



# PLASTICS·PIPE·INSTITUTE®

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## BUILDING COMMUNITY



## HOMEOWNERS FRUSTRATED BY PINHOLE LEAKS IN COPPER PLUMBING FIND RELIEF WITH PEX PIPING SYSTEM

TELLICO VILLAGE, Tenn - Bob and Patti Jones of Tellico Village, an upscale community located just 31 miles southwest of Knoxville, were at their wit's end. Over a one-year period, they had called plumbers out three times to repair the pinhole leaks that had formed in the copper piping throughout several areas in their home.

"We were constantly having the drywall repaired every time a leak occurred," said Patti Jones. "As a result, we were desperate to find a permanent fix to this problem because we knew the repairs would continue otherwise."

It turns out many residents of Tellico Village were experiencing recurring problems with pinhole-size leaks in their copper tubing as well. Marty Myers, president of A-1 Plumbing Co., Inc., of Loudon, Tenn., had heard of more than 500 incidents of pinhole leaks over a four-year period.

The problem became so bad that in 2002, a group of retired professionals formed a six-member committee to investigate the source of the problem and to suggest viable alternatives. They issued a statement strongly commending the use of either crosslinked polyethylene (PEX) or chlorinated polyvinyl chloride (CPVC) instead of copper for future potable plumbing material.

In fact, Tellico Village was not the only community facing this issue. Pinhole leaks in

residential plumbing has become a serious problem in towns and suburbs throughout the United States, from California to New York.

"I cannot speak for the rest of the country, but after three years of research, no one in Tellico Village knows for certain what's causing these pinhole leaks," said Myers. "We suspect that it has something to do with a combination of chlorine and high alkalinity. Whatever the cause, it's been a major problem for these homeowners."

In the case of the Jones family, Myers was called in to investigate a permanent piping solution. After a thorough examination of all the alternatives, including CPVC, Myers chose Uponor's Wirsbo AQUAPEX® tubing.

"We were amazed at how quickly it was installed," said Patti Jones. "Also, we liked the fact that the PEX product was less invasive to our house than copper. Because the material is flexible, Marty was able to route the tubing through small holes he cut throughout the house. Copper would have been much more difficult to route, in addition to being messier."



Bob and Patti Jones led the way for a better water system in Tellico Village



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About 90% of the home was re-piped with PEX. The few areas that could not easily be reached — without requiring serious damage to the drywall — were left alone, despite the fact that pinhole leaks could occur at some point in the future in those areas as well.



Copper pipes with pinholes leaks were replaced with a long-life PEX system

By the time Myers arrived, the water from the pinhole leaks had caused major damage to one section of their ceiling.

“We were very lucky none of our furniture was damaged this time around,” said Robert Brackenridge, “yet we feared we wouldn’t be so lucky the next time. And we were convinced there would be a next time. We were looking for a permanent fix, that’s why we ended up going with PEX tubing.”

#### **About PPI**

The Plastics Pipe Institute, Inc. (PPI) is a Texas-based, non-profit organization, founded in 1950, that is the major trade association representing all segments of the plastic piping industry. PPI is dedicated to expanding awareness about plastic pipe systems and promoting plastics as the material of choice for pipe applications. It is the premier technical, engineering and industry knowledge resource that publishes data for use in development and design of plastic pipe systems. Additionally, PPI collaborates with industry organizations that set standards for manufacturing practices and installation methods. For more information about PPI and available information, go to: [www.plasticpipe.org](http://www.plasticpipe.org).

Neighbors Robert and Susan Brackenridge, on the other hand, did not want to take any chances. They decided to have Myers’ team re-pipe their entire 3,500-square-foot home.