

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

- Aluminium - magnesium alloy.
- Typical rolled alloy with medium-low mechanical characteristics
- It is principally used in chemical industry, packaging, food, HVAC and electric conductors.

		THICKNESS						
		1,5≤3	3≤6	6≤12,5	12,5≤50	50≤80	80≤120	120≤150
<b>Physical state</b>		H111						
<b>Mechanical properties</b>								
Ultimate tensile strenght Rm[N/mm <sup>2</sup> ]	minimal	275	275	275	275	270	260	255
Yield strenght Rp 0,2	minimal	125	125	125	125	115	110	105
Elongation A <sub>s</sub>	minimal	13	15	16	15	14	12	12
Hardness Brinell HB (information only)	minimal	75	75	75	75	73	70	69
<b>Physical properties</b>								
Density [kg/dm <sup>3</sup> ]		2,66						
Module of elasticity [Gpa]		71						
Electrical conductivity at 20 °C [m/Ω-mm <sup>2</sup> ]		18						
Coefficient of thermal expansion [10 <sup>-6</sup> /K]		24,2						
Thermal conductivity [w/m.K]		117						
Melting point range °C		574 ÷ 638						
<b>Processing characteristics</b>								
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