

IAPMO PS 110-~~2006a~~2019

PUBLIC REVIEW DRAFT

PVC Cold Water
Compression Fittings



IAPMO Standard

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PVC Cold Water Compression Fittings

1 ~~Purpose~~Scope

1.1 General

1.1.1 ~~The purpose of~~This standard ~~is to establish a generally acceptable quality and performance level for~~covers PVC cold water compression fittings. ~~Its purpose is to serve as a guide for producers, distributors, architects, engineers, contractors, installers, inspectors, and users; to promote understanding regarding materials and manufacture, and the installation; and to provide for identifying PVC cold water compression fittings that conform with the standard and~~ specifies requirements for materials, physical characteristics, performance testing, and markings.

~~2.2~~1.1.2 ~~_____~~ The PVC cold water compression fittings covered by this standard are intended for use on iron pipe size (IPS) and copper tube size (CTS) pipe, in locations as permitted by the Uniform Plumbing Code.

1.2 Alternative Materials

The ~~provisions~~requirements of this standard are not intended to prevent the use of ~~any alternate~~alternative materials or methods of construction, provided ~~any~~ such ~~alternate alternatives~~ meets the intent and requirements of this ~~document and changes are amended to this~~ standard.

1.3 Terminology

In this Standard,

- (a) "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy to comply with the Standard;
- (b) "should" is used to express a recommendation, but not a requirement;
- (c) "may" is used to express an option or something permissible within the scope of the Standard; and
- (d) "can" is used to express a possibility or a capability.

Notes accompanying sections of the Standard do not specify requirements or alternative requirements; their purpose is to separate explanatory or informative material from the text. Notes to tables and figures are considered part of the table or figure and can be written as requirements.

1.4 Units of Measurement

SI units are the primary units of record in global commerce. In this Standard, the inch/pound units are shown in parentheses. The values stated in each measurement system are equivalent in application, but each unit system is to be used independently. All references to gallons are to U.S. gallons.

1.5 Amendments

Proposals for amendments to this Standard will be processed in accordance with the standards-writing procedures of IAPMO.

~~2~~ **Scope**

~~2.1~~ This standard covers physical requirements and tests for types of materials, thickness, threads, dimensions, and other significant properties in addition to the general description of materials used. Certain features of construction and finish of the final product are also given together with the methods of marking and identification.

~~2.2~~ The PVC cold water compression fittings covered by this standard are intended for use on iron pipe size (IPS) and copper tube size (CTS) pipe, in locations as permitted by the Uniform Plumbing Code.

2 Reference Publications

This Standard refers to the following publications and, where such reference is made, it shall be to the current edition of those publications, including all amendments published thereto.

<u>ASTM D1784</u>	<u>Standard Specification for Rigid Poly(Vinyl Chloride) (PVC) Compounds and Chlorinated Poly(Vinyl Chloride) (CPVC) Compounds</u>
<u>ASTM D2466</u>	<u>Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40</u>
<u>ASTM D3139</u>	<u>Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals</u>
<u>ASME B1.20.1</u>	<u>Pipe Threads, General Purpose (Inch)</u>
<u>NSF 61</u>	<u>Drinking Water System Components - Health Effects</u>

3 **Definitions**

The following definitions shall apply in this Standard:

~~3.1~~ **Fittings** shall mean the complete assembly.

~~3.2~~ **Body** shall mean the central part.

~~3.3~~ **Cap** shall mean the end portion of the fitting including the tightening mechanism.

~~3.4~~ **The seal** shall mean the elastomeric portion of the fitting.

4 General Requirements

~~5.24.1~~ General

Fittings shall comply with all applicable requirements of ASTM D-2466, for schedule 40 PVC fittings.

~~4.14.2~~ Materials

Body and caps shall be manufactured from PVC, Type I, grade I, cell class 12454-B complying with the requirements of ASTM D-1784.

~~4.24.3~~ Connections

Body and cap shall be connected by use of general purpose threads complying with ASME B1.20.1 or per manufacturer's specifications and shall have a minimum five-thread engagement.

~~5~~ Detailed Requirements

~~5.14.4~~ Dimensions

Manufacturer shall specify dimensions and tolerances on seal and fitting assembly which shall meet the appropriate standards for intended use.

~~5.2 Fittings shall comply with all applicable requirements of ASTM D-2466, for schedule 40 PVC fittings.~~

~~5.34.5~~ Toxicity

Fittings shall comply with NSF 61 for Drinking Water Systems Components – Health Effects.

~~5.44.6~~ Seals and Gaskets

Seals and gaskets shall be of such design and quality to assure leak-proof joint and be capable of providing satisfactory field service. Flexible elastomeric seals or gasketed joints shall comply with ASTM D3139 section 8 using a rated minimum pressure of 1034 kPa (150 psi).

5 Testing Requirements

This section is reserved for later use.

6 Markings and Identifications Accompanying Literature

~~6.1~~ Each compression fitting assembly shall be marked as follows:

- (a) Manufacturer's name or trademark;
- (b) Part number; and
- (c) Size.