

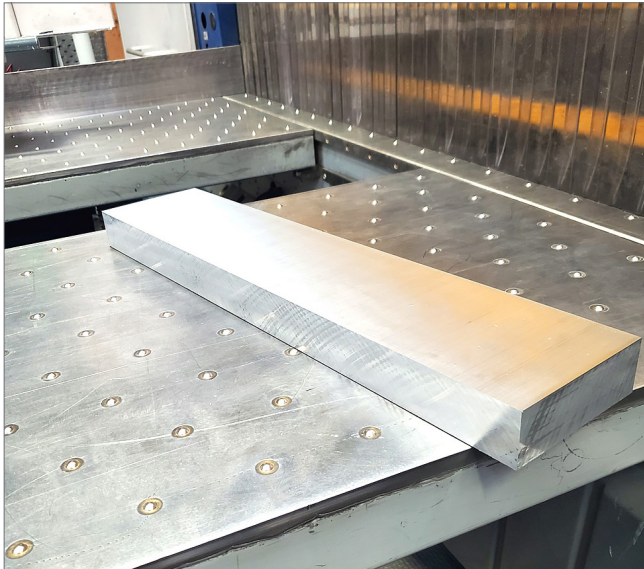


THAMES
STOCKHOLDERS

5083 Aluminium

COMMERCIAL ALUMINIUM ALLOY

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Product Overview

5083 aluminium is a material that offers exceptional performance characteristics in the most extreme environments.

Our stocked product (available in plates and sheets) benefits from superior corrosion resistance in industrial, chemical and seawater environments. It has the highest strength of all non-heat-treatable alloys.

The material also retains excellent strength after welding but is not suitable in temperatures above 65°C.

Material Specifications:

A95083, Al Mg 4.5 Mn 0.7, GM41

* Key Features

- Excellent extreme environment performance
- Exceptional strength after welding
- Highest strength of all non-heat treatable alloys

* Chemical Composition (weight, %)

	Mn	Fe	Cu	Mg	Si	Zn	Cr	Ti	Al
Min.	0.40			4.00			0.05		Bal
Max.	1.00	0.40	0.10	4.90	0.40	0.25	0.25	0.15	Bal

* Properties as per BS EN 573-3

*Mechanical Properties

Tensile Strength	275 - 350 MPa
Elongation A50 mm	13% min
Hardness Brinell	75 HBW (typical)
Proof Stress	125 MPa min

* Properties as per BS EN 485-2, H111 (1.5-3.0mm thickness range)

Applications

- Pressure vessels, shipbuilding
- Vehicle bodies, tipper trucks, mine skips and cages
- Rail cars

Physical Properties

Density	2.65 g/cm ³
Melting Point	570°C
Thermal Expansion	25 x10 ⁻⁶ /K
Modulus of Elasticity	72 GPa
Thermal Conductivity	121 W/m.K

Availability

- Plates & sheets



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