

1040 - Steel Pipe and Fittings

Effective 10/1/2010

1. SPECIFICATIONS FOR STANDARD COATED STEEL PIPE

1. Refer to the [Construction Detail Manual Table of Contents](#) for details of specific steel pipe and fittings.
 1. 2" and larger black steel line pipe, API-5L, electric resistance welding (ERW), double random lengths (DRL), plain ends beveled (PEB) for welding with no mill coating/lacquer.
 2. Steel pipe less than 2" continuous or seamless weld, single random lengths (SRL), plain ends beveled (PEB) for welding with no mill coating/lacquer.
 3. All steel fittings and pipe should be manufactured domestically.
 4. All pipe should be made of continuous cast steel.
 5. Material test reports (mill certificates) for new pipe and fittings with a nominal diameter greater than or equal to 2 inches shall be furnished upon delivery.
 6. Vendor shall specify pipe manufacturer, average length (guaranteed), and coating applicator.
 7. No repairs of the pipe shall be made by welding; pipe with dents shall be rejected.
 8. Pipe surface preparation and coating application shall be in strict accordance with the National Association of Pipe Coating Applicators (NAPCA) specifications and the coating vendor's specifications and recommendations.
 9. For any pipe that is being bid and has already been coated, the pipe manufacturer/coater should specify the age of the coating on the pipe. Unless otherwise approved, DESC should not accept pipe coatings older than 30 days at the time of bid submittal.
 10. Fusion bond epoxy (FBE) coating shall be 16 mils average thickness (14 minimum) using 3M, Napgard, or Lilly FBE, green or red only. Cutbacks on ends shall be 2 inches (1.5 inches minimum and 2.5 inches maximum).
 11. Coal tar enamel (CTE) coating will consist of primers, coal tar enamels, fiberglass reinforced inner and outer wraps, and kraft paper. Asbestos and asbestos impregnated materials are not permissible. Total coating thickness will be 120 mils minimum.
 12. Powercrete overcoatings, if applicable, will be 20 mils or 40 mils average thickness (17 or 37 mils minimum), dependent upon the application and specification in the purchase order. Cutbacks on ends will be 4 inches (3.5 inches minimum and 4.5 inches maximum).
 13. Dual layer epoxy overcoatings, if applicable, will be 30 mils average thickness (27 mils minimum). Cutbacks on ends will be 4 inches (3.5 inches minimum and 4.5 inches maximum). Any alternate specs to this coating submitted must be adequate for the project.

14. Dry Coating Thickness will be measured with a magnetic film thickness gauge, calibrated against a 14 mil standard. Each pipe will be checked at least once with every fifth (5th) pipe checked three (3) times. If a problem develops, each pipe will be checked a minimum of five (5) times.
15. The entire coated surface area will be checked for holidays using a dry-type holiday detector set at 125 volts/mil of coating thickness. The holiday detector unit will be recalibrated daily.
16. All holidays and other coating defects will be marked with a non-grease type marker and the number of holidays recorded on each pipe.
17. Daily Cathodic Disbondment and Bend Test results will be provided before payment and must adhere to manufacturer specifications for each pipe size.
18. Any delivered pipe with unacceptable, unbonded or non-adherent coating and any delivered pipe with excessively damaged coating or holidays will be rejected and must be replaced by the vendor.
19. If providing epoxy type coatings, the company name of Dominion Energy South Carolina will be printed on the pipe coating along with pipe size, wall thickness, and yield strength (e.g. 10.250 x 0.250, X-42, 14 mils avg.).
20. After coating, all pipe will contact only properly padded surfaces through handling, storage, and delivery.
21. Each shipment will require two (2) days prior notification to DESC. An appropriate designated representative must be contacted.
22. Pipe will be delivered to the job site for off-loading and/or stringing by DESC's installing contractor. Note: Truck drivers may have to wait if more than one truck arrives at the same time.
23. DESC and/or DESC's contractor will inspect and randomly inspect ten (10) percent of the pipe on each shipment prior to off-loading to ensure compliance with the above specifications. Dry film thickness will also be measured. Failure of pipe to conform to these specifications will result in rejection of all pipe shipped with the rejected pipe.

FORMS AND REFERENCES [PDF files]

- [DI 1040 - Steel Pipe and Fittings Table](#)

(UNCONTROLLED IF PRINTED)