

Aluminium Alloy 6082 (EN AW 6082 AlSi1MgMn)  
 According to EU directives: 2000/53/CE (ELV) - 2011/65/CE (RoHS II)

- Aluminium-magnesium-silicium alloy.
- It is principally used in space-frame and sub-frame automotive, naval constuction, hot forged components.
- Medium-high mechanical characteristics, good corrosion strenght. Good for decorative anodizing.

		THICKNESS							
		0,4≤1,5	1,5≤3	3≤6	6≤12,5	12,5≤60	60≤100	100≤150	150≤175
<b>Physical state</b>		T6 -T651							
<b>Mechanical properties</b>									
Ultimate tensile strenght Rm[N/mm <sup>2</sup> ]	minimal	310	310	310	300	295	295	275	275
Yield strenght Rp 0,2	minimal	260	260	260	255	240	240	240	230
Elongation As	minimal	6	7	10	9	8	7	6	4
Hardness Brinell HB (information only)	minimal	94	94	94	91	89	89	84	83
<b>Physical properties</b>									
Density [kg/dm <sup>3</sup> ]		2,71							
Module of elasticity [Gpa]		70							
Electrical conductivity at 20 °C [m/Ω-mm <sup>2</sup> ]		27							
Coefficient of thermal expansion [10 <sup>-6</sup> /K]		23,4							
Thermal conductivity [w/m.K]		174							
Melting point range °C		570 ÷ 645							
<b>Processing characteristics</b>									
Machinability		+++							
Dimensional stability		+++							
Erodability		++++							
Weldability		++++							
Polishability		++++							
Anodizing decorative		+++++							
Anodizing hard		+++++							
Corrosion resistance (weather)		+++++							
Corrosion resistance (seawweather)		++++							

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	Others	IMPURITY	ALUMINIUM
6082	0,70-1,30	≤0,50	0,40-1,00	0,60-1,20	≤0,10	≤0,20	≤0,25	≤0,10						0,05	0,15 remainder