

Aluminium Alloy 2024 (EN AW 2024 AlCu4Mg1)
 According to EU directives: 2000/53/CE (ELV) - 2011/65/CE (RoHS II)

- Aluminium-copper alloy.
- This alloy is used in aeronautics with good machinability excellent to sustain effort and high temperature.

		DIAMETER			
		≤ 50	50 ≤ 100	100 ≤ 200	200 ≤ 250
		T3	T3	T3	T3
Physical Properties					
Mechanical Properties					
Ultimate tensile strenght Rm[N/mm ²]	minimal	450	440	420	400
Yield strenght Rp 0,2	minimal	310	300	280	270
Elongation A ₅	minimal	8	8	8	8
Hardness Brinell HB (information only)	minimal	120	120	120	120
Physical properties					
Density [kg/dm ³]		2,78	2,78	2,78	2,78
Module of elasticity [Gpa]		72	72	72	72
Electrical conductivity at 20 °C [m/Ω-mm ²]		57	57	57	57
Coefficient of thermal expansion [10 ⁻⁶ /K]		23,1	23,1	23,1	23,1
Thermal conductivity [w/m.K]		121	121	121	121
Melting point range °C		500 ÷ 640	500 ÷ 640	500 ÷ 640	500 ÷ 640
Processing Characteristics					
Machinability		++++	++++	++++	++++
Dimensional Stability		++++	++++	++++	++++
Erodability		++++	++++	++++	++++
Weldability		+	+	+	+
Polishability		+++++	+++++	+++++	+++++
Anodizing Decorative		+++	+++	+++	+++
Anodizing Hard		+	+	+	+
Corrosion resistance (weather)		+++	+++	+++	+++
Corrosion resistance (seawater)		+	+	+	+

Legend - Processing Characteristics

Excellent +++++ Good ++++ Accettable +++ Mediocre ++ Inadequate + Not suitable -

CHEMICAL COMPOSITION														
DENOMINATION	Si	Fe	Mn	Mg	Cu	Zn	Cr	Ti	Ni	Pb	Bi	Sn	IMPURITY	ALUMINIUM
2024	≤0,50	≤0,50	0,30-0,90	1,20-1,80	3,80-4,90	≤0,25	≤0,10	≤0,15					0,05	0,15 remainder