



ALUMINIUMS Alloys Homogenized Plate AA 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 _m N/mm ²	Elastic limit R _{p0.2} N/mm ²	Elongation at 5.65%	Fatigue limit N/mm ²	Shear strength τ N/mm ²	Brinell (Hardness HB)
240-280	100-130	6		175	70

Physical properties

Modulus of elasticity N/mm ²	Specific weight g/cm ³	Melting temperature °C	Linear expansion coefficient 1/10 ⁶ 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	110-130	6	16,2	

Technological suitabilities

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

PRODUCT

Homogenized aluminium plate. Formats up to 1030 mm thick can be supplied.

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: moulds for thermoforming, moulds for blowing, moulds for vacuums, prototype moulds etc.