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[Educational Resources](#)

[PEX VS. Copper VS. CPVC](#)

## PEX VS. COPPER VS. CPVC



### 13 Reasons Why PEXa Is Superior to Copper and CPVC for Commercial Plumbing Projects

Plumbers discovered a long time ago that today's crosslinked polyethylene PEXa is much easier to handle and install than rigid piping systems and is just as durable – if not more so – than both copper and CPVC. They also know that to succeed in today's competitive market, they need every advantage possible to both win bids AND stay profitable. If anything, these same pressures weigh even more heavily on commercial plumbers and contractors.

So here we go, courtesy of residential plumbers throughout North America: 13 reasons why you should use RAUPEX UV shield PEXa pipe with 12-month UV shield protection from REHAU rather than copper or CPVC.

#### RAUPEX PEXa Versus BOTH Copper and CPVC

##### 1. Easier, Faster Installation Saves Time and Money

Flexible RAUPEX<sup>®</sup> PEXa pipe requires fewer elbows, thus eliminating many of the extra fittings required for rigid copper or CPVC installations. When you factor in the ease of routing PEXa pipe around obstructions, longer overall runs and a broad

array of multi-port fittings and REHAU EVERLOC+™ compression-sleeve fitting system, installers can slash installation time by up to 66%.

## 2. Highly Resistant to Freeze Breaks

When water freezes in copper or CPVC pipe, there is no give and expensive leaks may follow. The flexibility of RAUPEX allows the pipe to expand and return to its original diameter, while not becoming brittle in extreme temperatures.

## 3. Workers and the Environment Are Better Protected

PEXa requires no glues or chemicals during installation like CPVC, protecting installers from harmful fumes. And there is no risk of serious burns to plumbers – or fire to surrounding structures – from the sweating and soldering required with most copper installations.

## 4. Shipping, Storage Streamlined with RAUPEX UV Shield

Shipping and managing heavy lengths of copper is always a logistical challenge, as is protecting CPVC from damage during transportation or handling. Available in straight lengths or in coils up to 1,000 feet, RAUPEX is much lighter and easier to store. And with RAUPEX UV shield's superior protection of up to 12 months (the highest UV resistance in the industry compared to others at only one to six months), there is extended protection from sunlight during installation.

## RAUPEX PEXa Versus Copper

### 1. PEXa Costs Less, Stable Pricing

On average, copper piping costs two-to-three times more per foot than PEXa. Because it is a based metal and traded on the world market, the price of copper also fluctuates widely from month-to-month, even week-to-week, making it a wildcard from quote to installation on any job. The proliferation of metal-salvage companies also makes copper an enticing target for job site theft.

### 2. 0% Mineral Buildup, Protecting Safety of Drinking Water

Aggressive water conditions create water quality issues for copper piping and can compromise structural integrity and flow performance over time. REHAU PEXa resists corrosion, erosion, pitting and scale buildup, which means no reduced flow or pinhole leaks. RAUPEX has been rigorously tested and approved for drinking water safety in accordance with all major building codes.

### 3. Noise-free, Energy-efficient Operation

RAUPEX's smooth walls plus our EVERLOC+ fittings provide excellent flow characteristics, reduce pressure loss and absorb pressure surges, thus virtually eliminating the water-hammer clunking, singing and whistling so often associated with copper and CPVC pipes. And if you have ever touched a copper hot-water run, you know it's hot! PEXa's lower thermal conductivity delivers hot water from source to fixture with minimal heat loss/condensation, minimal wait time and maximum energy savings.

### 4. Color Coded for Mistake-free Installation

RAUPEX is available in blue for cold water and red for hot, making it easier to keep plumbing runs straight and prevent costly misconnections during installation. It is also easier for building owners to accurately identify piping for future alterations. Meanwhile, all copper pipe is, well, copper colored and CPVC is white!

### 5. Sustainable for Reduced Environmental Impact

RAUPEX PEXa requires less energy to produce and leaves a smaller overall carbon footprint than copper. This was the finding of a widely-respected study by the Flemish Institute of Technological Research. The assessment was based on all the processes associated with product life cycle, from manufacturing of raw materials to transforming them into products to transportation to installation to disposal.

## RAUPEX Versus CPVC:

### 1. Instantly Pressure-test Ready

CPVC plumbing connections require a solvent cement to bond pipe to fitting. Until the glue dries and the joint can be pressure tested, it is guesswork installation. RAUPEX PEXa pipe and EVERLOC+ compression-sleeve fittings take the guesswork out of plumbing connections and are instantly ready for pressure testing.

## 2. Freeze-break Resistant

Drop or step on CPVC on any jobsite and it can crack or break. RAUPEX PEXa stores in coils and straight length and resists any damage during the inevitable handling during installation. The brittleness of CPVC creates additional problems when temperatures drop below freezing. Instead of expanding and then returning to its original shape, CPVC carrying water invariably bursts and cracks during a freeze.

## 3. Faster, Flexible Installation Overcomes Price Savings

We'll concede that CPVC piping often costs less than PEXa. But those savings are more than offset by the added connections and installation time required to run rigid CPVC piping. Flexible PEXa can be bent to sidestep obstructions, minimizing the number of fittings and couplings required.

## 4. Cheaper to Ship, Easier to Handle, Convenient to Store

RAUPEX PEXa is available in coils versus various lengths of rigid plastic CPVC piping that must be cut to practical lengths for shipping. This makes PEXa not only cheaper to ship but also easier to handle once it reaches the jobsite and more convenient to store than CPVC. PEXa pipe from REHAU is available in color red for hot, blue for cold, which lessens the chance for installer error.

Forget the Negative Stereotypes: PEXa Is the Wave of the Future

**Stereotypes die hard, and we have certainly heard them all when talking to engineers and contractors about PEX. Most are perceptions based on inferior product introduced into North American market during the 1980s.**

Yet, REHAU RAUPEX PEXa pipe has been the trusted choice for plumbers and contractors – first in Europe and later around the globe – for 50 years. Manufactured in-house to exacting formulas from the high quality raw materials, REHAU PEXa durability is backed by a 25-year limited warranty. Plus, the REHAU PEXa plumbing system is supported by REHAU EDGE<sup>SM</sup>, our contractor development program, and REHAU Academy, our specialized training program.

So really, how can you go wrong? PEXa over copper and CPVC; check! REHAU's RAUPEX PEXa pipe and the game-changing EVERLOC+ compression-sleeve fitting system over other PEX competitors: check! Time to move into the next century of reliable, safe and cost-efficient potable water applications with the REHAU PEXa Plumbing system.

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