

## SPECIFICATIONS

Commercial 7075 BARE

A high strength aerospace aluminium alloy with, depending upon temper, Yield Strength of up to 54ksi (370 MPa) and Tensile Strength of up to 67 ksi (460 MPa)

## CHEMICAL COMPOSITION

SAE AMS QQ-A-250/12  
Alloy QQ A 250/12

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-250/12 has similarities to the following standard designations and specifications **but may not be a direct equivalent:**  
AMS 4044, Alloy 7075, UNS A97075

## TEMPER TYPES

Alloy QQ-A-250/12 is supplied in a wide range of tempers:

- O - Soft
- T351 - Solution heat treated then stress relieved by stretching. Equivalent to T4 condition.
- T6 - Solution heat treated and artificially aged
- T62 - Solution heat treated then artificially aged by the user
- T651 - Solution heat treated, stress relieved by stretching then artificially aged
- T6510 - Solution heat treated and stress-relieved by stretching then artificially aged with no straightening after aging
- T73 - Solution heat treated then specially artificially aged for resistance to stress corrosion

## SUPPLIED FORMS

Alloy QQ-A-250/12 is supplied in sheet and plate

- Sheet
- Plate

## GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.71 g/cm <sup>3</sup>
Melting Point	635 °C
Thermal Expansion	23.5 x10 <sup>-6</sup> /K
Modulus of Elasticity	72 GPa
Thermal Conductivity	175 W/m.K
Electrical Resistivity	45.5 % IACS

## MECHANICAL PROPERTIES

SAE AMS QQ-A-250/12  
Sheet  
Up to 12.67mm

Property	Value
Proof Stress	145 Min MPa
Tensile Strength	276 Min MPa
Elongation A50 mm	10 Min %

Mechanical Properties shown are for 'O' temper sheet in thicknesses 0.3mm to 12.6mm

## CONTACT

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

## REVISION HISTORY

Datasheet Updated 03 January 2014

## 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.