

# PEX approved in California plumbing code

On Jan. 22, 2009, the California Building Standards Commission (CBSC) certified the Environmental Impact Report (EIR) on crosslinked polyethylene (PEX) tubing and unanimously adopted regulations approving PEX water distribution systems into the California Plumbing Code, which took effect Aug. 1, 2009.

Now contractors and consumers finally have access to an environmentally superior product which provides a durable solution that stands up to the state's water conditions, while meeting California's high standards for drinking-water quality.

The new regulations took effect Aug. 1, 2009. Prior to that, local jurisdictions had the ability to amend the code to use PEX in new and remodel home construction before statewide adoption.

Conducted from October 2007 through December 2008, the EIR evaluated PEX tubing on its impact on air quality, water quality and performance, as well as PEX tubing installation, use and disposability and manufacturing processes in the areas of waste, recycling, energy consumption and natural resources.

The EIR concluded the adoption of PEX tubing into the California Plumbing Code with proposed regulations would be "an environmentally superior action with respect to public health and hazards, water quality and air quality."

In fact, 180 of the more than 530 municipalities and counties within the state had already approved the use of PEX prior to the approval in the plumbing code. This means millions of feet of PEX has been in service throughout California for well over a decade.



## Codes and standards

### Hydrostatic temperature and pressure ratings

- 200°F (93.3°C) at 80 psi
- 180°F (82.2°C) at 100 psi
- 73.4°F (23°C) at 160 psi
- 120°F (48.9°C) at 130 psi (1/2", 3/4" and 1" AquaPEX® only)

### Manufacturing standards

- ASTM F876
- ASTM F877
- ASTM F2023
- ASTM E84/ULC S102.2
- ASTM E119/UL 263/ULC S101
- ASTM E814/ULC S115
- CSA B137.5
- CSA B214
- UL 1821/ULC ORD C199P
- NSF/ANSI-14
- NSF/ANSI-61

### Product listings

- cNSFus-fs (up to 2")
- cNSFus-pw
- cQALus
- UL
- WH
- PPI TR-4
- IAPMO
- CCMC
- CSA
- ETL
- ICC-ES
- BMEC

### Applicable Codes

- ICC
- IRC
- UPC
- NSPC
- UFGS
- NPC of Canada
- NBC of Canada
- IPC
- IMC
- UMC
- HUD

### Warnock Hersey plenum rating

- 25 flame spread/50 smoke developed (plenum rated) to ASTM E84
- CAN/ULC S102.2

### Fire-rated assemblies

#### United States

- G573—Two-hour Hambro floor/ceiling assembly
- K913—Two-hour concrete floor/ceiling assembly
- L557—One-hour wood frame floor/ceiling assembly
- U372—One-hour wood frame wall assembly
- V444—One-hour steel stud wall assembly

#### Canada

- G573—Two-hour Hambro floor/ceiling assembly
- UW/WA 60-01—One-hour steel stud wall assembly
- UW/WA 60-02—One-hour wood frame wall assembly
- WC/FCA 60-01—One-hour wood frame floor/ceiling assembly
- WC/FCA 120-01—Two-hour concrete floor/ceiling assembly
- WC/FCA 120-02—Two-hour concrete floor/ceiling assembly

# California PEX plumbing FAQs

## What does the EIR say about PEX?

The EIR states that the adoption of PEX tubing into the California Plumbing Code with proposed regulations is “an environmentally superior action with respect to public health and hazards, water quality and air quality.” The EIR was a full study conducted from October 2007 through December 2008 on PEX tubing and its impact on air quality, water quality, performance, waste, recycling, energy consumption and natural resources in regard to manufacturing processes, installation, use and disposability.

## How long did it take to get PEX tubing approved for use in California?

Uponor actively pursued the adoption of PEX in the California Plumbing Code since 2000. Three years of litigation resulted in a decision by the California Building Standards Commission to conduct the full Environmental Impact Report (EIR) on PEX tubing.

## Has PEX tubing ever been used in California?

Prior to PEX being added to the California Plumbing Code, 180 of the more than 530 municipalities and counties within the state approved the use of PEX tubing as an alternate material to copper and other materials used for plumbing. In fact, millions of feet of Uponor PEX tubing is in use in residential and commercial applications throughout California, and more than 17 billion feet is installed worldwide.

## Does including PEX tubing in the California Plumbing Code mean it can automatically be used everywhere in the state?

Local jurisdictions had the opportunity to amend PEX out during the 180-day period before it went into law on Aug. 1, 2009. Check with local codes and the authority having jurisdiction to confirm if PEX is approved in your area.

## Who regulates the use of PEX tubing in California?

The following agencies adopted regulations for the use of PEX tubing in the types of construction under their jurisdictions:

- Housing and Community Development (HCD)—Residential construction, hotels, motels, etc.
- Division of State Architect – Structural Safety (DSA-SS)—State-owned buildings, universities, etc.
- Building Standards Commission (BSC)—Commercial construction not state-owned (retail)
- Office of Statewide Health Planning and Development (OSHPD)—Hospitals, health care facilities, etc.

## Why would builders and plumbers use PEX tubing instead of other water distribution piping materials, such as copper or CPVC?

In regards to plastic plumbing products, both PEX and CPVC are listed to their own respective ASTM standards for use in plumbing systems. However, CPVC lags PEX not only in market share (PEX has approximately 50%; CPVC has about 18%), but also in regards to features and installation characteristics.

- Both copper and CPVC are rigid piping products, requiring a connection with every direction change. Connections are usually created by bonding the pipe and fittings together with either solvents (CPVC) or torches and flux (copper).
- Uponor PEX features the ProPEX® fitting system that requires one simple tool for fast, easy connections without the use of solvents, glues, torches or gauges. Additionally, the ProPEX system cannot be dry fit, so there’s never a question whether the fitting is properly made.

For further information about the ProPEX system, go to [uponor-usa.com](http://uponor-usa.com).

## Does PEX tubing meet California’s lead-free legislation?

Uponor offers a complete line of lead-free (LF) brass transition fittings and valves that meet California lead-free legislation and exceed the requirements of the United States Safe Drinking Water Act. Combining these fittings with our PEX tubing, our extensive engineered polymer (EP) offering and our innovative ProPEX Out-of-the-Wall Support System provides a complete lead-free plumbing system from the inlet to the faucet.

## Who should I contact at Uponor for more information?

For more information, contact Uponor Technical Services at 888.994.7726 or [technical.services@uponor.com](mailto:technical.services@uponor.com).



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