

SUPERSEDED



400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

## AEROSPACE MATERIAL SPECIFICATION

**AMS** 4104

Issued 3-15-66  
Revised 7- 1-81

### ALUMINUM ALLOY SHEET AND PLATE 4.5Cu - 1.5Mg - 0.60Mn (2024-T86) Width Over 30 to 48 In., Incl

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of 3-25-74. 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.

This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE, as of 7- 1-81. By this action, subject specification number and title will be deleted from the active specification index of Aerospace Material Specifications.

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# AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc

485 Lexington Ave, New York, N Y 10017

## AMS 4104

Issued 3-15-66  
Revised

### ALUMINUM ALLOY SHEET AND PLATE

4.5Cu - 1.5Mg - 0.60Mn (2024-T86)

Width Over 30 to 48 In., Incl

- 1. ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
- 2. FORM:** Sheet and plate, produced in widths over 30 to 48 in., inclusive.
- 3. APPLICATION:** Primarily for structural parts of good strength. This material, when re-heat treated by the user, may not have the tensile properties shown. Certain design and processing procedures may cause this material to be susceptible to stress corrosion cracking; ARP 823 recommends practices to minimize such conditions.
- 4. COMPOSITION:**

|                         | min       | max  |
|-------------------------|-----------|------|
| Copper                  | 3.8       | 4.9  |
| Magnesium               | 1.2       | 1.8  |
| Manganese               | 0.30      | 0.9  |
| Iron                    | --        | 0.50 |
| Silicon                 | --        | 0.50 |
| Zinc                    | --        | 0.25 |
| Chromium                | --        | 0.10 |
| Other Impurities, each  | --        | 0.05 |
| Other Impurities, total | --        | 0.15 |
| Aluminum                | remainder |      |

- 5. CONDITION:** Solution heat treated, cold reduced approximately 6% in thickness, and precipitation heat treated.
- 6. TECHNICAL REQUIREMENTS:** The product shall conform to the following requirements; tensile properties shall be determined in accordance with the latest issue of AMS 2355.

#### 6.1 Tensile Properties:

| Nominal Thickness<br>Inch | Tensile<br>Strength<br>psi, min | Yield Strength at 0.2% Offset<br>or at Extension Indicated<br>(E = 10,500,000) |                                      | Elongation<br>% in 2 in.<br>or 4D, min |
|---------------------------|---------------------------------|--------------------------------------------------------------------------------|--------------------------------------|----------------------------------------|
|                           |                                 | psi, min                                                                       | Extension Under Load<br>in. in 2 in. |                                        |
| 0.020 to 0.062, incl      | 72,000                          | 66,000                                                                         | 0.0166                               | 3                                      |
| Over 0.062 to 0.249, incl | 72,000                          | 67,000                                                                         | 0.0168                               | 4                                      |
| Over 0.249 to 0.500, incl | 71,000                          | 66,000                                                                         | 0.0166                               | 4                                      |

- 6.1.1** When a dispute occurs between purchaser and vendor over the yield strength values, yield strength determined by the offset method shall apply.
- 7. QUALITY:** Material shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external imperfections detrimental to fabrication or to performance of parts.