

AEROSPACE MATERIAL SPECIFICATION

SAE AMS 2451/4B

Issued 1998-07
Revised 2007-10

Superseding AMS 2451/4A

Plating, Brush, Cadmium
Corrosion Protective, Low Hydrogen Embrittlement

RATIONALE

AMS 2451/4B results from a Five Year Review and update of this specification.

1. SCOPE

1.1 Purpose

This specification establishes the requirements for brush plating of cadmium by electrodeposition.

1.2 Application

This process has been used typically to apply a corrosion-protective coating and to repair damaged or worn parts. It is particularly useful when prevention of hydrogen embrittlement of high-strength steel parts or assemblies is sought.

1.3 Safety - Hazardous Materials

See AMS 2451.

1.4 Warning

This document includes cadmium as a plating material. The use of cadmium has been restricted and/or banned for use in many countries due to environmental and health concerns. The user should consult with local officials on applicable health and environmental regulations regarding its use.

2. APPLICABLE DOCUMENTS

See AMS 2451.

3. TECHNICAL REQUIREMENTS

See AMS 2451.

3.1 Procedure

3.1.1 Cadmium shall be electrodeposited from low-hydrogen-embrittlement brush plating solution in accordance with processing instructions from the solution manufacturer.

3.1.2 Steel parts, heat treated to 180 ksi (HRC 40) minimum or higher, shall be embrittlement relieved in accordance with AMS 2759/9 unless plated specimens have passed the hydrogen embrittlement test of AMS 2451.

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