

Aluminium Alloy

G.AL C250 Precision Milled Plate



SPECIFICATIONS

Commercial	5083
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G.AL C250 Precision Milled Plate, Alloy 5083 is supplied homogenised and stress relieved in thicknesses from 5mm to 100mm

It is precision milled to a roughness Ra of 0.4 microns and supplied folied on both sides.

CHEMICAL COMPOSITION

G.AL C250 Alloy 5083 Precision Milled Plate	
Element	% Present
Magnesium (Mg)	4.00 - 4.90
Manganese (Mn)	0.40 - 1.00
Iron (Fe)	0.40 max
Silicon (Si)	0.0 - 0.40
Titanium (Ti)	0.05 - 0.25
Chromium (Cr)	0.05 - 0.25
Copper (Cu)	0.10 max
Others (Total)	0.0 - 0.15
Zinc (Zn)	0.0 - 0.10
Other (Each)	0.0 - 0.05
Aluminium (Al)	Balance

SUPPLIED FORMS

- Plate

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.66 g/cm ³
Melting Point	570 °C
Thermal Expansion	23.3 x10 ⁻⁶ /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	110-130 W/m.K
Electrical Resistivity	29-32 % IACS
Heat Capacity	900 J/kgK

MECHANICAL PROPERTIES

G.AL C250 Alloy 5083 G.AL C250 Alloy 5083	
Property	Value
Proof Stress	110-130 MPa
Tensile Strength	230-260 MPa
Hardness Brinell	68-73 HB
Elongation A	10-15 %

TOLERANCES

Thickess (mm)	Flatness Tol (mm)	Thickness Tol (mm)	Width & Length Tol (mm)
5	0.80	+/- 0.1	-0 / +20
6-12.7	0.40	+/- 0.1	-0 / +20
Over 12.7	0.13	+/- 0.1	-0 / +20

CONTACT

Address: Please make contact directly with your local service centre, which can be found via the Locations page of our web site
Web: www.aalco.co.uk

REVISION HISTORY

Datasheet Updated 16 February 2023

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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.

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