ADOPTION NOTICE

SAE-AMS7292, "Labels, Aluminum Foil, Etched, Anodized, and Dyed," was adopted on October 3, 1994, for use by the Department of Defense (DoD). Proposed changes by DoD activities must be submitted to the DoD Adopting Activity: WR-ALC/TILBA, 255 Second Street, Robins AFB, GA 31098-1637. DoD activities may obtain copies of this standard from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094. The private sector and other Government agencies may purchase copies from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096.

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400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

S-07-31

AMS 7292

Issued 2-1-56
Revised 10-1-87

LABELS, ALUMINUM FOIL
Etched, Anodized, and Dyed

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of April 2, 1987. It is recommended that this specification not be specified for new designs.

This cover sheet should be attached to the "Original Issue" of the subject specification.

Noncurrent refers to those materials which have previously been widely used and which may be required on some existing designs in the future. The Aerospace Materials Division does not recommend these as standard materials for future use in new designs. Each of these "Noncurrent" specifications is available on request.

This specification is under the jurisdiction of the AMS Committee "D".

5.07.31

AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. Two Pennsylvania Plaza, New York, N. Y. 10001

AMS 7292

Issued 2-1-56
Revised

LABELS, ALUMINUM FOIL
Etched, Anodized, and Dyed

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.

2. APPLICATION: For use on surfaces which may be subject to abrasion and weathering at temperatures up to 300 F.

3. CONSTRUCTION: Shall consist of 1145-H19 or equivalent aluminum foil with a pressure sensitive adhesive backing suitably protected by a cellophane film.

4. TECHNICAL REQUIREMENTS:

4.1 General:

4.1.1 Printing: The legend on the face of the label shall be as specified on the drawing or purchase order.

4.1.2 Finish:

4.1.2.1 Face: The legend shall be aluminum, unless otherwise specified. All aluminum areas shall be etched to a level below that of colored areas and need not be anodized, and, unless otherwise specified, shall have a dull matte finish. All colored areas (legend or background), shall be sulfuric acid anodized and dyed, and, unless otherwise specified, shall have a black dull matte finish.

4.1.2.2 Back: The adhesive side need not be anodized. Discoloration of the label back shall not be considered objectionable.

4.1.3 Installation: Labels shall be capable of being installed on smooth clean bare or primed aluminum by the following procedure: The label shall be immersed in water at 70 - 85 F for 1 - 1.5 min., the excess water blotted off, the cellophane backing removed, and the label applied and pressed down firmly to the surface.

4.1.4 Corrosion: The product shall not have a corrosive effect on other materials when exposed to conditions normally encountered in service. Discoloration of the surface under the label shall not be considered objectionable.

4.1.5 Shelf Life: After aging in the original sealed unit container for 6 months under conditions normally encountered in storage, the labels shall be capable of meeting all requirements of this specification.

Printed in U. S. A.

4.2 Properties:

4.2.1 Adhesion: The label shall have an average peel strength of not less than 3.50 lb per in. width when a specimen 1 in. wide and 3 - 5 in. long is installed approximately in the center of an aluminum panel 1.5 in. wide, 5 in. long, and 0.040 in. thick.

4.2.1.1 Sample Preparation: Soak label in clean water at 70 - 85 F for 1 - 1.5 minutes. Blot off all excess water and remove cellophane backing. Allow moisture to dry from adhesive surface for at least 3 min., then apply label to a clean, bare, 2024-T3 aluminum alloy panel. Roll down with a smooth, hard-faced roller 2 - 5 in. in diameter, with 10 lb being exerted on the label, using 5 strokes in each direction at a rate of about 1 in. per second. Allow to cure at 70 - 85 F for 72 hours.

4.2.1.2 Peel Strength Testing: Peel the label back from one end of the panel about 1 in., and bend the exposed end of the panel in a sharp right angle away from the label. Grip the bent end of the panel and the label in jaws of a tensile testing machine and peel the balance of the label from the panel at an angle of about 90 deg, using a cross-head speed of 12 in. per minute. The test shall be performed at 70 - 85 F.

4.2.1.3 Results: Report for each specimen the average of at least 3 readings taken at equal intervals of 1/2 - 1 in. of label peeled, depending on the sample size, except no readings shall be taken during the first or last 1/2 in. of peeling.

4.2.2 Fluid Resistance: Labels applied in accordance with 4.2.1.1 shall not blister, lift, or delaminate when immersed in the following fluids at 70 - 85 F, for the specified times:

4.2.2.1 Fuel: Immerse in Reference Fuel A in accordance with ASTM D471-54T for 4 hours. Edge penetration up to 1/16 in. shall not be cause for rejection.

4.2.2.2 Water: Immerse in distilled or deionized water for 24 hours.

4.2.3 Weather Resistance: Labels applied in accordance with 4.2.1.1 shall be capable of being exposed for 300 hr at 145 F + 5 in a single arc accelerated weathering apparatus (Atlas or equivalent) without loss of adhesion or legibility. Slight fading or color change shall not be reason for rejection. Panels in the weathering apparatus shall receive 17 min. of light alone and 3 min. of light with spray of deionized water, for every 20 min. of operation.

4.2.4 Abrasion Resistance: Labels applied in accordance with 4.2.1.1 shall be entirely legible after 750 cycles on a Taber Abraser using CS-17 wheels, 1000 g loads, and a vacuum grit pickup.

4.2.5 Heat Aging: Labels applied in accordance with 4.2.1.1 shall be capable of being heated at a temperature of 300 F + 10 for 24 hr without blistering, curling, delaminating, or loss of legibility. After cooling to 70 - 85 F, the label shall be capable of passing the adhesion test of 4.2.1.