

Aluminium

5454 O/H111 Sheet & Plate

Datasheet Updated

11 January 2024

SPECIFICATIONS

Commercial	5454 O H111
EN	5454 O H111

Medium-high strength alloy highly resistant to corrosion and good formability.

CHEMICAL COMPOSITION

BS EN 573-3

Alloy 5454

Element	% Present
Manganese (Mn)	0.50 - 1.00
Iron (Fe)	0.00 - 0.40
Magnesium (Mg)	2.40 - 3.00
Silicon (Si)	0.00 - 0.25
Chromium (Cr)	0.05 - 0.20
Titanium (Ti)	0.00 - 0.20
Zinc (Zn)	0.00 - 0.25
Copper (Cu)	0.00 - 0.10
Other (Each)	0.00 - 0.05
Others (Total)	0.00 - 0.15
Aluminium (Al)	Balance

ALLOY DESIGNATIONS

Alloy 5454 corresponds to the following standard designations and specifications *but may not be a direct equivalent*:

- A5454
- ISO Al Mg3Mn
- Al 2.7Mg 0.8Mn Cr

TEMPER TYPES

The most common tempers for 5454 aluminium are shown below:

- H22
- O
- H111
- H32

SUPPLIED FORMS

Alloy 5454 is supplied in most forms but is not suitable for fine or complex extrusions.

- Bar
- Treadplate/Patterned Sheet
- Wire
- Tube
- Sheet
- Plate

APPLICATIONS

- Road transport body-building
- Chemical and process plant equipment
- Pressure vessels, containers, boilers
- Cryogenics
- Marine & off-shore
- Pylons, poles & masts

CHARACTERISTICS

- Medium to high strength
- Strengthened by cold working
- Similar to alloy 5754 with good strength in the temperature range 65 to 170 degrees centigrade.
- High fatigue strength.
- It is not suitable for complex or fine extrusions.
- Good formability in softer tempers
- Good weldability

MECHANICAL PROPERTIES

BS EN 485-2

Sheet 0.2mm to 6.0mm

Property	Value
Proof Stress	85 Min MPa
Tensile Strength	215 - 275 MPa
Hardness Brinell	58 HB

DISCLAIMER

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