

METROPOLITAN UTILITIES DISTRICT OF OMAHA
 OMAHA, NEBRASKA

SPECIFICATIONS FOR
 POLYVINYL CHLORIDE (PVC) PIPE
 FOR WATER DISTRIBUTION SERVICE

Section 1 – General

- * 1.1 – Polyvinyl chloride (PVC) pipe shall conform to the latest version of AWWA C900 for potable water applications. Provide pipe with cast iron pipe outside diameters unless otherwise specified.
- 1.2 – Pipe and gaskets shall be NSF 61 compliant and shall be listed with Underwriters Laboratories, Inc. (U.L.).
- 1.3 – Pipe shall not be manufactured more than six months prior to the delivery date to the job site or District's storage yard.

* Section 2 – Design of Pipe

- 2.1 – Unless otherwise specified in the contract documents, 4" through 16" pipe shall be DR 14 (Pressure Class 305 psi).
- 2.2 – Unless otherwise specified in the contract documents, pipes 24" and larger shall be DR 18 (Pressure Class 235 psi).

Section 3 – Joints

- 3.1 – Push-on style joints shall be spigot and integral wall section bell with an elastomeric gasket. The gasket shall be factory assembled in the bell and secured in place to prevent displacement. The spigot end shall be factory beveled and referenced marked for proper seating depth. Solvent cemented joints are not acceptable.
- 3.2 – Restrained style joints shall consist of a PVC coupling, meeting PVC requirements of this specification, with a non-metallic locking spline. The coupling shall incorporate twin elastomeric sealing gaskets. The gasket shall be factory assembled in the coupling and secured in place to prevent displacement. Restrained joint pipe shall be Certainteed Certa-Lok™ C900/RJ™ PVC pipe or approved equal.

Section 4 – Pipe Markings

- * 4.1 – Pipe shall be marked in accordance with the latest edition of AWWA C900. This includes, at a minimum, the following information:
 - a. Nominal size and outside diameter base (example, 12 DIPS)
 - b. PVC.
 - c. Dimension ratio (example, DR18)
 - d. Pressure Class in PSI (example, PC235)
 - e. Hydrostatic integrity test pressure (example, T330)
 - f. AWWA designation for this standard (ANSI/AWWA C900)
 - g. Manufacturer's name or trademark and production run record or lot code.
 - h. Pipe shall bear the "U.L." and the "NSF 61" seal to verify compliance for potable water service.
 - i. The production date shall be included in the pipe markings.

Section 5 – Handling and Delivery

5.1 – All piping and related material shall be handled with care. Pipe shall be handled by use of slings, hoists, skids, or other standard means. Handling shall not be conducted with chains or cables in direct contact with the pipe.

5.2 – Blocking and hold-downs shall be used during transportation to prevent shifting and movement. Chains or cables shall not be used for hold-downs.

* 5.3 – During transportation, the leading edge of the pipe shall be covered to prevent foreign material (including exhaust, debris and insects) from entering the pipe.

5.4 – Small pipe shall not be stored or transported inside larger pipe.

5.5 – Dropping or rolling of pipe material is prohibited.

5.6 – PVC pipe that will be stored in direct sunlight in excess of 18 months shall be covered with an opaque material while permitting adequate air circulation above and around the pipe to prevent excessive heat accumulation.

Section 6 – Lubricant

The pipe manufacturer shall furnish a sufficient amount of pipe lubricant for the amount of pipe supplied. Lubricant shall comply to NSF 61.

Section 7 – Guarantee

The manufacturer guarantees all pipe and related materials against defects in materials and workmanship for a period of five years after delivery.

* Section 8 – Affidavit of Compliance

The manufacturer shall provide an affidavit with each pipe shipment that all materials comply with the requirements of AWWA C900 and this specification. The affidavit shall include manufacturer's production code (including the day, month, and year of production) and all material testing results required by the applicable AWWA standard. The affidavit shall include the M.U.D. job number for which material is being furnished.