Aluminium Alloy
QQ-A-200/3 T3511 Bar

SPECIFICATIONS

Commercial	2024

A high strength alloy with, dependent upon temper, minimum Proof Stress up to 56 ksi / 385 Mpa and minimum Tensile Strength up to 70 ksi / 482 MPa.
Used in high strength applications where no welding is required.

CHEMICAL COMPOSITION

SAE AMS QQ-A-200/3
Alloy QQ-A-200/3

Element	% Present
Copper (Cu)	3.8 - 4.9
Magnesium (Mg)	1.2 - 1.8
Manganese (Mn)	0.3 - 0.9
Silicon (Si)	0.5 max
Iron (Fe)	0.5 max
Zinc (Zn)	0.25 max
Titanium (Ti)	0.15 max
Others (Total)	0.15 max
Chromium (Cr)	0.1 max
Other (Each)	0.05 max
Aluminium (Al)	Balance

ALLOY DESIGNATIONS

Aluminium alloy QQ-A-200/3 has similarities to the following standard designations and specifications **but may not be a direct equivalent:**
AMS 4164, AMS 4165

TEMPER TYPES

Alloy QQ-A-200/3 is supplied in a wide range of tempers:

- O - Soft
- T3 - Solution heat treated, cold worked and naturally aged
- T3510 - Solution heat treated and stress-relieved by stretching. Equivalent to T4 condition.
- T3511 - Solution heat treated and stress-relieved by stretching. Equivalent to T4 condition.
- T42 - Solution heat treated and naturaly aged to a substantially stable condition
- T81 - Solution heat treated, cold worked then artificially aged
- T8510 - Solution heat treated, stress-relieved by stretching then artificially aged
- T8511 - Solution heat treated, stress-relieved by stretching then artificially aged

SUPPLIED FORMS

Alloy QQ-A-200/3 is supplied in Bar, Rod, Wire, Tube and Extruded Sections.

- Bar
- Extrusions
- Tube

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.79 g/cm³
Melting Point	640 °C
Thermal Expansion	23.1 x10^{-6} /K
Modulus of Elasticity	73 GPa
Thermal Conductivity	121-150 W/m.K
Electrical Resistivity	30-40 % IACS

'Typical' Physical Properties are given

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MECHANICAL PROPERTIES

These Mechanical Properties are for QQ-A-200/3 Bar in the T3511 temper

Diameter (mm)	Proof Strength (Min)	Tensile Strength (Min)	Elongation % (Min)
Up to & incl. 6.3	290	392	12
Over 6.3 up to & incl. 19	303	413	12
Over 19 up to & incl. 38.1	317	448	10
Over 38.1	358	482	10

CONTACT

Address: (incorporated in the USA)
Tel: +44 (0)1371 811 642
Email: info@aerometalsalliance.com

REVISION HISTORY

Datasheet Updated 14 January 2019

DISCLAIMER

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.

Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date.

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Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

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