

## SPECIFICATIONS

Commercial 6061

A medium strength aerospace aluminium alloy with, depending upon temper, Yield Strength of up to 35 ksi (240 MPa) and Tensile Strength of 42 ksi (290 MPa)

## CHEMICAL COMPOSITION

SAE AMS QQ-A-250/11  
Alloy QQ A 250/11

Element	% Present
Magnesium (Mg)	0.8 - 1.2
Silicon (Si)	0.4 - 0.8
Iron (Fe)	0.7 max
Copper (Cu)	0.15 - 0.4
Chromium (Cr)	0.04 - 0.35
Zinc (Zn)	0.25 max
Manganese (Mn)	0.15 max
Titanium (Ti)	0.15 max
Others (Total)	0.15 max
Other (Each)	0.05 max
Aluminium (Al)	Balance

## ALLOY DESIGNATIONS

Aluminium alloy QQ-A-250/11 has similarities to the following standard designations and specifications **but may not be a direct equivalent:**

Alloy 6061, UNS A96061, ASTM B209, AMS 4026, AMS 4027

## TEMPER TYPES

Alloy QQ-A-250/11 is supplied in a wide range of tempers:

- O - Soft
- T4 - Solution heat treated and naturally aged to a substantially stable condition
- T42 - Solution heat treated and naturally aged to a substantially stable condition
- T451 - Solution heat treated then stress relieved by stretching. Equivalent to T4.
- T6 - Solution heat treated and artificially aged
- T62 - Solution heat treated then artificially aged by the user
- T651 - Solution heat treated, stress relieved by stretching then artificially aged

## SUPPLIED FORMS

Alloy QQ-A-250/11 is supplied in plate and sheet

- Plate
- Sheet

## GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.63 g/cm <sup>3</sup>
Melting Point	650 °C
Thermal Expansion	23.3 x10 <sup>-6</sup> /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	180 W/m.K
Electrical Resistivity	46.5 % IACS

## MECHANICAL PROPERTIES

Mechanical Properties shown are for '0' temper

Thickness (mm)	Proof Strength (Min)	Tensile Strength (Min)	Elongation % (Min)
Over 0.2 up to & incl. 0.5	83	152	14
Over 0.5 up to & incl. 3.2	83	152	16
Over 3.2 up to & incl. 12.8	83	152	18

## CONTACT

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## REVISION HISTORY

Datasheet Updated	03 January 2014
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