

Aluminium Alloy

QQ-A-200/8 T6511 Bar



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 ³
Melting Point	650 °C
Thermal Expansion	23.4 x10 ⁻⁶ /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	166 W/m.K
Electrical Resistivity	0.040 x10 ⁻⁶ 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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This Data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

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