THE PIPELINE

IRONCLAD FACTS FROM DIPRA

Polyethylene Encasement and Corrosion Control

The PVC industry is entitled to its own opinions, but not its own facts. Case in point: false claims that ductile iron pipe cannot be protected from the effects of corrosion. For decades, utilities have addressed the possibility of corrosion of ductile iron pipe by installing polyethylene encasement, an innovative method of wrapping pipe with tubes or sheets of polyethylene immediately before installation. This proven system is effective, economical, and easy to install.

Key facts about polyethylene encasement:

- Acts as an unbonded film, which prevents direct contact between the pipe and corrosive soils.
- Provides a uniform environment that eliminates corrosion cells and has a dielectric property to help control stray currents.
- It works. It has been used for decades on hundreds of millions of feet of iron pipe with outstanding results. Hundreds of inspections of polyethylene-encased cast and ductile iron pipe, including installations from 40 to 50 years in service show that properly installed, polyethylene encasement provides effective, economical corrosion control.
- Installation is extremely economical. The cost of both material and installation is only pennies per foot in most sizes.
- Unlike bonded coatings, polyethylene encasement protects the pipe without the formation of accelerated corrosion concentration cells at coating “holidays” or gaps.
- The risk of pipe damage is reduced significantly since all installation occurs on site, and any repairs can be performed easily at the job site.
- It is a passive system. No monitoring or maintenance is necessary after installation.
- Polyethylene encasement was first used experimentally in severely corrosive conditions in 1951 in Birmingham, Alabama, the Everglades in Florida, and in a tidal marsh outside of Atlantic City, New Jersey. Successful results led to polyethylene use in water systems beginning in 1958 in Lafourche Parish, LA and 1959 in Philadelphia, PA.
- ANSI/AWWA adopted the first national standard for polyethylene encasement in 1972. An international standard was adopted in 1985.

For details about polyethylene encasement, ductile iron pipe, or the Ductile Iron Pipe Research Association visit

www.IronForAmerica.com