

Key Features

- Good workability
- Excellent corrosion resistance
- High fatigue strength
- High weldability
- moderate strength

Common Applications

- Aircraft fuel/oil lines
- Fuel tanks
- Transportation areas
- Sheet metal work
- Lighting, wire, and rivets

Material Description

Aluminum 5052 is a non-heat treatable alloy renowned for its excellent corrosion resistance and formability. Composed mainly of aluminum, it also contains magnesium and chromium as alloying elements, which enhance its strength and machinability. Aluminum 5052 is commonly used in various applications such as marine components, automotive parts, and architectural structures due to its high resistance to saltwater corrosion, making it ideal for coastal regions. It is also favored in sheet metal fabrication for its ease of forming and welding. With its combination of lightweight properties and durability, Aluminum 5052 is a versatile alloy suitable for a wide range of industries and applications.

Chemical Composition (%)

	Al	Cr	Cu	Fe	Mg	Mn	Si	Zn			
Min.	95.7	0.15			2.2						
Max.	97.7	0.35	0.10	0.40	2.8	0.10	0.25	0.10			

Mechanical Properties

Ultimate Tensile Strength	28,000 PSI
Tensile Yield Strength	13,000 PSI
Hardness	Brinell 47
Elongation at Break	30%

Physical Properties

Density	0.0968 lb/in ³ (2.68 g/cm ³)
Thermal Conductivity	138W/m.K
Modulus of elasticity	10,200 KSI (70.3 GPa)
Melting Point	1,125 - 1,200°F (607.2 - 649 °C)

Technical Assistance

Our knowledgeable staff, supported by our in-house team of expert metallurgists and engineers, is ready to assist you with any technical inquiries.

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InstaVoxel's quality control system is ISO-9001 certified, and all our partners hold relevant certifications.



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