

Polybutylene

Polybutylene is a form of plastic resin that was used extensively in the manufacture of water supply piping from 1978 until 1995. Due to the low cost of the material and ease of installation, polybutylene piping systems were viewed as "the pipe of the future" and were used as a substitute for traditional copper piping. It is most commonly found in the "Sun Belt" where residential construction was heavy through the 1980's and into the mid 90's. However, it has also been found to be very common in the Mid-Atlantic States as well as the Pacific North Western States.

The piping systems were used for underground water mains and as interior water distribution piping. Industry experts believe it was installed in at least 6 million homes, and some experts indicate it may have been used in as many as 10 million homes. In all likelihood, the piping was installed in about one in every five homes built during the years in which the pipe was manufactured.

Exterior underground Polybutylene water mains are usually blue, but may be gray or black (do not confuse black poly with polyethylene pipe). It is usually 1" in diameter, and may be found entering your home through the basement wall or floor, concrete slab or through your crawlspace terminating at the main shutoff valve or the interior water meter itself. It's wise to check both ends of the pipe because there have been cases where copper pipe enters the home, and poly pipe is at the main shutoff in the street. Obviously, both pipes were used and connected somewhere underground.

Polybutylene used inside your home can be found near the water heater, running across the ceiling in unfinished basements, and coming out of the walls to feed sinks and toilets. A word of caution: in some regions of the country plumbers used copper "stub outs" where the pipe exits the wall to feed a fixture. Consequently, seeing copper in this example does not mean you do not have poly.

While scientific evidence is scarce, it is believed that oxidants in the public water supplies, such as chlorine, react with the polybutylene piping and fittings causing them to scale, flake and become brittle. Micro-fractures result and the basic structural integrity of the system is reduced. Thus, the system becomes weak and may fail without warning causing damage to the building structure and personal property. It is believed that other factors may also contribute to the failure of polybutylene systems, such as improper installation, but it is virtually impossible to detect installation problems throughout an entire system.

Throughout the 1980's and 1990's lawsuits were filed complaining of allegedly defective manufacturing practices and defective installation practices causing hundreds of millions of dollars in damages. Although the manufacturers have never admitted poly is defective, they have agreed to fund the Class Action Settlement.