic is ABS.

3.2 Definition of Term Specific to This Standard:

3.2.1 *solvent cement*—adhesive made by dissolving a plastic resin or compound in a suitable solvent or mixture of solvents. The solvent cement dissolves the surfaces of the pipe and fittings to form a bond between the mating surfaces provided the proper cement is used for the particular materials and proper techniques are followed.

4. Classification

4.1 Solvent cement shall be acrylonitrile-butadienestyrene plastic resin dissolved in methyl ethyl-ketone solvent.

NOTE 1—It is recommended that solvent cements made to this specification *not* be orange since that color is recommended for use with CPVC solvent cement under Specification F 493.

⁶ *Annual Book of ASTM Standards*, Vol. 08.02.

⁷ *Annual Book of ASTM Standards*, Vol 08.04.

⁸ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁹ Available from the National Sanitation Foundation, P.O. Box 1468, Ann Arbor, MI, 48106.