



# ALUMINIUMS Alloys Rectified Precision Plate (5083)

## Chemical composition

%	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others
Minimum				0,40	4,00	0,05			Ti+Zr
Maximum	0,40	0,40	0,10	1,00	4,90	0,25	0,25	0,15	0,20 0,15

## Mechanical properties

Breaking load R <sub>m</sub> N/mm <sup>2</sup>	Elastic limit R <sub>p0.2</sub> N/mm <sup>2</sup>	Elongation at 5.65%	Fatigue limit N/mm <sup>2</sup>	Shear strength τ N/mm <sup>2</sup>	Brinell (Hardness HB)
240-280	125-190	10			70

## Physical properties

Modulus of elasticity N/mm <sup>2</sup>	Specific weight g/cm <sup>3</sup>	Melting temperature °C	Linear expansion coefficient 1/10 <sup>6</sup> K	Thermal conductivity W/mK	Electrical resistivity at 20°C - μΩ cm	Electrical conductivity% IACS	Dissolution potential V
70.000	2,66	580-640	23,3	117	6	16,2	

## Technological suitabilities

Welding		Anodized		Natural behaviour		Coating	
Under flame	<b>MB</b>	For protection	<b>MB</b>	Atmospheric agents	<b>MB</b>	Galvanized	<b>B</b>
To low arc (TIG-MIG)	<b>MB</b>	Decoration	<b>R</b>	Marine environment	<b>MB</b>	Electroless nickel	<b>B</b>
Resistance	<b>MB</b>	Hard	<b>MB</b>				
Brazed	<b>M</b>			<b>Mechanization</b>	<b>B</b>		

## TOLERANCES

Thickness in mm	Flatness mm/m	Tolerance in thickness	Roughness
5	≤ 0,80	± 0,1	0,4 μm R <sub>a</sub>
6 - 12,7	≤ 0,40	± 0,1	0,4 μm R <sub>a</sub>
>12,7	≤ 0,13	± 0,1	0,4 μm R <sub>a</sub>

## PRODUCT

Aluminium plate milled and plastified on both sides.

## Observations and applications

One of its main characteristics is that it is stress-free and thus remains stable during the machining process.

Its main applications are: high precision parts, electronic components, automobile industry, computers, pneumatics, manufacture of machinery for packaging etc.