Zinc

[ASTM-B633]

This specification covers requirements for electrodeposited zinc coatings applied to iron or steel articles to protect them from corrosion. It does not cover zinc-coated wire or sheets. High strength steels (tensile strength greater than 1700 MPa) shall not be electroplated. Stress relieve all parts with ultimate tensile strength 1000 MPa and above at minimum 190°C for 3 hours or more before cleaning and plating. Hydrogen embrittlement relieve all electroplated parts of 1200 MPa tensile strength or higher by baking at 190°C for 3 hours or more within 4 hours after electroplating.

Supplementary treatments shall be in accordance with Recommended Practice B201. Type IV shall be in accordance with Recommended Practice D2092.

Corrosion Resistance Requirements

Types	Test Period (Hours.)
II	96
III	12

To determine the nature of accuracy or revision level please verify above data with current releases:

Zinc plated components vary from one industry to another. They share, however, the most basic of metal finishing requirements: durable finish; aesthetically pleasant appearance; and cost effec- tive processing.
The designer and engineer must take into account several considerations to stay at the forefront of the finish potential. Not the least of which is the environmental regulations impact on the future of the selected finish.
Zinc and Zinc alloys, such as zinc-nickel will surely play a more significant role as metals such as Cadmium are destined for the elements' Valhalla. Such sacrificial metals, as Zinc, have significant corrosion resistance properties in spite of their apparent softness and propensity to scratching.

ClassificationA Number and Conversion Coating Suffix	Service Condition	Thickness Minimum (µm)
Fe/Zn 5	SC 1 (mild)	5 (.0002")
Fe/Zn 8	SC 2 (moderate)	8 (.0003")
Fe/Zn 12	SC 3 (severe)	12 (.0005")
Fe/Zn 25	SC 4 (very severe)	25 (.001")

A Iron or steel with zinc electroplate. Numeral indicates thickness in micrometers.
B Where service conditions are valid only for coatings with chromate conversion coating. Type II for SC 4 and SC 3 and Type III for SC 2 and SC 1.