

G.AL® C250 ELOX PLUS

Plate's Characteristics	
Alloy	EN AW 5083 [AlMg4,5Mn0,7]
Type of Alloy	non heat treatable
Temper	homogenized and stress relieved, O3
Surface	two surfaces precision milled, roughness R_a 0.4 μm , foiled on both sides

Mechanical Properties ¹⁾		Typical values
Yield strength $R_{p0,2}$	[ksi]	16 - 19
Ultimate tensile strength R_m	[ksi]	33 - 38
Elongation A	[%]	10 - 15
Hardness HBW	[2.5/62.5]	68 - 73

Physical Properties ¹⁾		Typical values
Density	[lbs/cu in.]	0,096
Module of elasticity	[ksi·10 ³]	10.2
Electrical conductivity	[% IACS]	29 - 32
Coefficient of thermal expansion	[10 ⁻⁶ /°F]	13.1
Thermal conductivity	[BTU in/ft ² hr°F]	760 - 900
Specific heat capacity	[BTU/lb°F]	0.214

Processing Characteristics ²⁾	
Dimensional stability	1
Machinability	2
Weldability (Gas / TIG / MIG / Resistance / EB)	4 / 2 / 2 / 2 / 1
Corrosion resistance (seawater / weather/ stress cracking)	1 / 1 / 3
Use at temperatures (max°F / long / short / terms) ³⁾	356 / 536
Anodising (technical / decorative / hard-) ⁴⁾	1 / 2 / 1
Polishability	2 - 3
Etching	4 - 5
Contact with food (according to EN 602)	yes

Tolerances			
Thickness in [in]	Flatness [in] ⁵⁾	Thickness [in]	Width & Length [in]
< 0.500	≤ 0.015	+/- 0.004	-0 / + 0.375
> 0.500	≤ 0.005	+/- 0.004	-0 / + 0.375
-	-	-	-
cuts	-	+/- 0.004	DIN ISO 2768-1m

Standard Stock Sizes	
Plate Dimension [in]	59.8 × 118.9
Plate Thickness [in]	0.38 to 2
Other dimension upon request	

Date: 06.06.2019

- 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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