



Aluminium Alloy 5083 (EN AW 5083 AlMg4,5Mn)
According to EU directives: 2000/53/CE (ELV) - 2011/65/CE (RoHS II)

- Aluminium-magnesium alloy.
- They are used for the realization of all precision mechanical components
- The dimensional stability is guaranteed during and after processing.

	THICKNESS	
	6,35≤600	600≤1060
Physical state	CAST PLATES	
Mechanical properties		
Ultimate tensile strenght Rm[N/mm ²]	240	240
Yield strenght Rp 0,2	110	110
Elongation A _s	14	12
Hardness Brinell HB (information only)	70	70
Physical properties		
Density [kg/dm ³]	2,66	
Module of elasticity [Gpa]	71	
Electrical conductivity at 20 °C [m/Ω-mm ²]	18	
Coefficient of thermal expansion [10 ⁻⁶ /K]	24,2	
Thermal conductivity [w/m.K]	120	
Melting point range °C	574 ÷ 638	
Tolerance		
Tolerance in thickness < 150 mm	-0/+3 mm	
Tolerance in thickness 150 ≤ 400 mm	-0/+6 mm	
Tolerance in thickness ≤ 400 mm	-0/+10 mm	
Processing characteristics		
Machinability	+++++	
Dimensional stability	+++++	
Erodability	+++	
Weldability	+++++	
Polishability	++++	
Anodizing decorative	++++	
Anodizing hard	++++	
Corrosion resistance (weather)	+++++	
Corrosion resistance (seawather)	++++	

Legend - Processing Characteristics

Excellent +++++

Good ++++

Accettable +++

Mediocre ++

Inadequate +

Not suitable -

CHEMICAL COMPOSITION

DENOMINATION	Si	Fe	Mn	Mg	Cu	Zn	Cr	Ti	Ni	Pb	Bi	V	Others	IMPURITY	ALUMINIUM
5083	0,40	0,40	0,40-1,00	4,00-4,90	0,10	0,25	0,05-0,25	0,15						0,05	0,15 remainder