

Polybutene-1 (PB-1)

 [buteline.com/nz/buteline/technical-information/polybutene-1-pb-1](https://www.buteline.com/nz/buteline/technical-information/polybutene-1-pb-1)

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Polybutene-1 was developed over 30 years ago specifically for use as a hot and cold water plumbing pipe material. PB-1 resins are flexible, linear polyolefins produced from 1-butene as homopolymers and as copolymers with ethylene. Polybutene-1 is a proven solution for the conveyance of clean healthy drinking water.

The most important commercial application for Polybutene-1 (PB-1) is therefore in plumbing pipe for residential and commercial use. With superior temperature and thermal capabilities compared to other materials, it endures and continues to perform both in low and high temperature applications. The flexibility of Polybutene-1 pipe assists installers and eliminates water hammer noise. Polybutene-1 is also environmentally friendly as it is 100% recyclable.

Buteline produces lengths and coils of Polybutene-1 pipe in a variety of sizes, ranging from 15mm to 28mm for the NZ market.

Key Advantages of Polybutene-1

As a material, Polybutene-1 (PB-1) is technically preferred for the manufacture of piping for reticulating hot and cold potable water systems, as it has many advantages over traditional and competitive materials.

The important advantages of PB-1 are:

- Excellent resistance to creep
- Extremely high strength (high yield strength, high impact strength, high tear strength, high puncture resistance)
- Exceptional resistance to environmental stress cracking
- No corrosion or scale build-up
- Low noise transmission
- Pigmented against algae formation
- Low thermal conductivity
- Withstands many freeze/thaw cycles



- Larger pipe internal diameter resulting in better pipe hydraulics
- Low pipe weight and very flexible (low flexural modulus)

Buteline Polybutene-1 Plumbing System

The Buteline PB-1 Plumbing System is the best modern plumbing system available to plumbers today.

The Buteline PB-1 Plumbing System offers a complete and well-engineered solution to the needs of the modern plumber. It is backed by a team of experienced development engineers and manufactured under an ISO accredited Quality system.

Buteline sources all required Polybutene-1 (PB-1) granules of optimal quality from Basell. Basell is acknowledged as the world's leading Polybutene-1 (PB-1) polymer manufacturer.

