



PLATING, BRIGHT OR LOW GLOSS DECORATIVE STAINLESS STEEL (CHROME FLASH), LEVEL 1 CORROSION

WSS-M1P96-B1

1. SCOPE

These specifications define performance requirements for electrodeposited chromium flash on polished stainless steel surfaces.

2. APPLICATION

These specifications were released originally for a coating where a bright or low gloss decorative and/or protective metallic finish is required on stainless steel surfaces such as exhaust outlet tips or interior and exterior moldings.

3. REQUIREMENTS

3.1 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 or low gloss as specified on the engineering drawing. The plated parts shall be free from surface imperfections. Bright or low gloss 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 flashing.

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. 5
2014 11 25	Editorial	Split from B2/3 suffix	G. Weber, NA
2011 06 27	Revised	Updated plating thickness and corrosion section.	C. Macna, NA
2008 04 18	Activated		C. Macna, NA



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 sawing 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 HEAT RESISTANCE

Exhaust tips must pass heat test of 15 minutes in air at 400 °C without discoloring.

3.5 PLATING THICKNESS (ASTM B 504)

0.25 microns min

3.6 CYCLIC CORROSION RESISTANCE

9 weeks

(CETP 00.00-L-467 with a 315°C heat soak with ice water bath quench once per week)
Chrome or Bright Metal Polish: Motorcraft Custom Bright Metal Cleaner (p/n ZC-15)

At 3 weeks, the part must be rated no worse than Grade 6 as defined by ASTM D 610. The weld seam shall be excluded from the area of assessment as long as it is located at the 6 o'clock position (+/- 10 degrees) of the exhaust tip. 645 mm² of surface exhibiting the highest amount of corrosion product (excluding weld seam) shall be hand polished with the approved chrome or bright metal polish. Upon inspection after polishing, surface shall be representative of an as-plated condition with no more than three pits of 0.5 mm² allowed.

At test termination, components must have an acceptable appearance after cleaning with chrome or bright metal polish. The acceptable appearance shall be based on a jury evaluation of at least two people, one person from Ford Exhaust Engineering, and the other from either Ford Exhaust or Materials Engineering. Final judgment of corrosion performance should be based on visibility of the parts as observed from the rear of the vehicle as described by in Total Vehicle Corrosion Resistance requirement 18-0040.

3.7 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.

4. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of these specifications.

4.1 SIGNIFICANT SURFACES

Unless otherwise specified on the engineering drawing, significant surfaces are defined as those surfaces of the finished part that:

- Are directly visible and/or visible by reflection when the finished part is assembled in car position.