

## 1060 Aluminum Alloy Overview

1060 aluminum alloy is a widely used industrial material known for its excellent electrical and thermal conductivity, as well as its high corrosion resistance. This alloy belongs to the non-heat-treatable series, making it a favorable choice for applications where formability and workability are essential.

### **Chemical Composition**

• Aluminum (AI): 99.60% minimum

# **Physical Properties**

Density: 2.70 g/cm³ (0.0975 lb/in³)
Melting Point: 660.3°C (1220.5°F)

### **Mechanical Properties**

Tensile Strength: 110-136 MPa (16,000-20,000 psi)
Yield Strength: 83-103 MPa (12,000-15,000 psi)

• Elongation: 5-30%

Modulus of Elasticity: 69 GPa (10,000 ksi)

Brinell Hardness: 30 HB

## **Applications**

- 1. 1060 aluminum alloy finds its application in various industries due to its remarkable characteristics. Some common application areas include:
- 2. Electrical Industry: Thanks to its excellent electrical conductivity, 1060 alloy is widely used in electrical cables, transformers, and capacitors.
- 3. Reflectors and Lighting Fixtures: The high reflectivity of 1060 aluminum makes it suitable for reflectors and lighting fixtures.
- 4. Chemical Equipment: Its corrosion resistance makes it suitable for chemical equipment and storage tanks.
- 5. Heat Exchangers: Its thermal conductivity makes it useful in heat exchangers for cooling and heating applications.
- 6. Nameplates and Labels: The alloy's easy formability makes it a choice for nameplates, labels, and decorative purposes.
- 7. Cookware: 1060 aluminum alloy is used in cookware due to its corrosion resistance and thermal conductivity.
- 8. Radiators: Its good thermal conductivity and formability are advantageous in the production of radiators.

1060 aluminum alloy is prized for its versatility and utility across various industries. Its exceptional electrical conductivity, corrosion resistance, and formability make it an essential material for a wide range of



applications, from electrical cables to heat exchangers and cookware. Its non-heat-treatable nature makes it a favorable choice for applications where malleability and ease of processing are key factors.

