



Standard Specification for Solvent Cements for Styrene-Rubber (SR) Plastic Pipe and Fittings¹

This standard is issued under the fixed designation D3122; 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.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 This specification provides general requirements for styrene-rubber solvent cements to be used in joining styrene-rubber (SR) plastic pipe and fittings.

1.2 A recommended procedure for joining styrene-rubber pipe and fittings is given in the appendix.

1.3 The values stated in SI units are to be regarded as standard. The values given in parentheses after SI units are provided for information only and are not considered standard.

1.4 The following safety hazards caveat pertains only to the test methods portion, Section 6, 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D618 Practice for Conditioning Plastics for Testing

D1084 Test Methods for Viscosity of Adhesives

D1600 Terminology for Abbreviated Terms Relating to Plastics

D2852 Specification for Styrene-Rubber (SR) Plastic Drain Pipe and Fittings

E1953 Practice for Description of Thermal Analysis and Rheology Apparatus

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

F493 Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings

3. Terminology

3.1 *Definitions*—Definitions are in accordance with Terminology F412, and abbreviations are in accordance with Terminology D1600, unless otherwise specified.

4. General Requirements

4.1 The solvent cement shall be a solution of styrene-rubber (SR) plastic compound or resin meeting the following requirements.

4.1.1 The SR plastic compounds or resin shall contain at least 50 % styrene plastics, combined with rubbers to a minimum rubber content of 5 %, and compounding materials such as antioxidants and lubricants, and may contain up to 15 % acrylonitrile combined in the styrene plastics or rubbers, or both. The rubbers shall be of the polybutadiene or butadiene-styrene type, or both, with a maximum styrene content of 25 % or nitrile type or both. The combined styrene plastics and rubber content shall be not less than 90 %. No filler may be used. (See Specification D2852.)

4.2 Either virgin or clean rework material may be used provided that the rework material is generated from the solvent cement manufacturer's own production, is compatible with virgin material, and will produce a cement that meets the requirements of this specification.

4.3 The cement shall be free-flowing and shall not contain lumps, macroscopic undissolved particles, or any foreign matter that will adversely affect the ultimate joint strength or chemical resistance of the cement.

4.4 The cement shall show no gelatin. It shall show no stratification or separation that cannot be removed by stirring.

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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