

DIPRA Facts & Figures

The Dangers of Using PVC Pipe

Serious, deeply troubling and proven health concerns are associated with polyvinyl chloride (PVC). The concerns are so great that cities, towns and companies around the world are banning or restricting its use. PVC Production creates dangerous chemicals like dioxins and other toxins that have been shown to cause cancer and birth defects. In fact, “cancer clusters” have been discovered near factories that produce PVC.

While the PVC pipe industry touts its product as a superior alternative to Ductile Iron Pipe, the facts suggest otherwise:

- PVC pipe is weak. It cannot withstand stress, especially common differential stresses that result in localized weak points.
- The longevity of PVC pipe is dependent on stress and time—the greater the stress, the sooner it will fail.
- PVC pipe is sensitive to ambient temperatures (in low temperatures, PVC becomes increasingly brittle and can break more easily, while in warmer environments PVC becomes weaker).
- PVC pipe loses impact strength if exposed to ultraviolet rays - PVC can lose up to 34% of its impact strength after about one year of exposure to UV radiation.
- PVC has higher pumping and energy costs. It is more expensive to pump through PVC pipe than Ductile Iron Pipe because Ductile Iron Pipe has a larger inside diameter.
- PVC pipe is more difficult to install. It requires a much more substantial backfill, and it must be installed with tracing wire to ensure it can be located in the future.
- PVC pipe is susceptible to damage from real-world shipping and handling conditions. A scratch deeper than the thickness of a dime can compromise an entire length of PVC pipe.
- Tapping PVC pipe is difficult and time-consuming and can be dangerous - resulting in cracked pipes, injured workers, and severe water loss.
- Locating a leak in PVC pipe is extremely difficult. Most locating techniques involve transmitting sound waves down the pipeline, sound waves that do not travel well in plastic pipe.
- PVC pipe is susceptible to recurring interruptions in its supply chain, which has resulted in several “force majeure” notifications of loss of production capacity to its customers.



For details about the benefits of Ductile Iron Pipe or the Ductile Iron Pipe Research Association visit www.dipra.org



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