



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



Aluminium Alloy - QQ-A-225/6 T351 Bar

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

Address: Wilsons Ltd
Nordic House
Old Great North Road
Huntingdon
PE28 5XN
Tel: +44 (0)1480 456421
Email: sales@wilsonsmetals.com
Web: www.wilsonsmetals.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.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

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

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.