



Alloy 7075 by Metals Trading Company

conforming to EU directives: 2000/53/CE (ELV) - 2011/65/EU (RoHS II)

Color code EU **VIOLET**

PRODUCTION PROGRAM			
Unit:mm			
Drawn	10 ÷ 65	10 ÷ 36	20 ÷ 36
Extruded	20 ÷ 120	20 ÷ 36	20 ÷ 36

Alloy 7075 has the highest strength of all aluminum machine alloys and high resistance to fatigue. Moreover, it has good resistance to corrosion and attitude to hard, protective and decorative anodizing.

Main applications: Due to its very high strength, alloy 7075 is used for highly stressed structural parts for mechanical industry, aviation defense, motorbike and automotive.

Applications include aircraft fittings, gears and shafts and various other commercial aircraft, aerospace and defense equipment.

CHEMICAL COMPOSITION

Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Zr+Ti	Pb	Bi	Other	Al
≤0.4	≤0.5	1.2+2	≤0.3	2.1+2.9	0.18+0.20		5.1+6.1	≤0.2			Each 0.05 Total 0.15	Remainder

PHYSICAL PROPERTIES

Density	$\frac{\text{Kg}}{\text{dm}^3}$	2.8
Modules of elasticity	MPa	72.000
Coefficient of thermal expansion	$\frac{\times 10^{-6}}{^{\circ}\text{C}}$	23.5
Thermal conductivity at 20°C	$\frac{\text{W}}{\text{mk}}$	130
Typical electrical resistivity at 20°C	$\frac{\Omega\text{mm}^2}{\text{m}}$	0.052

MECHANICAL PROPERTIES

	Temper	Diam mm	Rm Mpa	Rp Mpa	A%	HBW Typical
Drawn	T6	≤80	540	485	7	150
	T651	≤80	540	485	5	150
	T73	≤80	455	385	10	135
	T7351	≤80	455	385	8	135
Extruded	T6,T6510,,T6511	≤100	560	500	7	150
	T6,T6510,T6511	100<D≤150	550	440	5	150
	T6,T6510,T6511	150<D≤200	440	400	5	150
	T73,T73510,T73511	≤75	475	405	7	135
	T73,T73510,T7351	75<D≤100	470	390	6	135
	T73,T73510,T7351	100<D≤150	440	360	6	135

PROPERTIES	T6			
Mechinability				
Protective anodizing				
Decorative anodizing				
Hard anodizing				
Resistance to atmospheric corrosion				
Resistance to marine corrosion				
MIG-TIG weldability				
At resistance weldability				
Brazing weldability				
Plastic formability when cold				
Plastic formability when hot				

Legend

Excellent

Good

Acceptable

Not recommended



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