

Aluminium Alloy

QQ-A-225/6 T351 Bar



SPECIFICATIONS

Aerospace	QQ-A-225/6 T351
Commercial	2024

A medium to high strength alloy with, dependent upon temper, minimum Proof Stress up to 58 ksi / 400 Mpa and minimum Tensile Strength up to 66 ksi / 455 MPa

CHEMICAL COMPOSITION

SAE AMS QQ-A-225/6 Alloy QQ A 225/6	
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 + Zirconium (Ti+Zr)	0.2 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-225/6 has similarities to the following standard designations and specifications **but may not be a direct equivalent:**
AMS 4120, Alloy 2024, UNS A92024

TEMPER TYPES

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

- O - Soft
- T42 - Solution heat treated and naturally aged to a substantially stable condition
- T8510 - Solution heat treated, stress-relieved by stretching then artificially aged
- T8511 - Solution heat treated, stress-relieved by stretching then artificially aged
- T4 - Solution heat treated and naturally aged to a substantially stable condition
- T6 - Solution heat treated and artificially aged
- T62 - Solution heat treated then artificially aged by the user
- T351 - Solution heat treated then stress relieved by stretching. Equivalent to T4 condition.
- T36 - Solution heat treated then cold worked by a reduction of 6%
- T851 - Solution heat treated then stress relieved by stretching then artificially aged.

SUPPLIED FORMS

Alloy QQ-A-200/3 is supplied in Bar, Rod and Wire

- Bar

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.79 g/cm ³
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

MECHANICAL PROPERTIES

SAE AMS QQ-A-225/6 Bar 12.7mm to 165.1mm	
Property	Value
Proof Stress	310 MIN MPa
Tensile Strength	427 Min MPa
Elongation A50 mm	10 Min %

These Mechanical Properties apply to Bar in the T351 temper in diameters 12.7mm to 165mm

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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