

# CNC Aluminum Alloys

SUITABLE FOR CNC MACHINING



## MATERIAL NAME

CNC Aluminum Alloys

## COLOR

Natural Aluminum

## PROCESS

CNC

## PRODUCT DESCRIPTION

CNC-machined Aluminum Alloys are widely used across various industries due to their lightweight, high strength, corrosion resistance, and excellent machinability. These alloys offer superior mechanical properties while maintaining cost-effectiveness, making them an ideal choice for aerospace, automotive, electronics, and industrial applications.

## TYPICAL APPLICATIONS

- Aerospace brackets and fittings
- Automobile parts
- Industrial machinery and equipment
- Ship and hull

## PRODUCT SAFETY

- Metal dust generated during CNC machining should be controlled through appropriate ventilation and protective measures to avoid inhalation.
- Use safety goggles, gloves and a dust mask during processing to prevent fine metal particles and sharp edges.

## PRODUCT DELIVERY & WAREHOUSING

- **STORAGE**

Store in a dry, ventilated environment, avoiding moisture and exposure to corrosive chemicals. Apply protective coatings to prevent oxidation or corrosion of metal surfaces.

- **USAGE AND HANDLING**

Remove burrs and residual materials from the product. Use protective equipment like gloves when handling. Avoid using the product in extreme environments or high-load scenarios; regularly inspect for mechanical performance.

- **CHEMICAL COMPATIBILITY**

Avoid contact with strong acids, alkalis, or corrosive solvents. Use appropriate cleaning and maintenance solutions.

Assess risks of oxidation, corrosion, or magnetic effects based on specific application environments.

## MATERIALS WE SUPPORT:

ASTM	DIN	GB	Density (g/cm <sup>3</sup> )	Hardness	Tensile Strength, Yield(Mpa)	Fatigue Strength (Mpa)	Elongation at Break(%)
2017	AlCuMg1	2A11&LY112	2.8	120~150 HB	215~355	150~250	12~17
2024	AlCuMg2	A12&LY12	2.78	120~150 HB	470~520	180~200	10~15
5052	AlMg2.5	5A02&LF2	2.68	60 HB	193	115	12
5083	AlMg4.5Mn 3.3547	5083&LF4	2.68	60~75 HB	310~420	130~190	12~18
6061	AlMg1SiCu 3.3206	6061&LD30	2.7	60~95 HB	240	100	12~17
6063	AlMgSi0.5	6063&LD31	2.7	50~80 HB	145	80	10~15
6082	3.2315 ①	/	2.71	95~110 HB	320~430	150~250	8~12
7075	AlZnMgCu1.5	7A09&LC9	2.8	150~180 HB	505	200	11~13

**Tips:** Want to explore a wider range of materials? Check out <https://www.unionfab.com/materials>

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