



ENGINEERING MATERIAL SPECIFICATION

Material Name	File Control No.	Specification Number
BRIGHT DECORATIVE ELECTROPLATING - BRASS AND COPPER	SMT5001PD1610 SMT5001PD1600	SJ-M1P9001-AA INACTIVE SJ-M1P9002-AA

1. SCOPE

The material defined by this specification defines the requirements for finished coatings of electro-deposited nickel or nickel-chromium for the decoration and protection of brass surfaces.

Interior parts: SJ-M1P9001-AA, Exterior Parts: SJ-M1P9002-AA.

2. APPLICATION

These coatings are specified, where a bright decorative and/or protective metallic finish is required on copper or brass surfaces. Unless otherwise specified on the Engineering Drawing, all parts shall be finished with a final coating of chromium. When a nickel finish is desired, the Engineering Drawing shall specify nickel plate, e.g. nickel plate SJ-M1P9001-AA, omit chromium plating.

3. REQUIREMENTS

3.1 APPEARANCE

All parts shall have a bright finish unless otherwise specified on the Engineering Drawing. The plated parts shall be free from surface imperfections such as roughness or orange peel conditions, crazing, cold shuts, pits, slivers, dullness, stains, discolouration, breaks in the plate, and wheel marks or buff lines to the extent required by specifications for the visual inspection of appearance items established by Product Engineering.

3.1.1 Buffing of Chromium Plating

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

3.2 ADHESION

The plate shall adhere to the base metal and show no separation between layers or plate when tested as follows:

3.2.1 Sawing

Position the part in a vice or holding fixture so that the significant plated surface is perpendicular to the saw blade and the cutting motion of the blade is in a direction which tends to pull the plating away from the base metal.

Date	Release No.	Release/Revision
1989 08 31	B/031527TC	Retyped. Revised clause 3.3.3, was 5 sheets
1972 01 25	CH4016JP	Released

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Uebersetzung

3.2.2 Bending

Any section of the part containing a significant plated surface shall be positioned in a vice or holding fixture and subjected to repeated bending until fracture of the section.

3.3 PLATING THICKNESS

3.3.1 Minimum plating thickness requirement:-

	Thickness in mm x 10 ⁻³	
	Ni	Cr
SJ-M1P9001-AA	2,5	0,25
SJ-M1P9002-AA	10,0	0,25

3.3.2 Significant Surfaces

All surfaces visible on a part as assembled in a vehicle, or surfaces which can be the source of corrosion products visible on an assembled vehicle, are significant surfaces. Except as noted on the Engineering Drawing, all significant surfaces shall meet the plate thickness requirements, as detailed in 3.3.1. Threads shall be completely plated, but shall not be considered as significant surfaces, unless so indicated on the Engineering Drawing.

3.3.3 Plating Thickness Measurement

The optical measurement of nickel deposits on significant surfaces shall be considered the standard thickness test method (ASTM B 487).

The chromium plate thickness on significant surfaces shall be checked by the spot test as described in ASTM B 556 or by the deplating electronic test, Ford Laboratory Test Method EU BQ 3-1. In case of differences Ford Laboratory Test Method EU BQ 3-1 shall be the umpire method.

3.4 PROCEDURE

Details of procedure are not limited by this specification. Any process resulting in a satisfactory plate meeting the requirements of this specification will be approved.