26-742

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SPECIFICATION FOR SALT SPRAY TESTING

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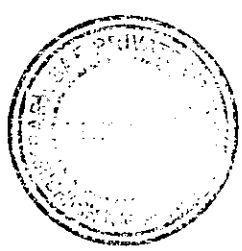

SPECIFICATION FOR SALT SPRAY TESTING

1.0 PURPOSE

1.1 This specification describes the system for salt spray Test of Zinc plated material from suppliers to ensure that received material is of required specifications.

1.2 This specification is intended to aid the Quality control / production department in out sourcing and the vendor to comply the requirements of Testing of Zinc plated material which needs to meet its intended use, and the quality control department in the inspection and release of incoming material.

2.0 SCOPE

2.1 This specification covers requirements of Salt Spray testing on Zinc plating to meet requirements of as specified in the ASTM B 633 or customer requirement.

2.2 All measurements shall compliance as specified in the ASTM B 633 specification.

3.0 APPLICABLE SPECIFICATION

- ASTM B 633-07
- ASTM B 117
- Material Spec as per Purchase Order
- Relevant Drawings / Specs

4.0 SPECIMEN PREPARATION

4.1 When the electroplated parts are of such from shape, size and value as to prohibit use thereof, or are not readily adaptable to a test specified herein, or when destructive tests of small lot sizes are required, the test shall be made by the use of separate specimens plated concurrently with the articles represented. The separate specimens shall be of a basis metal equivalent to the articles represented. "Equivalent" basis metal includes chemical composition, grade, condition and finish of surface before electroplating. For example, a cold-rolled steel surface shall not be used to represent a hot-rolled steel surface. Due to the impractically of forging or casting separate test specimens, hot-rolled steel specimens may be used to represent forged and cast steel articles. The separate specimens may also be cut from scrap castings when ferrous alloy castings are being electroplated. These separate shall be introduced into a lot at regular intervals before the cleaning operations, preliminary to electroplating and shall not be separated therefore until after completion of electroplating.

4.2 Conditions affecting the electroplating of specimens, including the spacing, plating media, bath agitation, temperature etc. in respect to other objects being electroplated, shall correspond as nearly as possible to those affecting the significant surfaces of the articles represented. Unless a need can be demonstrated, separately prepared specimens shall not be used in place of production terms for nondestructive and visual examinations.

4.3 If separate specimens for corrosion resistance tests are required, they shall be panels not less than 150 mm long, 100 mm wide, and approximately 1 mm thick.

5.0 CORROSION RESISTANCE

5.1 Zinc coating with Types II, III, V and VI treatments shall show neither corrosion products of zinc nor basis metal corrosion products at the end of the test period describe in Table 1 when tested by continuous exposure to salt spray in accordance with 4.2.

The appearance of corrosion products when examined with 20/20 eyesight at normal reading distance shall be cause for rejection, except that white corrosion products 6 mm or less from the edges of the specimens shall not constitute failure. For corrosion requirement see table 1.

5.2 The selected samples to the salt spray test; the length of time to be applicable for the type of supplementary coating shall be in accordance with the requirement of 4.1. To secure uniformity of results, age types II, III, V and VI supplementary coatings at room temperature for 24 h before subjection to the salt spray. The salt spray test shall commence within 72 h of the completion of the aging period.

5.3 Coating not conforming to this specification or to authorized modification shall be in rejected. They may be reconsidered for inspection in accordance with test method ASTM B 602.

Table 1

Type	Description	Minimum Salt Spray Hrs.
I	As-plated without supplementary treatments	--
II	With colored chromate coatings	96
III	With colorless chromate conversion coatings	12
IV	With phosphate conversion coatings	--
V	With colorless passivate	72
VI	With colorless passivate	120