



AMERICAN Zinc: A SMaRT Product for Smart Cities

The list is growing – from San Jose to Miami, from Boston to Birmingham, and cities in between. From north to south, east to west, across the country cities are recognizing the benefits of specifying and installing zinc-coated ductile iron pipe. Why zinc? The zinc-coating system is a proven, life extending product for iron pipe, adding years of life and service to an already reliable and resilient product. And, ductile iron pipe is the only pressure pipe to be SMaRT certified, a designation given to products that use recycled materials, provide energy savings and are environmentally safe. With zinc-coated ductile iron pipe, water utilities can be confident that their customers will have sustainable and dependable water service for generations to come. And, it's made in America by AMERICAN.

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1-800-442-2347

EOE/Vets/Disabilities



AMERICAN

DUCTILE IRON PIPE

THE RIGHT WAY

▶ DUCTILE IRON PIPE

▶ FLOW CONTROL

▶ INTERNATIONAL

▶ SPIRALWELD PIPE

▶ STEEL PIPE



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A Specification for **Zinc Coating** on Ductile Iron Pipe

A. Standards: Ductile iron pipe shall conform to AWWA C150 and C151, subject to the following supplemental requirements. The pipe shall be of the diameter and class shown, shall be furnished complete with rubber gaskets as indicated in the Contract Documents, and all specials and fittings shall be provided as required under the Contract Documents. The ductile iron pipe shall be manufactured or supplied by AMERICAN Ductile Iron Pipe (a division of AMERICAN Cast Iron Pipe Company, Birmingham, Alabama) or pre-approved equal. Joints shall conform to AWWA C111, cement linings to AWWA C104, fittings to AWWA C153 or C110.

B. Markings: Upon request, the CONTRACTOR shall require the MANUFACTURER to legibly mark specials in accordance with the laying schedule and marking diagram. All other cast marks and other marks shall be in accordance with applicable Standards.

C. Laying Lengths: Pipe laying lengths shall be provided in 20 foot nominal lengths with allowable trim pipe lengths in accordance with AWWA C151 and special shorter lengths provided as required by the Drawings.

D. Joint Design: Ductile iron pipe shall be furnished with push-on joints or push-on restrained joints. Restrained joints shall be AMERICAN Amarillo Fast-Grip, Flex-Ring, or Lok-Ring.

E. Lining: Except otherwise provided herein, interior surfaces of all ductile iron pipe, fittings, and specials shall be cleaned and lined at the pipe casting facility with a standard thickness cement-mortar lining applied in conformity with AWWA C104. A seal coat shall not be applied to the surface of the cement-mortar lining.

F. Coating: The exterior of ductile iron pipe shall be coated with a layer of arc-sprayed zinc per ISO 8179. The mass of the zinc applied shall be 200 g/m² of pipe surface area. A finishing layer topcoat shall be applied to the zinc. The mean dry film thickness of the finishing layer shall not be less than 3 mils with a local minimum not less than 2 mils. The zinc coating system shall conform to ISO 8179-1 "Ductile iron pipes – External zinc-based coating – Part 1: Metallic zinc with finishing layer. Second edition 2004-06-01."

G. Installation: Ductile iron pipe shall be loaded, transported, unloaded, installed, and tested in accordance with AWWA C600.



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Zinc Coated Ductile Iron Pipe

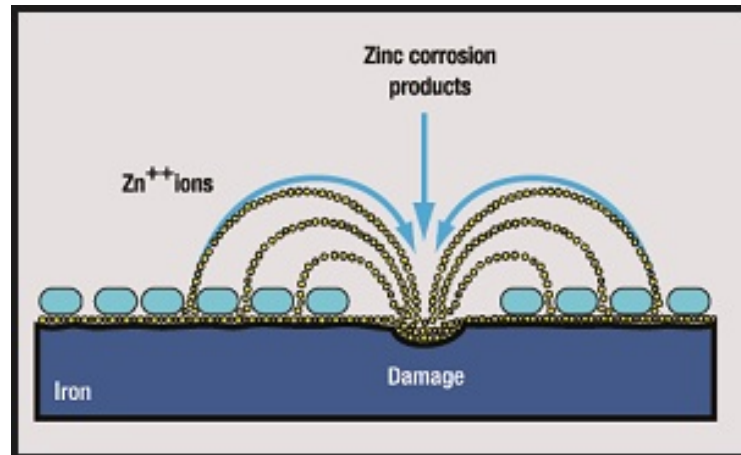


V-Bio Polyethylene
Encasement

Zinc Basecoat



Asphaltic Topcoat



Zinc is anodic to iron. That means iron is the more stable, more noble, of the two elements. Zinc will cathodically protect the iron pipe as long as zinc is present, and over time, will convert to zinc compounds that provide an enduring passivating layer under the topcoat, which significantly extends the life of the pipe. Zinc is an anode, uniformly adhered to the surface of the pipe.



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