

Aluminium

5083 H32 Sheet & Plate

Datasheet Updated
05 August 2021

SPECIFICATIONS

Commercial	5083 H32
EN	5083 H32

The highest strength non heat treatable marine grade aluminium alloy.

CHEMICAL COMPOSITION

BS EN 573-3
Alloy 5083

Element	% Present
Manganese (Mn)	0.40 - 1.00
Iron (Fe)	0.00 - 0.40
Copper (Cu)	0.00 - 0.10
Magnesium (Mg)	4.00 - 4.90
Silicon (Si)	0.00 - 0.40
Zinc (Zn)	0.00 - 0.25
Chromium (Cr)	0.05 - 0.25
Titanium (Ti)	0.00 - 0.15
Other (Each)	0.00 - 0.05
Others (Total)	0.00 - 0.15
Aluminium (Al)	Balance

ALLOY DESIGNATIONS

Alloy 5083 corresponds to the following standard designations and specifications *but may not be a direct equivalent*:

- GM41
- A95083
- AIMG4.5Mn
- Al Mg4.5 Mn0.7

TEMPER TYPES

The most common tempers for 5083 aluminium are:

- O
- H111
- H32

SUPPLIED FORMS

- Sheet
- Plate

APPLICATIONS

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

CHARACTERISTICS

- Exceptional strength after welding
- Exceptional performance in extreme environments
- Not recommended for use in temperatures above 65°C
- Marine grade aluminium alloy

MECHANICAL PROPERTIES

BS EN 485-2

Sheet 0.2mm to 6.00mm

Property	Value
Proof Stress	215 Min MPa
Tensile Strength	305 - 380 MPa
Hardness Brinell	89 HB

DISCLAIMER

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