Al Cast Plate G.AL® C330 precision milled

Alloy´s Characteristics	
Alloy	EN AW 7021 (special type)
Type of Alloy	heat treatable
Temper	solution heat treated, quenched, artifically aged, T79
Surface	two surfaces precision milled, roughness R_a 0,4 µm, foiled both sides

Mechanical Properties [1]		Typical values
Yield strength $R_{p0,2}$	[MPa]	290-340
Ultimate tensile strength R_m	[MPa]	320-380
Elongation A_5	[%]	2.5 – 4.5
Hardness HBW	[2,5/62,5]	110 – 120

Physical Properties [1]		Typical values
Density	[g/cm³]	2.80
Module of elasticity	[GPa]	70
Electrical conductivity	[m/Ω · mm²]	21 – 24
Coefficient of thermal expansion	[$K^{-1} \cdot 10^{-6}$]	23.0
Thermal conductivity	[W/m · K]	125 – 155
Specific heat capacity	[J/kg · K]	875

Processing Characteristics [2]	
Dimensional stability	2
Machinability	1 – 2
Erodability	1
Weldability (Gas / TIG / MIG / Resistance / EB)	6 / 5 / 2 / 6/ 1
Corrosion resistance (seawater / weather/ stress cracking)	4 / 3 / 4
Use at temperatures (max °C long/short terms) [3]	120 / 160
Anodising (technical / decorative / hard-) [4]	3 / 6 / 2
Polishability	1 – 2
Etching	2 – 3
Contact with food (according to EN 602)	no

Tolerances			
Thickness in [mm]	Flatness [mm] [5]	Thickness [mm]	Width & Length [mm]
≤ 15	0,40	± 0,1	-0/+10 & -0/+20
> 15	0,25	± 0,1	-0/+10 & -0/+20
cuts			DIN ISO 2768-1m

Standard Stock Sizes	
Plate Dimension [mm]	1,540 × 3,048
Plate Thickness [mm]	10 | 12 | 15 | 20 | 25 | 30 | 35 | 40 | 50 |
Other dimension upon request	

Date: 12.07.2016

1) Typical values at room temperature.
2) Ratings evaluation rating from 1 (very good) to 6 (inapplicable).
3) Without loss of strength after cooling down.
4) Technical anodising only - no warranty towards optical demands.
5) Surface flatness for whole plates is measured with a special, 1 meter long, digital flatness ruler.