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DIPRA MINUTE

Ductile Iron Pipe Doesn't Mind The Weather



Strong, resilient Ductile iron pipelines withstand extreme conditions that blazing hot summers and harsh winters can create.

Ductile iron pipe is not affected by fluctuating operating or installation temperatures. In a typical range of operating temperatures from 32°F to 95°F, and an extreme range of installation temperatures from -10°F to 110°F, the tensile strength of Ductile iron pipe remains virtually unchanged.

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For comparison, PVC pipe has a standard tensile yield strength of 6,300 psi vs. Ductile iron's minimum yield strength of 42,000 psi. PVC's tensile strength is weakened as the temperatures exceed 73.4°F, resulting in a corresponding loss of pressure capacity. The higher the temperature, the more tensile strength is lost.

Extreme temperature swings also affect the impact strength PVC pipe. In colder temperatures (less than 73.4°F), the pipe becomes more brittle, reducing its impact strength. On the other hand, there is no detectable difference in Ductile iron pipe's impact strength, no matter the outside temperature.



Please visit <u>dipra.org</u> and check out all our <u>technical publications</u> relative to the application of Ductile iron pipe.

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Thank you, Patrick Hogan President, DIPRA

Strength and Durability for Life*

