## CHLORINATED POLYVINYL CHLORIDE



# THE EASY-TO-USE HOT & COLD PIPE



CPVC (Chlorinated Polyvinyl Chloride) is a thermo plastic developed to meet the need for easy-to-use corrosion-resistant pressure piping at higher temperatures.

Since its introduction in 1960, CPVC hot and cold water pipe has enjoyed growing acceptance in the plumbing and home building field. This severe service demonstrated CPVC's resistance to high temperature and corrosion, qualities which have made it a natural for domestic hot and cold water supply systems.

By 1966, an estimated 10 million feet of CPVC were in use in hot and cold water systems throughout the United States. Today, there are millions of successful CPVC installations across the country in every form of residential construction.

#### **BENEFITS OF CPVC PIPE:**

#### 1. Resists Corrosion.

CPVC is totally immune to galvanic or electrolytic attack. It resists the chemical action of most acids and alkalis. It will never rust, rot, or corrode under normal use.

#### 2. Operating Strength.

CPVC will easily withstand water temperatures up to 180 degrees F at working pressures of 100 psi. In addition, tests at 210 degrees F and 105 psi indicate an ample safety factor in the event of water heater malfunction.

#### 3. Self-Insulating.

CPVC's thermal conductivity is a tiny fraction of that of copper tube, thus heat remains inside the pipe and hot water is delivered more quickly.

### 4. Easy Installation.

You need no torches or other special tools to install CPVC. A plastic tubing cutter (or miter saw), a knife, and a supply of clean rags are all you need.

#### 5. Lower Installed Cost.

The installed cost of CPVC is much lower than any other water supply pipe material. In addition, CPVC has consistently shown better price stability and availability.

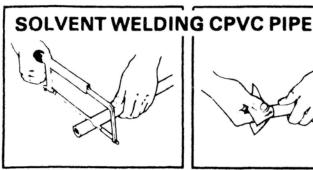
#### 6. Lightweight.

CPVC is one-third the weight of copper which makes for easy on-the-job handling and exceptional ease of assembly.

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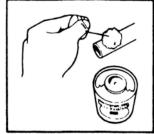
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**CPVC** 





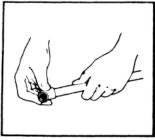
- 1. Cut to length squarely and allow for makeup dimension (depth of fitting socket). Use a finetooth saw or a PVC pipe cutter.
- 2. Remove all burrs on pipe using sandpaper or a knife.



3. With a clean rag or applicator, apply CPVC cleaner on pipe and socket piece.



Follow immediately with a CPVC solvent application. Apply solvent liberally on pipe and sparingly on socket.



Quickly push pipe into socket with a slight twisting motion until it bottoms. Adjust alignment of fittings immediately before solvent sets up.

# **USING CPVC PIPE**

#### **Size Recommendations**

CPVC may be used for any water supply purpose inside the house. For the average house, where water pressures are 50 psi or higher, 3/4-inch CPVC pipe is normally adequate for main supply lines and 1/2-inch pipe for branches and risers to fixtures. Sizing must, however, conform to prevailing plumbing codes.

#### **Expansion and Contraction**

A 10-foot length of CPVC pipe will expand 1/2-inch in length when the internal temperature is increased from 73 degrees F to 180 degrees F and allowance for this linear movement must be made when installing long runs. Typically, long runs will have offsets incorporated in them to alleviate expansion problems.

#### Support

To prevent pipe from sagging it should be supported every 32 to 36 inches. Strap hangers should be at least 3/4-inch wide. Special nylon straps which allow for expansion slippage are available.

#### **General Information**

CPVC pipe is available in 1/2", 3/4", 1" and 1-1/4" diameters in 10-foot lengths. You can cut it with an ordinary hand saw and join it by easy solvent welding. CPVC is code-accepted in many areas but it is advised you first check with your local governing code bodies before actual use. CPVC conforms to the American Society for Testing and Materials (ASTM) and is accepted by the Federal Housing Administration (FHA)

These "How-To-Do-It" sheets have been reviewed in June 2007 by a professional Engineer. If you find a problem, please notify G & G Electric & Plumbing at 1900 NE 78th Street, Ste. 101, Vancouver, Washington 98665