



TC Home Inspections
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Polybutylene

Polybutylene (PB) is a plastic manufactured between 1978 and 1994 for use as piping in home plumbing systems. It offered plenty of advantages over other materials such as flexibility, ease of installation, resistance to freezing, and it was inexpensive. Pipes made from polybutylene were installed in 6 to 10 million homes in the United States during that period. Despite its strengths, production was ceased in 1994 after scores of allegations surfaced claiming that polybutylene pipes were rupturing and causing property damage. In the homes that still contain this material, homeowners must either pay to have the pipes replaced or risk a potentially expensive plumbing failure.

How Does Polybutylene Fail?

Although it has never been scientifically proven, many believe that oxides from chlorine in public water react with the polybutylene and cause it to flake apart. Small fractures deepen over time and eventually work their way to the pipe exterior, allowing the water to escape. PB manufacturers such as Shell Oil and Dupont De Nemours maintain that the leakages reported are a result of improper installation, rather than the presence of any defects in the material itself. Manufacturers cite the fact that the majority of leaks occur at joints and unions, which is where a leak would likely appear if a pipe were improperly installed. Regardless of the cause, class action lawsuits filed against PB manufacturers have been successful and resulted in immense payouts to homeowners. The largest such claim was a \$1 billion settlement paid by Shell Oil to select homeowners.

Polybutylene Pipes Should Be Replaced

Although no regulations require the replacement of polybutylene pipes with those made from other materials, many plumbers recommend this action, which can cost several thousand dollars. Leakage happens without warning and results in flooding and serious damage to a home's interior if it is not immediately stopped. PB pipes behind sheetrock can leak unnoticed for long periods of time and cause mold and water damage. It is far cheaper to replace polybutylene pipes before they fail and release their contents onto floors, appliances and furniture.

Insurance underwriters will not write a policy on a home that contains polybutylene plumbing.

Identifying Polybutylene

Polybutylene is usually grey in color and stamped in black or blue with PB2110.