

Alloy Specification Sheet – 5754



Alloy 5754 is a high strength alloy with excellent corrosion resistance, especially to seawater and industrially polluted atmospheres.

Element	% Present
Silicon	0.4
Iron	0.4
Manganese	0.5
Magnesium	2.6 to 3.2
Aluminium	Balance

This alloy has a higher strength than 5251 which makes this alloy particularly suited to flooring applications.

Mechanical Property	H22	H24	H26	O/H111
Proof Stress 0.2% (Mpa)	185	215	245	100
Tensile Strength (Mpa)	245	270	290	215
Shear Strength (Mpa)	150	160	170	140
Elongation A5 (%)	15	14	10	25
Hardness Vickers (HV)	75	80	85	55

Physical Property	Value
Density	2.66 g/cm ³
Melting Point	600°C
Modulus of Elasticity	68 GPa
Electrical Resistivity	0.049 x 10 ⁻⁶ Ωm
Thermal Conductivity	147 W/mK
Thermal Expansion	24 x 10 ⁻⁶ / K

Fabrication Process	Rating
Workability – Cold	Very Good
Machinability	Average
Weldability – Gas	Excellent
Weldability –Arc	Excellent
Weldability –Resistance	Excellent
Brazability	Poor
Solderability	-

Alloy 5754 is most commonly supplied in plate form with a H111 temper – some work hardening by the shaping process, but less than required for H11 temper.

Applications:-

- Treadplate
- Shipbuilding
 - Rivets
- Food Processing
- Welded Chemical & Nuclear Structures

