

precision cast plates G.AL® C330

Plate's Characteristics	
Alloy	EN /AA 7021 (special type)
Type of Alloy	heat treatable
Temper	hardened T79
Surface	precision milled, roughness R_a 0,4 μm , foiled both sides

Mechanical Properties ¹⁾		Typical values
Yield strength $R_{p0,2}$	[ksi]	42 - 49
Ultimate tensile strength R_m	[ksi]	46 - 55
Elongation A_5	[%]	2.5 - 4.5
Hardness HBW	[2.5/62.5]	110 - 120

Physical Properties ¹⁾		Typical values
Density	[lbs/cu in.]	0.101
Module of elasticity	[ksi·10 ³]	10.2
Electrical conductivity	[% IACS]	38 - 43
Coefficient of thermal expansion	[10 ⁻⁶ /°F]	13
Thermal conductivity	[BTU in/ft ² hr°F]	865 - 1070
Specific heat capacity	[BTU/lb°F]	0.208

Processing Characteristics ²⁾	
Dimensional stability	1 - 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°F / long / short / terms) ³⁾	248 / 284
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 [in]	Flatness [in] ⁵⁾	Thickness [in]	Width & Length [in]
≤ 0.625	0.015	+/- 0.004	+ 0.375 / -0/ + 0.79
> 0.625	0.010	+/- 0.004	+ 0.375 / -0/ + 0.79
cuts			DIN ISO 2768-1m

Standard Stock Sizes		
Plate Dimension [in]	60.5 × 120.0	in thickness of 0.375 - 2.000 mm
Plate Thickness [in]	0.38 to 4	
Other dimension upon request		

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- 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.

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