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Aluminium 5083 data sheet.

Aluminium 5083 is renowned for its outstanding performance in intense environments. It is highly resistant to corrosion in both seawater and industrial chemical environments.

5083 has the highest strength of the non-heat treatable alloys but it is not recommended for use over 65°C

Alloy 5083 is used in the following applications...

- Rail cars
- Vehicle bodies
- Ship building
- Tip truck bodies
- Mine skips and cages
- Pressure vessels

Aluminium 5083 is available from us in plate in the following sizes...

From a thickness of 4mm - 8"

Chemical & Physical Properties

Typical Chemical Composition

Element	Min %	Max %
Si	0.4	
Fe	0.4	
Cu	0.1	
Mn	0.4	1.0
Mg	4.0	4.9
Zn	0.25	
Ti	0.15	
Cr	0.05	0.25
Al	Balance	

Typical Mechanical Properties

Property/unit	H32	O/H111
Proof Stress 0.2% (Mpa)	240	145
Tensile Strength (Mpa)	330	300
Shear Strength (Mpa)	185	175
Elongation A5 (%)	17	23
Hardness Vickers (HV)	95	75

Tolerances

Tolerance on Thickness (+/-) in mm

Thickness mm	100mm wide	1250mm wide	1500mm wide
6.1 - 8.0	0.24	0.30	0.31
8.1 - 10	0.27	0.33	0.36
10.1 - 12	0.32	0.38	0.40
12.1 - 15	0.36	0.42	0.43
15.1 - 20	0.38	0.44	0.46
21 - 25	0.40	0.46	0.48
26 - 30	0.45	0.50	0.53
31 - 40	0.50	0.55	0.58
41 - 50	0.55	0.60	0.63



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Flatness Tolerances

Thickness	Maxium Deviation Over a 2500mm Length	Maxium Deviation over a 1250mm Width
0.5 – 3.0	10.0mm	5.0mm
3.0 – 6.0	7.5mm	3.75mm

The information given above is based on our current knowledge and is given in good faith; however the company will accept no liability in respect of any third party reliance thereon.