



Aluminium 5754 / 3.3535 / Al-Mg3

Alternative Designations

EN AW-5754 / AlMg3 | A-G3M (AFNOR) | AA5754 (AISI/AA) | A95754 (UNS) | 4130 (SIS) | L-3390 (UNE)

Key Features

Weldability • Corrosion resistance • Non-heat treatable • Suitable for marine applications

Description

This material has very high mechanical properties when compared to other non-heat treatable aluminum alloys. In addition, it comes with good resistance to atmospheric and seawater corrosion. It has excellent welding characteristics and can be welded using all standard welding methods. It can also be cold formed and forged. It is a non-heat treatable alloy. It can be precipitation hardened to high strength levels by cold working. It has good ductility and formability.

Mechanical Properties

| | |
|----------------------|---------------|
| Yield strength | 80 MPa |
| Tensile strength | 180 – 250 MPa |
| Elongation at break | 14 – 16% |
| Hardness | 45 |
| Module of elasticity | 70.5 GPa |

Physical Properties

| | |
|----------------------------------|---|
| Density | 2.66 g/cm ³ |
| Electrical conductivity | 18.797 m/Ω · mm ² |
| Coefficient of thermal expansion | 23.9 K ⁻¹ · 10 ⁻⁶ |
| Thermal conductivity | 140 – 160 W/m · K |
| Specific heat capacity | 900 J/kg · K |

Chemical Composition

| | | | |
|----|------------|----|---------|
| Al | Rest is Al | N | - |
| Bi | - | Nb | - |
| C | - | Ni | - |
| Cd | - | O | - |
| Co | - | P | - |
| Cr | ≤ 0.30% | Pb | - |
| Cu | ≤ 0.10% | S | - |
| Fe | ≤ 0.40% | Si | ≤ 0.40% |
| H | - | Sn | - |
| Mg | 2.6 – 3.6% | Ti | ≤ 0.15% |
| Mn | ≤ 0.50% | V | - |
| Mo | - | Zn | ≤ 0.20% |

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.