



PLATING, BRIGHT OR LOW GLOSS DECORATIVE - STAINLESS STEEL

WSB-M1P25-B

1. SCOPE

This specification defines performance requirements for finished coatings of electrodeposited chromium for the decoration and protection of stainless steel surfaces.

2. APPLICATION

This specification was released originally for a coating where a bright, black or low gloss decorative and/or protective metallic finish is required on stainless steel surfaces such as exterior moldings. This specification does not apply to plated stainless steel screws which are covered by a separate specification.

FEASIBILITY

If the requirements of this specification cannot be met due to part design restrictions, the supplier will inform the responsible product engineering office.

3. REQUIREMENTS

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 APPEARANCE

All parts shall have the finish (bright, low gloss or paint overlay) specified on the engineering drawing. The plated parts shall be free from surface imperfections. Low gloss or black parts shall match the approved Styling master sample for appearance.

3.2.1 Low Gloss Finishes

These finishes must be applied to the stainless steel, before chrome plating.

3.2.2 Buffing Chromium Plating

Because of the potential adverse effect on corrosion resistance, buffing of final chromium plating on parts is not permitted.

Date	Action	Revisions	Rev 02
2014 12 04	Editorial	Correct spelling in title	R. Harris, NA
2003 07 29	Revised	Para 3.0 inserted; Para 3.7 & 4 deleted	
1988 04 20	SM/ER 3839 TC	Released J. Burke, JAF, MP. NAAO. J. Lines, FAO	

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3.3 ADHESION (ASTM B 571)

Adhesion of the plate to the base metal shall conform to the following requirements:

3.3.1 Sawing

No lifting or peeling of the electroplate from the substrate is permitted following the saw test.

3.3.2 Bending

No peeling, flaking, or lift-off of the electroplate from the substrate is permitted following the bend test.

3.4 PLATING THICKNESS

A minimum bright or black chromium plating thickness of 0.13 micrometers is required on significant surfaces.

3.4.1 Plating Thickness Measurement

3.4.1.1 The chromium plate thickness on significant surfaces shall be checked by the spot test as described in ASTM B 556 or by the Coulometric method, ASTM B-504. In case of difference, ASTM B 504 shall be the umpire method.

3.4.1.2 The black chromium plate thickness shall be checked by the electronic deplating test, FLT M BQ 003-05.

3.5 ACCELERATED CORROSION RESISTANCE (ASTM B 368)

16 h

Following CASS exposure for the appropriate duration as specified, failure is to be noted as follows:

- Any evidence of base metal corrosion deposits or blisters on significant surfaces shall constitute failure of the part.
- Any pit larger than 1.5 mm in diameter visible on any significant surface shall be considered failure of the part.

3.6 SURFACE FINISH

When a low gloss finish is specified for glare reduction surfaces to meet FMVSS requirements, it shall be designated on the Engineering Drawing.

The specular gloss of the surface shall not exceed the requirement of specification ▽ ESB-M25P2-A for the part in question.