



SERIES 2000 ●

# AW 2011 (Al Cu6BiPb)

This alloy is the most often selected for high speed automatic lathes. 2011 alloy, having a lead content (Pb) registered between 0.2-0.6% will not comply with to produce final parts according to directive RoHS, 18/05/2021, and subject to specific authorization for REACH compliance (PB ≤ 0.1%).

## CHEMICAL COMPOSITION (WEIGHT %) (EN 573 - 3)

ELEMENTS	Si	Fe	Cu	Pb	Bi	Cr	Zn	Ti	Al
Minimum	-	-	5	0.2	0.2	-	-	-	-
Maximum	0.4	0.7	6	0.6	0.6	-	0.30	-	Rest

## MECHANICAL PROPERTIES (EN 754 - 2)

CALIBRATED

TEMPER	DIAMETER (mm)	Rm* (MPa)	Rp0.2* (MPa)	A* (%)	HB - BRINELL HARDNESS
T3	≤ 40	320	270	10	90
T3	40 - ≤ 50	300	250	10	90
T3	50 - ≤ 80	280	210	10	90

\*Minimum values

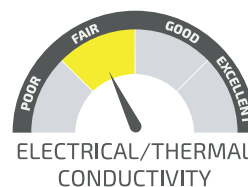


### MAIN CHARACTERISTICS

- Easy machining
- Less stress cutting than most alloys
- Extended life of cutting tools
- Very fine scrap
- High mechanical properties
- Possibility of anodizing finished parts in different colours

### APPLICATIONS

- Screws
- Nuts
- Threads
- Threaded rods





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## PHYSICAL PROPERTIES

DENSITY	2.83 g/cm <sup>3</sup>
MODULUS OF ELASTICITY	70 000 MPa
LINEAR EXPANSION COEFFICIENT	22.9 10 <sup>-6</sup> K <sup>-1</sup>
THERMAL CONDUCTIVITY	151 W/mK
ELECTRICAL CONDUCTIVITY	53 - 49 MS/m



PROPERTIES	T3/T6
MACHINABILITY	EXCELLENT
PROTECTIVE ANODIZING	FAIR
DECORATIVE ANODIZING	POOR
HARD ANODIZING	POOR
RESISTANCE TO ATMOSPHERIC CORROSION	FAIR
RESISTANCE TO MARITIME CORROSION	POOR
MIG-TIG WELDABILITY	POOR
RESISTANCE TO WELDABILITY	FAIR
ABRASIVE WELDABILITY	POOR
COLD PLASTIC FORMABILITY	FAIR
HOT PLASTIC FORMABILITY	FAIR

## DELIVERY PROGRAM

### ROUND RODS

DIAMETER <sup>1</sup> CALIBRATED h9	WEIGHT (kg/m)	STOCK T3
Standard length 3000mm		
3	0.019	●
4	0.035	●
5	0.055	●
6	0.079	●
7	0.107	●
8	0.140	●
9	0.178	●
10	0.219	●
11	0.266	●
12	0.316	●
14	0.431	●
15	0.494	●
16	0.562	●
18	0.712	●
19	0.793	●
20	0.879	●
21	0.969	●
22	1.064	●
25	1.374	●
26	1.486	●

<sup>1</sup>Other diameters available on request.

Average weights of production.

- Standard: generally available from stock
- Semi-standard: generally not available from stock
- Non-standard: generally not available from stock, manufactured to order and subject to special conditions.