

# ALUMINIUM

## 5754 - H111



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Aluminium alloy 5754 is a non-heat treatable alloy known for its excellent corrosion resistance, good weldability and strength compared to other 5000-series alloys. While it's not the strongest alloy, it provides adequate strength for many applications while retaining flexibility. The 'H111' refers to its temper designation, indicating that the metal has been strain-hardened only to the point of providing it with the desired level of strength after forming.

#### KEY FEATURES

- Excellent weldability with all methods
- Excellent resistance to seawater
- Excellent corrosion resistance
- Good formability
- Suitable for complex shapes

#### CHEMICAL PROPERTIES

Magnesium (Mg)	Manganese (Mn)	Silicone (Si)	Iron (Fe)	Chromium (Cr)	Zinc (Zn)	Copper (Cu)	Aluminium (Al)
2.6-3.6%	0.5%	0.4%	0.4%	0.3%	0.2%	0.1%	rest

#### MECHANICAL PROPERTIES

Tensile strength (N/mm <sup>2</sup> )	220-250
Yield strength (N/mm <sup>2</sup> )	80-130
Elongation (% at break)	12-20
Proof stress (MPa)	185-245
Hardness - Brinell (HB) max	60

#### PHYSICAL PROPERTIES

Density (kg/m <sup>3</sup> )	267	
Modulus of elasticity (Gpa)	70	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	23.5
	0-350°C (µm/m/°C)	24.7
	0-538°C (µm/m/°C)	25.6
Thermal conductivity	at 100°C (W/m.K)	135
	at 500°C (W/m.K)	155
Specific Heat 0-100°C (J/kg.K)	88	
Electrical conductivity (IACS %)	31-33	
Melting point (°C)	625	

#### MARKET SECTORS



##### Marine Equipment

Hulls, decks, superstructures



##### Automotive Industry

Body panels, chassis parts, suspension components



##### Parts & Components

Machinery, equipment, vessels, containers, tanks



##### Food & Beverage Industry

Processing equipment, containers, storage tanks



##### Construction & Architecture

Roofing, cladding, facades, curtain wall systems



##### Oil & Gas Industry

Platforms, gangways, components