

Aluminium Bare Sheet & Plate

Typical Applications

- Aircraft structures
- Automotive
- Gears & shafts

Product Description

AMS QQA 250/12 aluminium alloy is a very high strength aerospace aluminium and is commonly used in applications where the strength of the material is critical and where the need for good corrosion resistance is not important. Offering superior stress corrosion resistance, AMS QQA 250/12 provides very high yield and tensile strengths which is dictated by the particular chosen temper.

Key Features

- Very high strength aerospace aluminium
- Superior stress corrosion
- Up to 465 MPa yield strength and 540 MPa tensile strength depending on temper
- Used where high strength is critical and where good corrosion resistance is not important

Availability

Plate and sheet

Machinability

Fair

Chemical Composition (weight %)

| | Si | Fe | Cu | Mn | Cr | Mg | Zn | Ti | Al | Others |
|------|------|------|-----|------|------|-----|-----|------|-----|--------|
| min. | | | 1.2 | | 0.18 | 2.1 | 5.1 | | Bal | |
| max. | 0.40 | 0.50 | 2.0 | 0.30 | 0.28 | 2.9 | 6.1 | 0.20 | Bal | 0.15 |

Mechanical Properties

| | | |
|--------------|------------------|-------------------------------|
| T6 (Sheet) | Thickness | Tensile Strength (ksi) |
| | 0.008-0.011 | 74.0 min |
| | 0.012-0.039 | 76.0 min |
| | 0.040-0.125 | 78.0 min |
| | 0.126-0.249 | 78.0 min |
| T651 (Plate) | Thickness | Tensile Strength (ksi) |
| | 0.250-0.499 | 78.0 min |
| | 0.500-1.000 | 78.0 min |
| | 1.001-2.000 | 77.0 min |
| | 2.001-2.500 | 76.0 min |
| | 2.501-3.000 | 72.0 min |
| | 3.001-3.500 | 71.0 min |
| 3.501-4.000 | 67.0 min | |

Physical Properties

| | |
|-------------------------------|------------------------|
| Density | 2.81 g/cm ³ |
| Melting Point | 635 °C |
| Modulus of Elasticity | 72 GPa |
| Thermal Conductivity | 134-160 W/m.K |
| Electrical Resistivity | 40% IACS |

Properties dependent on chosen temper.

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

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Quality & Testing:



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