

## SPECIFICATIONS

Aerospace	QQ-A-200/8 T6511
Commercial	6061

A medium strength aerospace aluminium alloy with, depending upon temper, Yield Strength of 12-35 ksi (80 - 240 MPa) and Tensile Strength of 26-38 ksi (180 - 260 MPa).

This alloy is used where good strength combined with workability is required.

## CHEMICAL COMPOSITION

SAE AMS QQ-A-200/8 Alloy QQ A 200/8	
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-200/8 has similarities to the following standard designations and specifications **but may not be a direct equivalent:**

AMS 4150, AMS 4173

## TEMPER TYPES

Alloy QQ-A-200/8 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
- T4510 - Solution heat treated and stress-relieved by stretching. Equivalent to T4 condition.
- T4511 - Solution heat treated and stress-relieved by stretching. Equivalent to T4 condition.
- T6 - Solution heat treated and artificially aged
- T62 - Solution heat treated then artificially aged by the user
- T6510 - Solution heat treated and stress-relieved by stretching then artificially aged with no straightening after aging
- T6511 - Solution heat treated and stress-relieved by stretching then artificially aged with minor straightening after aging

## SUPPLIED FORMS

Alloy QQ-A-200/8 is supplied in sheet, bar, rod, wire, tube and extruded sections:

- Bar
- Extrusions
- Sheet
- Tube

## GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.70 g/cm <sup>3</sup>
Melting Point	650 °C
Thermal Expansion	23.4 x10 <sup>-6</sup> /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	166 W/m.K
Electrical Resistivity	0.040 x10 <sup>-6</sup> Ω .m

## MECHANICAL PROPERTIES

These Mechanical Properties are for Bar in the T6511 temper

Diameter (mm)	Proof Strength (Min)	tensile Strength (Min)	Elongation % (Min)
Up to & incl. 6.3	241	262	8
Over 6.3	241	262	10

## CONTACT

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## REVISION HISTORY

Datasheet Updated	14 January 2019
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