AIROLDI METALLI SPA

product sheet

ALLOY 2011

SQUARE · HEXAGONAL · FLAT DRAWN BARS

COLOUR CODE

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 tolls, high mechanical stenghtness and excellent machinability.
- It can be decorative anodized.

		KEY/THICKNESS			
		≤ 40	40 < S ≤ 50	50 < S ≤ 80	≤ 80
Physical Properties		**T3**	**T3**	**T3**	**T8**
Mechanical Properties					
Ultimate tensile strenght Rm[N/mm²]	minimal	320	300	280	370
Yield strenght Rp 0,2	minimal	270	250	210	270
Elongation A_5	minimal	8	-	-	6
Hardness Brinnel HB (information only)	minimal	90	90	90	115
Physical properties					
Density [kg/dm³]		2,83	2,83	2,83	2,83
Module of elasticity [Gpa]		70	70	70	70
Electrical conductivity at 20 °C [m/Ω-mm²]		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 (seaweather)		-	-	-	-

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
2011	≤0,40	≤0,70			5,00-6,00	≤0,30				0,20-0,40	0,20-0,60		0,05	0,15	remainder

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