

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 [mm] | [in] 59.8 × 118.9 |
| Plate Thickness [mm] | 0.39; 0.47; 0.59; 0.79; 0.98; 1.18; 1.58 |
| 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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