# Aluminum 7050 | EN AW-7050 | 3.4144| AlZn6CuMgZr

Aluminum 7050 provides high strength and toughness for aerospace structures.

## Mechanical properties

| | |
|---|---|
| Ultimate tensile strength | 470-530 MPa |
| Yield strength | 390-460 MPa |
| Young's modulus (modulus of elasticity) | 70 - 80 GPa |
| Elongation at break | 5-12 % |

## Physical properties

| | |
|---|---|
| Corrosion resistance | Good |
| Magnetism | Non-magnetic |
| Weldability | Poor |

## Thermal properties

| | |
|---|---|
| Thermal expansion coefficent | 23 - 25.4 10^-6/ºC |
| Thermal conductivity | 153 W/(m·°C) |

## Electrical properties

| | |
|---|---|
| Electrical resistivity | 4.4 µΩ*cm |

## Post treatments

| | |
|---|---|
| Post-Processing | Cold working, Aging, Hardening |
| Anodizing compatibility | Not recommended - due to the high amount of zinc that the material contains, dark spots or corroded marks may be observed |

## Common applications

| | |
|---|---|
| Fuselage frames | |
| Bulkheads | |
| Wing skins | |
| Aerospace structures | |
| Commercial & military aircraft applications | |

**Aluminum 7050 CNC Machining Applications & Parts**

Aluminum 7050 is a high-strength alloy developed for thick-section applications. It offers superior stress corrosion cracking resistance and high toughness, making it a staple in the aerospace sector.

**Typical Parts We Machine from 7050:**

- **Aerospace Forgings:** Bulkheads, wing spars, fuselage frames, landing gear supports, helicopter rotor hubs
- **Military Applications:** Armored vehicle components, weapon system structures

**Our Machining Advantage:**

Our machining processes are optimized for the tough microstructure of 7050, allowing us to produce large, complex components from forgings and thick plate with exceptional dimensional accuracy and material integrity.

**Get an Instant Quote for your custom Aluminum 7050 parts today.**