

G.AL® C330 – Precision Milled Plate

Specifications	
Alloy:	EN AW/AA 7021
Type of Alloy:	Heat-Treatable
Temper:	Hardened, T79
Surface:	Precision Milled, Roughness R_a 0,4 μm , PVC on both sides

Mechanical Properties ¹⁾		
Yield Strength $R_{p0.2}$	[ksi]	42 – 49
Tensile Strength Limit R_m	[ksi]	46 – 55
Elongation A	[%]	2.5 – 4.5
Hardness HBW	[2.5/62.5]	110 – 120

Physical Properties ¹⁾		
Density	[lbs/cu in.]	0.101
Module of Elasticity	[ksi · 10 ³]	10.2
Electrical Conductivity	[% IACS]	38 – 43
Coefficient of Therm. Expans.	[10-6/ °F]	13
Thermal Conductivity	[BTU/ft · hr · °F]	72 – 90
Specific Heat Capacity	[BTU/ lb °F]	0.208

Characteristics:

- ✓ High Strength
- ✓ Excellent Form Stability
- ✓ Easily Machined
- ✓ Stress Relieved
- ✓ Uniform Flatness
- ✓ Precision milled surface

Applications:

- ✓ Toolmaking
- ✓ Installations
- ✓ Printing
- ✓ Automation
- ✓ Handling and Robotics
- ✓ Mechanical and Special Machine Engineering

Processing Characteristics ²⁾	
Dimensional Stability	Very good
Machinability	Very good
Erodability	Excellent
Weldability (Gas / TIG / MIG / Resistance / EB)	Good – Very good
Corrosion resistance (seawater / weather)	Reasonable
Use at temperatures (max°F / long / short terms) ²⁾	248 / 284
Anodizing ³⁾	Reasonable
Polishability	Good – Very good
Etching	Good
Contact with food (according to EN 602)	No

Tolerances			
Thickness [in]	Flatness [in] ⁴⁾	Thickness [in]	Width & Length [in]
< 0.625	≤ 0.015	+/- 0.004	-0 / + 0.790
> 0.625	≤ 0.010	+/- 0.004	-0 / + 0.790
Cuts			DIN ISO 2768-1m

Standard Stock Sizes	
Plate Dimension [in]	Plate Thickness [in]
60.5 x 120.0	0.375 – 4.000
Other dimension upon request	

Date: December 23, 2024

1) Typical values at room temperature.

2) Without loss of strength after cooling down.

3) Technical anodizing only - no warranty towards optical demands

4) Surface flatness for whole plates measured with a special, 1-meter-long, digital flatness ruler

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