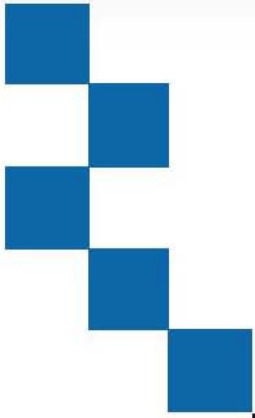


# Piping



■ PVC Rainwater Gutter & Fitting



## Chlorinated Poly (Vinyl Chloride) (CPVC)

Chlorinated Poly (Vinyl Chloride) (CPVC) is a thermoplastic pipe and fitting material made with CPVC compounds meeting the requirements of ASTM Class 23447 as defined in ASTM Specification D1784. CPVC applications are for potable water distribution, corrosive fluid handling in industry, and fire suppression systems.

CPVC piping systems are:

- Environmentally friendly
- Provide long service life
- Easy to install and handle
- Corrosion resistant
- Cost effective
- Widely accepted by codes

CPVC pipe for plumbing systems is manufactured by extrusion in sizes 1/2" through 2" copper tube size (CTS) dimensions. The CTS plumbing products are made to copper tube outside diameter dimensions, in accordance with ASTM D-2846 specifications, and have an SDR 11 wall thickness. The pressure ratings of the CTS SDR 11 systems are 400 psi (pounds per square inch) at 73 F and 100 psi at 180 F. CPVC plumbing pipe is sold in both straight lengths and (in small diameters) coils.

### Usage/Application

CPVC piping which is suitable for hot and cold water distribution has a 400 psi pressure rating at room temperature, and a 100 psi pressure rating at 180 F.

CPVC materials are resistant to many everyday household chemicals.

Since CPVC materials do not support combustion, they cannot burn without an external fuel source. This property makes CPVC pipe an attractive alternative to steel and copper pipe for fire sprinkler applications. CPVC fire sprinkler piping systems are approved for light hazard applications and for use in single and multifamily dwellings. Installation shall be in accordance with the NFPA Section 13, 13D, and 13R.

### Code Status

CPVC piping for potable hot and cold water distribution system is recognized in all model plumbing codes.

Also, CPVC plumbing pipe is safe for installation in return air plenums; however, the installation must be approved by the local jurisdiction. Even though CPVC is considered a combustible material it will not burn without a significant external flame source. Once the flame source is removed CPVC will not sustain combustion. Testing indicates that water filled CPVC in diameters 3" or less will pass the 25/50 flame smoke developed requirements for non-metallic material in return air plenums.

CPVC fire sprinkler pipe tested and listed in accordance with UL 1887, "Fire Test of Plastic Sprinkler Pipe for Flame and Smoke Characteristics," meets the requirements of NFPA 90A for installation in return air plenums.

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### Availability

CPVC pipe and fittings are produced by many manufacturers, and are available in Schedule 40 and Schedule 80 dimensions, as well as CPVC tubing which is suitable for potable hot and cold water distribution. The tubing is based on copper tube sizes (OD) and IPS pipe (OD), with SDR 11 wall thicknesses.

### Marking

CPVC pipe must be labeled at not more than 1.5 meters (5 feet) intervals as follows:

1. The manufacturer's name or trademark
2. The standard to which it conforms
3. Pipe size
4. Resin type or cell class according to ASTM D-1784, e.g. CPVC 23447
5. Pressure rating
6. SDR number or Schedule number
7. If the pipe is for potable water, a laboratory seal or mark attesting to suitability for potable water

## CPVC Hot & Cold Water Supply Series

<p><b>Coupling(M01)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>	<p><b>90 Deg Elbow(M02)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm 3/4"x1/2"mm</p>	<p><b>Tee(M03)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>
<p><b>45 Deg Elbow(M04)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>	<p><b>Reducing Coupling(M07)</b></p> 	<p>Size x Wall Thickness(mm): 3/4"x1/2"mm 1"x1/2"mm 1"x3/4"mm 1-1/4"x3/4"mm 1-1/4"x1"mm 1-1/2"x1"mm 1-1/2"x1-1/4"mm 2"x1-1/4"mm 2"x1-1/2"mm</p>	<p><b>Reducing Tee(M10)</b></p> 	<p>Size x Wall Thickness(mm): 3/4"x1/2"mm 1"x1"x1/2"mm 1"x1"x3/4"mm 1-1/4"x3/4"mm 1-1/4"x1"mm</p>
<p><b>Bush(M06)</b></p> 	<p>Size x Wall Thickness(mm): 3/4"x1/2"mm 1"x1/2"mm 1"x3/4"mm 1-1/4"x3/4"mm 1-1/4"x1"mm</p>	<p><b>End Cap(M11)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>	<p><b>Union(M09)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>

## CPVC Hot & Cold Water Supply Series

<p><b>Male Adapter(M05)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>	<p><b>Female Adapter(M08)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>	<p><b>Cross(M18)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>
<p><b>Tank Coupling(M19)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>	<p><b>Male Adapter(Copper Thread)(M12)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 3/4"x1/2"mm</p>	<p><b>Female Adapter(Copper Thread)(M14)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 3/4"x1/2"mm 1"x1/2"mm</p>
<p><b>Female Elbow(Copper Thread)(M13)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"x1/2"mm 3/4"x1/2"mm 3/4"x3/4"mm 1"x1/2"mm</p>	<p><b>Female Tee(Copper Thread)(M15)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"x1/2"mm 3/4"x1/2"mm 1"x1"x1/2"mm</p>	<p><b>Female Coupling(Copper Thread)(C27)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>
<p><b>Male Coupling(Copper Thread)(C26)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>	<p><b>Compact Ball Valve(CV03)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"mm 3/4"mm 1"mm 1-1/4"mm 1-1/2"mm 2"mm</p>	<p><b>Single Union Valve(CV04)</b></p> 	<p>Size x Wall Thickness(mm): 3/4"mm 1"mm 1-1/4"mm 2"mm</p>
<p><b>Elbow With Plate(C08)</b></p> 	<p>Size x Wall Thickness(mm): 1/2"x1/2"mm</p>	<p><b>CPVC Pipes(D2846 SDR11)</b></p> 	<p>Size: 1/2"x1.73mm 3/4"x2.03mm 1"x2.6mm 1-1/4"x3.3mm 1-1/2"x3.81mm 2"x4.85mm</p> <p>Weight(G/3M) 360 630 1029 1560 2160 3465</p>	<p><b>CPVC Pipes(D2846 SDR13.5)</b></p> 	<p>Size: 1/2"x1.51mm 3/4"x1.73mm 1"x2.03mm 1-1/4"x2.59mm 1-1/2"x3.06mm 2"x4.0mm</p> <p>Weight(G/3M) 294 510 804 1230 1722 2775</p>