

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 4047A

Issued 2-15-53

Revised 11-1-54

ALUMINUM ALLOY SHEET AND PLATE, ALUMINUM ALLOY CLAD, ROLL TAPERED 5.6Zn - 2.5Mg - 1.6Cu - 0.25Cr (Alc 75S-T6)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for making tapered skins, for airfoil surfaces.
3. COMPOSITION:

| Core | | Cladding | |
|-------------------------|-------------|-------------------------|-------------|
| Zinc | 5.1 - 6.1 | Zinc | 0.75 - 1.25 |
| Magnesium | 2.1 - 2.9 | Silicon + Iron | 0.7 max |
| Copper | 1.2 - 2.0 | Magnesium | 0.10 max |
| Chromium | 0.18 - 0.40 | Copper | 0.10 max |
| Iron | 0.7 max | Manganese | 0.10 max |
| Silicon | 0.5 max | Other Impurities, each | 0.05 max |
| Manganese | 0.30 max | Other Impurities, total | 0.15 max |
| Titanium | 0.20 max | Aluminum | remainder |
| Other Impurities, each | 0.05 max | | |
| Other Impurities, total | 0.15 max | | |
| Aluminum | remainder | | |

4. CONDITION: Solution and precipitation heat treated.

5. TECHNICAL REQUIREMENTS:

- 5.1 Cladding Thickness:

- 5.1.1 Prior to Rolling: Aluminum alloy plates which are bonded to the alloy ingot or slab preparatory to rolling to the specified thickness of the material shall each have a thickness of not less than 1% of the total composite thickness for sheet having a finished thickness less than 0.188 in. at the thin end and not less than 1.5% for sheet or plate having a finished thickness of 0.188 in. or over at the thin end.
- 5.1.2 Finished Product: After rolling the cladding thickness shall not be less than 3.25% of the total composite thickness for sheet less than 0.188 in. thick at the thin end and not less than 1% nor more than 2% for sheet or plate 0.188 in. thick or over at the thin end. Routine measurements are not required.

Section 7C of the SAE Technical Board rules provides that: "All technical reports prepared for use by anyone engaged in industry or trade is entirely voluntary. There is no obligation to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."