

Aluminium Alloy 2011 (EN AW 2011 AlCu6BiPb)

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

- Aluminium-copper alloy.
- Ideal alloy for automatic lathe it doesn't wear the tools, high mechanical strength and excellent machinability.
- It can be decorative anodized.

		DIAMETER			
		≤ 40	40 ≤ 50	50 ≤ 80	≤ 80
		T3	T3	T3	T8
Physical Properties					
Mechanical Properties					
Ultimate tensile strength Rm [N/mm ²]	minimal	320	300	280	370
Yield strength Rp 0,2	minimal	270	250	210	270
Elongation A _s	minimal	10	10	10	8
Hardness Brinell HB (information only)	minimal	90	90	90	115
Physical properties					
Density [kg/dm ³]		2,83	2,83	2,83	2,83
Module of elasticity [Gpa]		70	70	70	70
Electrical conductivity at 20 °C [m/Ω-mm ²]		37	37	37	37
Coefficient of thermal expansion [10 ⁻⁶ /K]		22,9	22,9	22,9	22,9
Thermal conductivity [w/m.K]		151	151	151	171
Melting point range °C		540 ÷ 645	540 ÷ 645	540 ÷ 645	540 ÷ 645
Processing Characteristics					
Machinability		+++++	+++++	+++++	+++++
Dimensional Stability		++++	++++	++++	++++
Erodability		++++	++++	++++	++++
Weldability		-	-	-	-
Polishability		+++	+++	+++	+++
Anodizing Decorative		+++	+++	+++	+++
Anodizing Hard		-	-	-	-
Corrosion resistance (weather)		+++	+++	+++	+++
Corrosion resistance (seawater)		-	-	-	-

Legend - Processing Characteristics

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

CHEMICAL COMPOSITION														
DENOMINATION	Si	Fe	Mn	Mg	Cu	Zn	Cr	Ti	Ni	Pb	Bi	Sn	IMPURITY	ALUMINIUM
2011	≤0,40	≤0,70			5,00-6,00	≤0,30				0,20-0,40	0,20-0,60		0,05	0,15 remainder