



### **Epoxy Cast Iron Soil Pipe Suggested Specification**

- A. General: Piping shall meet one of the latest editions of the following standards
  - a. Cast Iron Pipe, Hubless: ASTM A888 or CISPI 301
  - b. Cast Iron Couplings, Hubless: ASTM C1277, ASTM C1540 or CISPI 310
  - c. Cast Iron Pipe, Hub and Spigot: ASTM A74
  - d. Cast Iron Pipe, Hub and Spigot Gaskets: ASTM C564
  - e. Coatings shall meet the testing requirements of the EN877 coatings standard listed below
  
- B. Cast Iron Soil Pipe Markings: All cast iron soil pipe shall be clearly marked with the manufacturer's name, country of origin, registered trademark of manufacturing site, eight-digit date code, pipe diameter and length, relevant ASTM standard and registered trademark of the third-party certifier. Third party certifier shall be accredited by ANSI.
  
- C. Material Test Reports: Upon request suppliers of cast iron soil pipe shall be able to supply material tests reports in accordance with the relevant ASTM standard and shall include testing and analysis on: radioactivity, dimensional characteristics, tensile strength and chemical/metallurgical content. Suppliers shall also supply MSDS sheets on all coatings.
  
- D. Cast Iron Soil Pipe Specification: Interior of cast iron soil pipe shall be bored for smoothness prior to the application of coatings. All coatings shall be sprayed on for consistent coverage.
  
- E. Hubless Cast Iron Soil Pipe and Fittings: All DWV and storm drainage shall have at minimum 5 mil thickness epoxy coating on the interior of the cast iron soil pipe. Interior of the pipe shall be bored for smoothness. Exterior of the no-hub pipe shall have a minimum of 2.5 mil thickness of resin coating. No-hub fittings shall have epoxy coating on the interior and exterior at minimum of 5 mil thickness.
  
- F. Hub-And-Spigot Cast Iron Soil Pipe and Fittings: All DWV and storm drainage shall have a minimum of 5 mil thickness epoxy coating on the interior of the cast iron soil pipe. Interior of the pipe shall be bored for smoothness. Exterior of the hub-and-spigot pipe shall have a minimum of 2.5 mil thickness of epoxy coating. Hub-and-spigot fittings shall have epoxy coating on the interior and exterior of minimum of 5 mil thickness.

G. Per EN877, the epoxy coated cast iron soil pipe shall:

- a. Be tested in sulfuric acid at 2 pH for 30 days at ambient temperature.
- b. Be tested in sodium hydroxide at 12 pH for 30 days at ambient temperature.
- c. Be tested in hot water at 203°F.
- d. Be tested for salt spray resistance for at least 350 hours.
- e. Be tested for resistance to waste water for at least 30 days at 73°F
- f. Be tested for temperature cycling by 1,500 cycles of eight gallons of 60°F water followed by eight gallons of 203°F water over 100 hours.
- g. Be tested to achieve coating thickness per ISO 2808, Method 6.
- h. Be tested to achieve Level 1 adhesion per ISO 2404.
- i. Epoxy coated cast iron soil pipe shall have a 10-year warranty.

H. All cast iron soil pipe shall be installed per the manufacturer's instructions.