



SERIES 2000 ●

AW 2007 (Al Cu4PbMgMn)

Among the aluminium alloys suitable for high-speed automatic lathes, alloy 2007 has the highest mechanical characteristics. This alloy is often selected when it is necessary to have a good combination of machinability and high mechanical properties. However, it has low resistance to corrosion.

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

ELEMENTS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Ni	Pb	Bi	Sn	Al
Minimum	-	-	3.3	0.5	0.4	-	-	-	-	0.8	-	-	-
Maximum	0.8	0.8	4.6	1	1.8	0.1	0.8	0.2	0.2	1.5	0.2	0.2	Rest

MECHANICAL PROPERTIES (EN 755 - 2)

EXTRUDED

TEMPER	DIAMETER (mm)	Rm* (MPa)	Rp0.2* (MPa)	A* (%)	HB - BRINELL HARDNESS
T4, T4510, T4511	≤ 80	370	250	8	95
T4, T4510, T4511	80 - 200	340	220	8	95
T4, T4510, T4511	200 - 250	330	210	7	95

*Minimum values

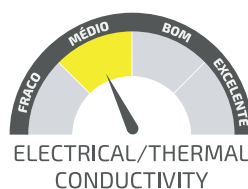
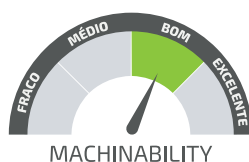


MAIN CHARACTERISTICS

- Alloy with the highest mechanical properties
- Often selected when a combination of good machining and high mechanical properties is required
- Low resistance to corrosion

APPLICATIONS

- Screws
- Nuts
- Threads
- Threaded rods

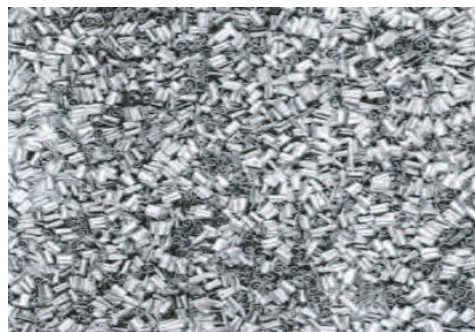




SERIES 2000

PHYSICAL PROPERTIES

DENSITY	2.85 g/cm ³
MODULUS OF ELASTICITY	71 000 MPa
LINEAR EXPANSION COEFFICIENT	23.5 10 ⁻⁶ K ⁻¹
THERMAL CONDUCTIVITY	140 W/mK
ELECTRICAL CONDUCTIVITY	53 - 49 MS/m



PROPERTIES	T4
MACHINABILITY	GOOD
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	POOR
ABRASIVE WELDABILITY	POOR
COLD PLASTIC FORMABILITY	POOR
HOT PLASTIC FORMABILITY	FAIR

DELIVERY PROGRAM

ROUND RODS

DIAM. ¹ (mm) EXTRUDIDO	WEIGHT (kg/m)	STOCK T4	STOCK T4511	DIAM. ¹ (mm) EXTRUDIDO	WEIGHT (kg/m)	STOCK T4	STOCK T4511
Standard length 3000mm							
20	0.879	●	○	120	31.668	●	○
25	1.374	●	○	130	37.165	●	○
30	1.979	●	○	140	43.102	●	○
32	2.251	●	○	150	49.480	●	○
35	2.693	●	○	160	56.297	●	○
40	3.518	●	○	170	63.554	●	○
45	4.552	●	○	180	71.251	●	○
50	5.497	●	○	190	77.900	●	○
55	6.652	●	○	200	86.300	●	○
60	7.916	●	○	210	95.200	●	○
65	9.291	●	○	225	111.375	●	○
70	10.775	●	○	250	135.000	○	○
75	12.370	●	○	254	144.00	●	○
80	14.074	●	○	260	146.000	●	○
85	15.888	●	○	270	153.400	○	○
90	17.813	●	○	275	166.375	●	○
100	21.991	●	○	300	194.300	○	○
110	26.609	●	○	304.8	211.00	●	○
115	29.083	●	○				

¹Other diameters available on request.

Material calibrated on request.

Average weights of production.

SQUARE RODS

THICKNESS ¹ (mm)	WEIGHT (kg/m)	STOCK T4
Standard length 3000mm		
30	2.520	○
35	3.430	○
40	4.480	○
45	5.670	○
50	7.000	○
60	10.080	○
70	13.720	●
80	17.920	●
90	22.680	○
100	28.000	●
110	33.880	○
120	40.320	○
130	47.320	○
150	67.800	○

¹Other thicknesses available on request.

Material calibrated 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.