# G.AL® C330 – precision milled plate

| Alloy's charcteristics | |
|---|---|
| Alloy: | EN AW-7021 [ AlZn5,5Mg1,5] |
| Type of Alloy: | heat treatable |
| Temper: | solution heat treated, quenched, artificially aged, T79 |
| Surface: | two surfaces precision milled, roughness Ra 0.4 µm, foiled on both sides |

| Mechanical Properties 1) | | |
|---|---|---|
| Yield strength $R_{p0,2}$ | [MPa] | 290 – 340 |
| Ultimate tensile strength $R_m$ | [MPa] | 320 – 380 |
| Elongation $A_{50}$ | [%] | 2,5 – 4,5 |
| Hardness HBW | [2,5/62,5] | 110 – 120 |

| Physical Properties 1) | | |
|---|---|---|
| Density | [g/cm³] | 2,8 |
| Module of elasticity | [GPa] | 70 |
| Electrical conductivity | [M/Ω·mm²] | 21 – 24 |
| Coeffic. of thermal expansion | [$K^{-1} \cdot 10^{-6}$] | 23,0 |
| Thermal conductivity | [W/m·K] | 125 – 155 |
| Specific heat capacity | [J/kg · K] | 875 |

## Characteristics:

- ✓ very high strength
- ✓ very uniform flatness
- ✓ extremly stress relieved
- ✓ very good machinability
- ✓ excellent form stability

## Applications:

- ✓ Toolmaking
- ✓ Installation technology
- ✓ Printing industry
- ✓ Automation technology
- ✓ Handling and robotic technology
- ✓ Mechanical engineering and special machine engineering

| 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 °C long/short terms) 3) | 120 / 140 |
| 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/m] | Thickness [mm] | Length & width [mm] |
| ≤ 15 | ≤ 0,40 | +/- 0,10 | -0/+20 / -0/+10 |
| > 15 | ≤ 0,25 | +/- 0,10 | -0/+20 / -0/+10 |
| Cuttings | | | DIN ISO 2768-1m |

| Standard Stock Sizes | | |
|---|---|---|
| Plate Dimension [mm] | 1.540 x 3.048 | in thickness of 10 – 40 mm |
| Plate Thickness [mm] | 10; 12; 15; 20; 25; 30; 35; 40; 50 | |
| Other dimension upon request | | |

Date: 18.10.2023
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