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AEROSPACE MATERIAL SPECIFICATION

AMS 2451/3A

Issued 1998-07
Revised 2006-05
Reaffirmed 2011-04
Superseding AMS 2451/3

Plating, Brush, Nickel
Low Stress, Low-Hardness Deposit

RATIONALE

AMS 2451/3A is a Five Year Review and update of this specification.

1. SCOPE

1.1 Purpose

This specification covers the requirements for brush plating of low-hardness, low-stress nickel by electrodeposition.

1.2 Application

This process has been used typically to improve the corrosion and oxidation resistance of steel alloys, to repair damaged, worn, or mismachined parts requiring low residual surface stress, to prepare surfaces for brazing, and to repair nickel electrodeposits on parts with service a temperature up to 700 °F (371 °C) but is not limited to such applications.

1.3 Safety - Hazardous Materials

See AMS 2451.

2. APPLICABLE DOCUMENTS

See AMS 2451.

3. TECHNICAL REQUIREMENTS

See AMS 2451.

3.1 Procedure

3.1.1 Nickel shall be electrodeposited from a sulfamate nickel brush plating solution in accordance with instructions from the solution manufacturer. The plating solution shall contain no addition agents, including stress-reducing agents, which might have a detrimental effect on properties of the plate or of the basis metal.

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