

# **DELAWARE MATERIAL SPECIFICATION**

## **DUCTILE-IRON PIPE AND FITTINGS MS 209**

### 1. **SCOPE**

This specification covers the quality of ductile-iron pipe and fittings.

### 2. **PIPE**

Ductile-Iron Pipe shall conform to the requirements of ANSI A21.51 (AWWA C151) Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand-Lined Molds for Water or Other Liquids and ANSI A21.15 (AWWA C115) Flanged Ductile Iron and Grey-Iron Pipe with Threaded Flanges.

### 3. **FITTINGS**

Ductile-Iron Pipe Fittings shall conform to the requirements of ANSI A21.10 (AWWA C110), Grey-Iron and Ductile-Iron Fittings, 3-inch through 48-inch, for Water and Other Liquids. Also, ANSI A21.53 (AWWA C153) Ductile-Iron compact Fittings, 3-inch through 12-inch, for Water and other Liquids.

### 4. **JOINTS**

Rubber-gasket joints for Ductile-Iron Pipe and Fittings where either mechanical joints or push-on joints are used shall conform to the requirements of ANSI A21.11 (AWWA C111) Rubber-Gasket Joints for Ductile-Iron and Grey-Iron Pressure Pipe and Fittings.

### 5. **LINING**

Interior lining for Ductile-Iron Pipe and Fittings shall conform to the requirements of ANSI A21.4 (AWWA C104), Cement Mortar Lining for Ductile-Iron Pipe and Fittings for Water.