Xometry

Datasheet

Aluminum Alloy 5052

Alternative Designations

EN AW-5052 | AI-Mg2,5 (ISO) | AA5052 (ANSI/AA) | L80/L81 (BS) | A-G2,5C (AFNOR) | A-G2,5C (UNE)| A95052 (UNS) | A5052 (IS) | 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.

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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%