

SPECIFICATIONS

Commercial 2024 Clad

A medium to high strength alloy with, dependent upon temper, minimum Proof Stress up to 56 ksi / 385 Mpa and minimum Tensile Strength up to 64 ksi / 440 MPa

CHEMICAL COMPOSITION

SAE AMS QQ A 250/5
Alloy QQ A 250/5

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-250/5 has similarities to the following standard designations and specifications **but may not be a direct equivalent:**

Alloy 2024, UNS A92024, AMS 4040, AMS 4041, AMS 4194, AMS 4195, AMS 4274

TEMPER TYPES

Alloy QQ-A-250/5 is supplied in a wide range of tempers:

- O - Soft
- T3 - Solution heat treated, cold worked and naturally aged
- T361 - Solution heat treated then stress relieved by stretching.
- T4 - Solution heat treated and naturally aged to a substantially stable condition
- T42 - Solution heat treated and naturally aged to a substantially stable condition
- T81 - Solution heat treated, cold worked then artificially aged
- T851 - Solution heat treated then stress relieved by stretching then artificially aged.
- T861

SUPPLIED FORMS

Alloy QQ-A-250/5 is supplied in CLAD plate and sheet

- Plate
- Sheet

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.74 g/cm ³
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

Mechanical Properties shown are for T3 temper

Thickness (mm)	Proof strength (Min)	Tensile Strength (Min)	Elongation % (Min)
Over 0.2 up to & incl. 0.5	269	407	12
Over 0.5 up to & incl. 1.5	269	407	15
Over 1.6 up to & incl. 3.2	276	421	15
Over 3.2 up to & incl. 6.3	276	427	15

CONTACT

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

REVISION HISTORY

Datasheet Updated 17 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.