

1624 - ZINC COATINGS

SECTION 1624

ZINC COATINGS

1624.1 DESCRIPTION

This specification governs the requirements for zinc coatings applied to wrought and cast steel or cast iron products and components that are not specifically addressed within **DIVISION 1600**.

1624.2 REQUIREMENTS

Wrought and cast steel products not specifically governed by **DIVISION 1600** may be zinc coated in compliance with ASTM A 153 for hot dip galvanizing.

Cast iron products may be zinc coated by the hot dip galvanizing process in compliance with ASTM A 153, also refer to **SECTION 1613** and ASTM A 47, Supplementary Requirement S5, with regard to ferritic malleable iron castings. When hot dip galvanizing cast iron products, exercise caution to avoid galvanizing embrittlement.

Wrought and cast steel or cast iron products may also be corrosion protected by the mechanical deposition of a zinc coating in compliance with ASTM B 695 as an alternative method, particularly when galvanizing embrittlement may be a factor. The Class required for ASTM B 695 is to be determined from the ASTM A 153 minimum coating requirement for the product Class of Material.

When corrosion protection by zinc coating is required, it must be specified in the Contract Documents. The method of coating, however, is to be at the discretion of the product manufacturer and selected from the alternatives addressed within this subsection.

1624.3 TEST METHODS

The tests required for a product are to be based upon the consensus of the manufacturer and the KDOT. Conduct these tests as required by the applicable ASTM, or other material specifications of **subsection 1624.2**. Coating thickness may be measured by any one of the methods specified in ASTM B 633 and by eddy current methods, ASTM E 376 (B 244 may also be useful as a technique guideline), provided that appropriate calibration procedures and standards have been applied. The magnetic induction and eddy current methods are nondestructive in nature and are preferred. Destructive techniques, i.e., coating removal, may be utilized as referee methods.

1624.4 PREQUALIFICATION

Not applicable.

1624.5 BASIS OF ACCEPTANCE

Inspection and testing by field personnel of delivered products and components for compliance with dimensional and corrosion protection coating requirements, quality of workmanship, delivery condition, approval of any required associated documentation, and any other requirements as may be specified in the Contract Documents.

Measure coating thickness according to any of the procedures of **subsection 1624.3**.