



MULTI METALS

BESPOKE ALUMINIUM SOLUTIONS

ALUMINIUM DATA SHEET ALLOY GRADE 5083

Aluminium 5083 is known for exceptional performance in extreme environments. 5083 is highly resistant to attack by both seawater and chemical environments. The alloy also exhibits excellent strength after welding.

Alloy 5083 also corresponds to specifications: **GM41, A95083, AlMg 4.5 Mn, Al Mg 4.5 Mn 0.7 and N8**
But may not be a direct equivalent in all circumstances or all technical attributes.

Fabrication

Solderability:	Poor
Weldability - Gas:	Average
Weldability - Arc:	Excellent
Weldability - Resistance:	Excellent
Brazability:	Poor
Workability - Cold:	Average
Machinability:	Poor

Chemical Composition

Element	% Present
Manganese (Mn)	0.40 - 1.00
Iron (Fe)	0.40 Typical
Copper (Cu)	0.10 Typical
Magnesium (Mg)	4.00 - 4.90
Silicon (Si)	0.40 Typical
Zinc (Zn)	0.25 Typical
Chromium (Cr)	0.05 - 0.25
Titanium (Ti)	0.15 Typical
Aluminium (Al)	Balance

Physical Properties (for guidance only)

Melting Point	570 °C
Thermal Expansion	25 x 10 ⁻⁶ /K
Modulus of Elasticity	72 GPa
Thermal Conductivity	121 W/m.K
Electrical Resistivity	0.058 x 10 ⁻⁶ Ω .m

Note.

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