Aluminium Alloy
QQ-A-250/5 'T3' Sheet

GOULD ALLOYS
THE LEADING EDGE IN METALS

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 naturaly 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/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

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

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REVISION HISTORY

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