

### 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)	<b>Thickness</b>	<b>Tensile Strength (ksi)</b>
	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)	<b>Thickness</b>	<b>Tensile Strength (ksi)</b>
	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

<b>Density</b>	2.81 g/cm <sup>3</sup>
<b>Melting Point</b>	635 °C
<b>Modulus of Elasticity</b>	72 GPa
<b>Thermal Conductivity</b>	134-160 W/m.K
<b>Electrical Resistivity</b>	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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