

Connected in quality.

# PEX VS. CPVC

## SIDE-BY-SIDE COMPARISON

**REDUCE INSTALL TIME**  
WITH VIEGA® PRESS TECHNOLOGY

### Residential Applications



**Save 78%** on total fitting install time with Viega PureFlow Press fittings vs CPVC\*.

\*Based on ambient temperature between 60° and 100°F.

### Commercial Applications



**Save 84%** on total fitting install time with Viega PureFlow Press fittings vs CPVC\*.

\*Based on ambient temperature between 60° and 100°F.

### Crosslinked Polyethylene vs Chlorinated Polyvinyl Chloride

Crosslinked polyethylene (PEX) and chlorinated polyvinyl chloride (CPVC) are popular plastics used in plumbing systems today. Viega PureFlow® PEX is manufactured using the silane method, which achieves crosslinking during a post extrusion process with heat and moisture. CPVC is a thermoplastic produced by chlorination of polyvinyl chloride (PVC) resin, which allows it to withstand higher temperatures and pressures than standard PVC.

CPVC systems are installed by applying a solvent cement or glue to CPVC tubing and assembling the fittings. This system has several vulnerabilities when it comes to producing a safe, fast and reliable system.



	PEX	CPVC
Connection Method	Connect fittings to pipe quickly and safely with a specialized press tool. No additional adhesives or solvents needed.	Requires a solvent cement or glue and adhesive and primer that needs a well-ventilated area and proper PPE to limit exposure.
Flexibility	Viega's PureFlow PEX is a flexible tubing manufactured using the silane method. This flexibility means fewer fittings are required when installing around corners and fewer chances for leaks.	CPVC is rigid. This inflexibility requires more fittings to complete work around corners, increasing the potential for leaks. It's plastic composition also means more susceptibility to micro-fractures.
Pressure Testing	Viega's PureFlow PEX connections are ready for a pressure test as soon as the connection is made. Additionally, all Viega polymer press fittings come with Smart Connect® technology which identifies unpressed connections 100% of the time.	Pressure tests with air are warned against by CPVC manufacturers. It can be difficult to tell when a connection is successfully made or left incomplete because of this.
Prep Work	In many instances, preparing tubing for a press fitting requires no necessary prep work. Simply square off tubing to proper length, insert fitting, and press.	Many CPVC manufacturers recommend chamfering the end of the pipe and then taking time to check the insertion depth of the fitting. Some codes do not allow for one-step solvent application which means an additional primer must be applied before assembling the joint.
Consistency	Viega fittings use a power driven or specialized hand tool that completes every fitting the exact same way, eliminating variables that can cause inconsistent connections.	Similar to soldering copper joints, no two connections are made exactly the same when applying solvents. Variables such as too much or too little solvent can create a slew of connection issues, leaving the system vulnerable to leaks, bursts, and even complete failure.
Cost	Viega PureFlow PEX tubing may be bent to a minimum of 5 x O.D. with approved bend support, requiring far fewer fittings than other piping methods. A specialized press tool creates a connection in seconds without the use of solvents or adhesives. This leads to a reduction in material and labor costs.	CPVC's rigidity means more fittings are needed. Connecting CPVC also requires a solvent adhesive that must be stored precisely to avoid rendering it ineffective. Additionally, CPVC cannot be pressure tested immediately. All of this leads to higher labor and material costs.

Minimum time in minutes to 100psi pressure test for a 1" pipe		
Temperature (F)	Viega PureFlow Press	CPVC solvent
0°	Immediately	30
32°	Immediately	20
40°	Immediately	15
60°	Immediately	15

# PUREFLOW®

## PEX SYSTEMS

The Viega PureFlow system features press and crimp fittings, including PEX to copper transition press fittings. Connection requires zero tubing alteration. PureFlow PEX features the highest possible chlorine and UV resistance and can be used with Viega ManaBloc systems, giving each fixture in a home or building its own PEX line.



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**V** Viega LLC  
 585 Interlocken Blvd.  
 Broomfield, CO 80021  
 USA  
 Phone (800) 976-9819  
[viega.us](http://viega.us)



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