Aluminium Alloy
QQ-A-200/3 T8511 Bar

Aero Metals Alliance

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

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:
AMS 4164, AMS 4165

TEMPER TYPES

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

- T3 - Solution heat treated, cold worked and naturally aged
- T8511 - Solution heat treated, stress-relieved by stretching then artificially aged
- T3511 - Solution heat treated and stress-relieved by stretching. Equivalent to T4 condition.

SUPPLIED FORMS

Alloy QQ-A-200/3 is supplied as Extruded Bar

- Bar
- Extrusions

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.74 g/cm³
Melting Point	640 °C
Thermal Expansion	23.1 x10^{-6} /K
Modulus of Elasticity	73 GPa
Thermal Conductivity	121 W/m.K
Electrical Resistivity	30 % IACS

MECHANICAL PROPERTIES

These values apply to QQ-A-200/3 bar in the T8511 temper

Diameter (mm)	Proof Strength (Min)	Tensile Strength (Min)	Elongation % (Min)
Up to & incl. 6.25mm	386	441	4
Over 6.3mm up to & incl. 38mm	400	455	5
Over 38mm	400	455	5

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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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