



Designation: F 493 – 9704

An American National Standard

Standard Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings¹

This standard is issued under the fixed designation F 493; 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 Department of Defense.

1. Scope

1.1 This specification provides requirements for chlorinated poly(vinyl chloride) (CPVC) solvent cements to be used in joining chlorinated poly(vinyl chloride) pipe, tubing, and socket-type fittings.

1.2 CPVC solvent cements are used with CPVC 41 chlorinated poly(vinyl chloride) pipe, tubing, and fittings, which meet Class 23447 as defined in Specification D 1784.

1.3 A recommended procedure for joining CPVC pipe and fittings is given in Appendix X1.

1.4 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.

1.5 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.6 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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

D 1084 Test Methods for Viscosity of Adhesives

D 1598 Test Method for Time-to-Failure of Plastic Pipe Under Constant Internal Pressure

D 1599 Test Method for Short-Time Hydraulic Failure Pressure of Plastic Pipe, Tubing, and Fittings

D 1784 Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds

D 2846/D 2846M Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems

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

F 412 Terminology Relating to Plastic Piping Systems

F 439 Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80

2.2 NSF Standards:

Standard No. 14 for Plastic Piping Components and Related Materials³

Standard No. 61 for Drinking Water Systems Components—Health Effects³

3. Terminology

3.1 *Definitions*—The definitions in this specification are in accordance with Terminology F 412.

4. General Requirements

4.1 The solvent cement shall be a solution of the base CPVC resin used to make Class 23447, chlorinated poly(vinyl chloride) molding or extrusion compound as defined in Specification D 1784.

¹ This specification is under the jurisdiction of ASTM Committee F17 on Plastic Piping Systems and is the direct responsibility of Subcommittee F17.20 on Joining. Current edition approved May 10, 1997; 1, 2004. Published November 1997; June 2004. Originally published as F 493–77; approved in 1977. Last previous edition approved in 1997 as F 493 – 967.

² *Annual Book of ASTM Standards*, Vol 15.06.

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.

Annual Book of ASTM Standards, Vol 08.04.

³ Available from the National Sanitation Foundation, P.O. Box 1468, Ann Arbor, MI 48106.