

Installation Standard for CPVC SOLVENT CEMENTED HOT AND COLD WATER DISTRIBUTION SYSTEMS

IAPMO IS 20-2006

1.0 SCOPE

1.1 This standard shall govern the installation of CPVC piping (IPS pipe and SDR-11 tubing) in potable hot and cold water distributing systems within buildings. (For allowable locations and pressure, see Sections 2.9.2 and 2.9.4) Installation, material and inspection shall comply with the current edition of the UPC [UPC]TM, published by the International Association of Plumbing and Mechanical Officials, and shall also comply with this standard.

Note: The following sections of the Uniform Plumbing Code apply to CPVC IPS piping and SDR-11 tubing.

103.5	Inspections
301.1	Minimum Standards
310.0	Workmanship
311.0	Prohibited Fittings and Practices
313.0	Protection of Piping, Materials and Structures
314.0	Hangers and Supports
316.2.3	Plastic Pipe to Other Materials
Chapter 6	Water Supply and Distribution

Chapter 2* Definitions

205.0	CPVC	Chlorinated Poly (Vinyl Chloride) Pipe or tubing "Pipe" or "Piping" includes both pipe and piping, unless specified as "IPS Pipe" or "tubing".
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Table 14-1

Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot and Cold Water Distribution System	ASTM D 2846
Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80	ASTM F 441
Socket Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings Schedule 40	ASTM F 438
Socket Type Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe Fittings Schedule 80	ASTM F 439
Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe and Fittings	ASTM F 493

ABBREVIATIONS

ASTM	American Society for Testing and Materials
IAPMO	International Association of Plumbing and Mechanical Officials

UPC Uniform Plumbing Code published by IAPMO

*The first three numbers refer to the corresponding section of the UPC.

2.0

PRODUCT REQUIREMENTS

2.1

Minimum Standards

2.1.1

Materials. Materials shall comply with the following:

Materials	ASTM Standard
Raw Material-CPVC	23447
IPS Pipe	
Sch. 40 (1/2 in., 3/4 in. and 1 in.)	F 441
(12.7 mm, 19.1 mm, and 25.4 mm)	
Sch. 80 (1/2 in. – 2 in.)	F 441
(12.7 mm – 51 mm)	
Tubing	
SDR 11 (1/2 in. thru 2 in.)	D 2846
(12.7 mm – 51mm)	
Fittings	
Sch. 40 (1/2 in., 3/4 in. & 1 in.)	F 438
(12.7 mm, 19.1 mm, and 25.4 mm)	
Sch. 80 (1/2 in. – 2 in.)	F 439
(12.7 mm – 51mm)	
Tube Fittings (1/2 in. – 2 in.)	D 2846
(12.7 mm – 51 mm)	

2.1.2

Primer. Listed primers shall be used that are compatible with the type of listed CPVC cement and pipe used. The primer shall be a true solvent for CPVC, containing no slow drying ingredient. Cleaners shall not be allowed to be used as a substitute or equivalent for a listed primer.

Exception: Listed solvent cements that do not require the use of primer shall be permitted for use with CPVC pipe and fittings, manufactured in accordance with ASTM D 2846, 1/2 inch through 2 inches in diameter.

Note: Manufacturer shall provide test data from an independent testing laboratory acceptable to the Administrative Authority that their CPVC pipe, together with recommended fittings has a Short Term Working Pressure (STWP) and Temperature Rating of 150 psi (1030 kPa) at 210°F (99°C) for 48 hours or more.