ADOPTION NOTICE

SAE-AMS2472, "ALUMINUM ALLOYS SULFURIC ACID PROCESS, DYED COATING, ANODIC TREATMENT OF", was adopted on 03-OCT-94 for use by the Department of Defense (DoD). Proposed changes by DoD activities must be submitted to the DoD Adopting Activity: ASC/ENOI, Building 560, 2530 Loop Road West, Wright-Patterson AFB, OH 45433-7101. Copies of this document may be purchased from the Society of Automotive Engineers 400 Commonwealth Drive Warrendale, Pennsylvania, United States, 15096-0001. http://www.sae.org/

Custodians:
Army - MR
Navy - SH
Air Force - 11

Adopting Activity:
Air Force - 11

AREA MFFP

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

SAE The Engineering Society For Advancing Mobility Land Sea Air and Space®
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE MATERIAL SPECIFICATION

SAE AMS 2472E

Issued FEB 1965
Revised JUL 2000

Superseding AMS 2472D

Anodic Treatment of Aluminum Alloys Sulfuric Acid Process, Dyed Coating

1. SCOPE:

1.1 Purpose:

This specification establishes the engineering requirements for producing dyed anodic coatings on aluminum alloys and the properties of such coatings.

1.2 Application:

This process has been used typically to increase corrosion resistance and to produce colored surfaces on aluminum alloy parts, but usage is not limited to such applications.

1.2.1 AMS 2470 or AMS 2471 should be specified for coatings to be used as a base for paint or other organic finishes. This process is not suitable for parts which contain joints or recesses in which the anodizing solutions may be retained.

1.3 Classification:

This specification covers two types of coating classified as follows:

Class 1 Coatings for Identification
Class 2 Coatings for Decorative Purposes

When no class is specified, Class 1 shall be supplied.

1.4 Safety - Hazardous Materials:

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

QUESTIONS REGARDING THIS DOCUMENT: (724) 772-7161 FAX: (724) 776-0243
TO PLACE A DOCUMENT ORDER: (724) 776-4970 FAX: (724) 776-0790
SAE WEB ADDRESS: http://www.sae.org

2. APPLICABLE DOCUMENTS:

The issue of the following documents in effect on the date of the purchase order form a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been canceled and no superseding document has been specified, the last published issue of that document shall apply.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 2470	Anodic Treatment of Aluminum Alloys, Chromic Acid Process
AMS 2471	Anodic Treatment of Aluminum Alloys, Sulfuric Acid Process, Undyed Coating
AMS 2473	Chemical Film Treatment for Aluminum Alloys, General Purpose Coating
AMS 4037	Aluminum Alloy, Sheet and Plate, 4.4Cu - 1.5Mg - 0.60Mn, (2024; -T3 Flat Sheet, -T351 Plate), Solution Heat Treated

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM B 117	Operating Salt Spray (Fog) Testing Appartus
ASTM B 137	Measurement of Mass of Coating on Anodically Coated Aluminum

3. TECHNICAL REQUIREMENTS:

3.1 Solutions:

3.1.1 Electrolyte: Shall be an aqueous solution of sulfuric acid of suitable concentration (See 8.2.2) maintained within ±2 °F (±1 °C) of the temperature approved in 4.4.2.

3.1.2 Dye: Shall be as required to produce the specified color.

3.1.3 Sealer: Sealer shall be an aqueous solution of nickel acetate or cobalt acetate or other solution acceptable to purchaser (See 8.2.3).

3.2 Procedure:

3.2.1 Masking: Areas where anodizing is prohibited shall be masked.

3.2.2 Tight electrical contact shall be maintained during the anodic treatment to prevent contact arcing (burning) of parts, but small irregularities of coating at points of electrical contact are acceptable.