

Aluminum

Series	Alloyed Elements	Properties	Popular Uses
1000	n/a Min. 99% Pure Al	High corrosion resistance, thermal conductivity, electrical conductivity, low mechanical properties and excellent workability.	Foil, food packaging, chemical & liquid containment, electronics components, wire.
2000	Copper (Cu)	Known as "hard alloys" because copper adds a significant increase in strength. Copper also can decrease ductility and corrosion resistance, and increase the risk of cracking. Difficult to weld.	Welding filler, wire, screws, valves, watch parts, gears.
3000	Manganese (Mn)	Manganese adds strength while maintaining formability and corrosion resistance. Cannot not be heat treated. Suitable for anodizing and welding.	Chemical and liquid containment, cooking utensils, foot processing parts.
4000	Silicon (Si)	Reduced thermal expansion, lower melting point, good corrosion resistance, poor machinability.	Castings, welding wires, panels, extruded elements.
5000	Magnesium (Mg)	Moderate to high strength, can not be heat treated, weldable and excellent corrosion resistance.	Marine applications, screens, nails, rivets, hardware, signage.
6000	Magnesium (Mg) Silicon (Si)	Moderate strength and corrosion resistance, can be heat treated, weldable, extrudable and can be anodized.	Aerospace, marine, storage tanks, prototype parts, body panels.
7000	Zinc (Zn)	Highest strength of all aluminum alloys, can be heat treated, reduced corrosion resistance.	Aerospace, structural.

