



MULTI METALS

BESPOKE ALUMINIUM SOLUTIONS

ALUMINIUM DATA SHEET ALLOY GRADE 5251

Alloy 5251 is a medium strength alloy with good ductility and formability.
5251 is known for rapidly work hardening and is easily weldable.
It is noted for having a high corrosion resistance in marine environments.

The alloy 5251 also corresponds to: **Al Mg2, Al 2.0 Mg 0.3 Mn and N4**
But may not be a direct equivalent in all circumstances or all technical attributes

Fabrication

Weldability - Gas:	Very Good
Weldability - Arc:	Very Good
Weldability - Resistance:	Very Good
Brazability:	Poor
Workability - Cold:	Very Good
Machinability:	Average

Chemical Composition

Element	% Present
Manganese (Mn)	0.10 - 0.50
Iron (Fe)	0.50 Typical
Copper (Cu)	0.15 Typical
Magnesium (Mg)	1.70 - 2.40
Silicon (Si)	0.40 Typical
Zinc (Zn)	0.15 Typical
Chromium (Cr)	0.15 Typical
Titanium (Ti)	0.15 Typical
Aluminium (Al)	Balance

Physical Properties (for guidance only)

Melting Point	625 °C
Thermal Expansion	25 x 10 ⁻⁶ /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	134 W/m.K
Electrical Resistivity	0.044 x 10 ⁻⁶ Ω .m

Note

The data reproduced in this sheet is for information purposes only and should not be used as a substitute for the original ISO standard information.
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