Aluminum 7075-T6 | 3.4365 | 76528 | AlZn5,5MgCu

Aluminum 7075-T6 offers very high strength for demanding aerospace and mold parts.

Mechanical properties

Ultimate tensile strength	520-560 MPa
Yield strength	460-470 MPa
Young's modulus (modulus of elasticity)	69 - 76 GPa
Elongation at break	6-9 %

Physical properties

Corrosion resistance	Moderate
Magnetism	Non-magnetic
Weldability	Poor

Thermal properties

Maximum service temperature	100 °C
Thermal expansion coefficent	22,9 - 24,1 10^-6/ºC
Thermal conductivity	131 - 137 W/(m·°C)

Electrical properties

Electrical resistivity	5,2 µΩ*cm

Post treatments

Post-Processing	Annealing & Cold working
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

Transportation	
Marine	
Aircraft and aerospace	

Aluminum 7075-T6 CNC Machining Applications & Parts

Aluminum 7075-T6 is one of the highest strength aluminum alloys available, offering strength comparable to many steels. It is ideally suited for high-stress structural applications in aerospace and military industries where weight savings are critical.

Typical Parts We Machine from 7075-T6:

- **Aerospace Structures:** Aircraft fuselage frames, wing spars, landing gear components, missile parts
- **High-Performance Automotive:** Gearbox cases, suspension components, drive shafts, racing brake calipers
- **Defense & Robotics:** Weapon mounts, drone armatures, robotic end-effectors, long-range housing
- **Sporting Goods:** Bicycle crank arms, mountain climbing gear, baseball bats, archery components

Our Machining Advantage:

We employ rigid machining setups and specialized tooling to effectively machine this high-strength alloy, achieving precise tolerances and excellent surface integrity for critical applications.

Get an Instant Quote for your custom Aluminum 7075-T6 parts today.