

Aluminium 5052 / 3.3523 / Al-Mg2.5

Alternative Designations

EN AW-5052 | Al-Mg2,5 (ISO) | AA5052 (ANSI/AA) | L80/L81 (BS) | A-G2,5C (AFNOR) | A-G2,5C (UNE) | A95052 (UNS) | A5052 (JIS) | GR20(57S) (CSA) | 4120 (SIS)

Key Features

High fatigue strength • Weldability • Resistant against corrosion • Good workability

Description

Aluminium 5052 / 3.3523 is an aluminium alloy with magnesium as the primary alloying element. It is strong, has good corrosion resistance and good weldability. It is suitable for a wide variety of applications, including marine, chemical and food processing, as well as general engineering applications. The alloy has good workability and is readily weldable using TIG or MIG methods.

Mechanical Properties

Yield strength	66 – 221 MPa
Tensile strength	173 – 269 MPa
Elongation at break	2 – 19%
Hardness	45 – 77
Module of elasticity	70 GPa

Physical Properties

Density	2.68 g/cm ³
Electrical conductivity	20 – 67 MS/m
Coefficient of thermal expansion	23.7 K ⁻¹ · 10 ⁻⁶
Thermal conductivity	201 W/m · K

Chemical Composition

Al	Rest is Al	N	-
Bi	-	Nb	-
C	-	Ni	-
Cd	-	O	-
Co	-	P	-
Cr	0.15 – 0.35%	Pb	-
Cu	0.1%	S	-
Fe	0.4%	Si	0.25%
H	-	Sn	-
Mg	2.2 – 2.8%	Ti	-
Mn	0.1%	V	-
Mo	-	Zn	0.1%

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.