

Key Features

- Medium strength alloy
- Used in intricate extrusions
- Aesthetically pleasing finish
- High corrosion resistance
- 6063-T4 has good formability

Common Applications

- Pipe
- Railings
- Furniture
- Architectural extrusions
- Irrigation pipes

Material Description

Aluminum 6063 is a widely used alloy known for its excellent extrudability, formability, and surface finish. Composed primarily of aluminum, it contains small amounts of magnesium and silicon, which enhance its strength and corrosion resistance. Aluminum 6063 is commonly used in architectural and construction applications, such as window frames, door frames, and curtain walls, due to its attractive appearance and ease of fabrication. It is also utilized in various industrial applications, including automotive components, electrical enclosures, and furniture, thanks to its good formability and weldability.

Chemical Composition (%)

	Al	Cr	Cu	Fe	Mg	Mn	Si	Ti	Zn		
Min.					0.45		0.20				
Max.	97.5	0.10	0.10	0.35	0.90	0.10	0.6	0.10	0.10		

Mechanical Properties

Ultimate Tensile Strength	13,000 PSI
Tensile Yield Strength	7,000 PSI
Hardness	Brinell 25
Elongation at Break	27%

Physical Properties

Density	0.0975 lb/in ³ (2.70 g/cm ³)
Thermal Conductivity	218W/m.K
Modulus of elasticity	10,000 KSI (68.9 GPa)
Melting Point	1,140 – 1,210°F (616 – 654 °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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