

Aluminium 5052 contains nominally 2.5% magnesium & 0.25% chromium. It has good workability, medium static strength, high fatigue strength, good weldability, and very good corrosion resistance, especially in marine atmospheres. It also has the low density and excellent thermal conductivity common to all aluminium alloys. It is commonly used in sheet, plate and tube form.

Chemical Composition

Element	Maximum Unless Range is Specified
Silicon	.25
Iron	.40
Copper	.10
Manganese	.10
Chromium	.15-.35
Zinc	.10
Magnesium	2.2-2.8
Others Each	.05
Others Total	.15
Aluminum	Balance

Physical Properties

Property	Maximum Unless Range is Specified
Density kg/m3	2680
Thermal Conductivity ,W/m C	138
Electrical Resistivity, micro-ohm.m	0.050
Electrical Resistivity, equal volume	35% IACS
Electrical Resistivity, equal weight	116% IACS
Melting Point (Deg C)	607-650
Modules of Elasticity in Tension GPa	69.3
Modules of elasticity in Torsion GPa	25.9
Modules of elasticity in Compression GPa	70.7

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength MPa	170-215
Tensile Yield Strength MPa	65
Elongation at Break	14%-20%

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.