Alloy 2024 by Alu Holding

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

Color code EU **ORANGE**

PRODUCTION PROGRAM

Unit:mm	●	⬢	■
Drawn	10 ÷ 65	10 ÷ 36	20 ÷ 36
Extruded	20 ÷ 120	20 ÷ 36	20 ÷ 36

Alloy 2024 has high mechanical properties and excellent resistance to fatigue. During machining, it creates quite long chips, therefore it is not well suited for automatic lathes. Alloy 2024 offers excellent toughness at moderately high strength levels. With good strength and fatigue resistance, and improved fracture toughness, the alloy is specified by the aerospace sector and the military. Also aluminum 2024 alloy is used in the manufacture of rivets,conectors,hydraulic valve and scientific instruments.Main applications:screws, bolts, nuts, threaded bars.

CHEMICAL COMPOSITION

Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Pb	Bi	Other	Al
≤0.50	≤0.50	3.8÷4.9	0.3÷0.9	1.2÷1.8	≤0.10		≤0.25	≤0.15			Each 0.05 Total 0.15	Remainder

PHYSICAL PROPERTIES

Density	$\frac{Kg}{dm3}$	2.79
Modules of elasticity	MPa	70.000
Coefficient of thermal expansion	$\frac{x10^{-6}}{°C}$	23.1
Thermal conductivity at 20°C	$\frac{W}{mk}$	120
Typical electrical resistivity at 20°C	$\frac{\Omega mm^2}{m}$	0.057

MECHANICAL PROPERTIES

	Temper	Diam mm	Rm Mpa	Rp Mpa	A%	HBW Tipical
Drawn	T3	10<D≤50	425	290	9	120
	T351	≤80	425	310	8	120
	T6	≤80	425	315	5	125
	T651	≤80	425	315	4	125
	T8	≤80	455	400	4	130
	T851	≤80	455	400	2	130
Extruded	T3,T3510,T3511	≤50	450	310	8	120
	T3,T3510,T3511	50<D≤100	440	300	8	120
	T3,T3510,T3511	100<D≤200	420	280	8	120
	T3,T3510,T3511	200<D≤250	400	270	8	120
	T8,T8510,T8511	≤150	455	380	5	120

PROPERTIES	T3
Mechinability	●●
Protective anodizing	●●
Decoratice anodizing	●
Hard anodizing	●
Resistance to atmospheric corrosion	●●
Resistance to marine corrosion	●
MIG-TIG weldability	●●
At resistance weldability	●●●
Brazing weldability	●
Plastic farmability when cold	●
Plastic farmability when hot	●●

Legend

●●●●●	●●●○○	●●○○○	●○○○○
Excellent	Good	Acceptable	Not recommended

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