

PVC PIPE ASSOCIATION TECHNICAL BRIEF

REASONS WHY WATER UTILITIES CHOOSE PVC PIPE

For more than 70 years, PVC has steadily taken market share from ductile iron and other pressure pipe materials. The reasons most often mentioned by utilities are briefly summarized below.

LOWER INITIAL COST AND EASE OF INSTALLATION

PVC pipe is competitively priced:

- There are at least 100 PVC pipe pressure-pipe manufacturing facilities across North America, ensuring a very competitive market environment compared to some other pipe materials, with multiple distributors providing pricing on most projects.

PVC is easy to install:

- PVC is lightweight, easy to cut, and easy to tap.
- Push-on gasketed joints provide quick assembly.
- Installation can be successfully accomplished in a wide range of site conditions.

EASE OF USE AND COMPATIBILITY WITH EXISTING PIPE INVENTORIES

PVC pipe is compatible with existing pipe inventories:

- PVC provides the same outside-diameter sizing as ductile iron.
- The same push-on and mechanical-joint (MJ) fittings used for iron are suitable for PVC.
- Thrust-restraint devices are available for pipe-to-pipe joints and for pipe-to-appurtenance joints.

Service connections are easily done:

- PVC is easy to tap – saddle taps, sleeve taps, and direct taps, as well as tapped couplings.
- Connections can be made up to size-on-size.

Trenchless options are available:

- Sliplining
- Horizontal directional drilling (HDD)
- Pipe bursting
- A variety of joining methods are available: butt-fused joints, spline-lock joints, pin-and-groove joints, internally restrained joints

A HIGH PERFORMANCE LONG-TERM INVESTMENT

Longevity

- Design life for PVC pipe is 100+ years.
- Pressure-pipe experience in North America is 70+ years (comparable to ductile iron).

PVC is immune to corrosion:

- PVC is commonly installed in all types of soil conditions and regions of North America.
- No coatings, linings, or costly corrosion management systems are needed.

PVC is able to accommodate movement:

- PVC pipe's deep-socketed bell and spigot joints allow movement instead of breakage.
- PVC is a flexible pipe that permits bending to occur as the ground shifts.
- Ground movement may be from frost heave, expansive soils, and seismic events.

PVC PIPE PROVIDES VALUE FROM START TO FINISH

More than one million miles of PVC pressure pipe are currently in service in North America. The reason: from initial pipe cost through installation, operation, maintenance, and longevity, PVC pipe provides unmatched value.