

SPECIFICATIONS

Commercial	7075
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A very high strength aerospace aluminium alloy with, depending upon temper, Yield Strength of 24-68 ksi (165 - 465 MPa) and Tensile Strength of 40-78 ksi (275 - 540 MPa).

This alloy is used where high strength is required and where good resistance to general corrosion is NOT important.

CHEMICAL COMPOSITION

SAE AMS QQ-A-200/11 Alloy QQ A 200/11	
Element	% Present
Zinc (Zn)	5.1 - 6.1
Magnesium (Mg)	2.1 - 2.9
Copper (Cu)	1.2 - 2
Iron (Fe)	0.5 max
Silicon (Si)	0.4 max
Manganese (Mn)	0.3 max
Chromium (Cr)	0.18 - 0.28
Titanium (Ti)	0.2 max
Others (Total)	0.15 max
Other (Each)	0.05 max
Aluminium (Al)	Balance

ALLOY DESIGNATIONS

Aluminium alloy QQ-A-200/11 has similarities to the following standard designations and specifications **but may not be a direct equivalent:**

AMS 4166, AMS 4168, AMS 4169

TEMPER TYPES

Alloy QQ-A-200/11 is supplied in a wide range of tempers:

- O - Soft
- 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
- T73 - Solution heat treated then specially artificially aged for resistance to stress corrosion
- T7310
- T7311
- T8511 - Solution heat treated, stress-relieved by stretching then artificially aged
- T7351 - Solution heat treatment then specially artificially aged for resistance to stress corrosion.
- T73511

SUPPLIED FORMS

Alloy QQ-A-200/11 T6511 is supplied in extruded bar

- Bar
- Extrusions

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.81 g/cm ³
Melting Point	635 °C
Thermal Expansion	23.5 x10 ⁻⁶ /K
Modulus of Elasticity	72 GPa
Thermal Conductivity	134-160 W/m.K
Electrical Resistivity	40 % IACS

'Typical' Physical Properties are given

MECHANICAL PROPERTIES

These Mechanical Properties are for Bar in the T73 temper

Diameter (mm)	Proof Strength (Min)	Tensile Strength (Min)	Elongation % (Min)
Up to & incl. 6.3	400	469	7
Over 6.3 up to & incl. 38	420	483	8
Over 38 up to & incl. 76.2	407	476	8
Over 76.2 up to & incl. 114	393	469	7

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REVISION HISTORY

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