

G.AL® 7075GF

Alloy's Characteristics	
Alloy	EN AW 7075
Type of Alloy	heat treatable
Temper	T651
Surface	two surfaces precision milled, roughness R_a 0.4 μm , foiled

Mechanical Properties ¹⁾		Typical values
Yield strength $R_{p0,2}$	[MPa]	460 – 470
Ultimate tensile strength R_m	[MPa]	530 – 540
Elongation A_{50}	[%]	5 – 8
Hardness HBW	[2,5/62,5]	158 – 161

Physical Properties ¹⁾		Typical values
Density	[g/cm ³]	2.80
Module of elasticity	[GPa]	71
Electrical conductivity	[m/Ω · mm ²]	19 – 23
Coefficient of thermal expansion	[K ⁻¹ · 10 ⁻⁶]	23.4
Thermal conductivity	[W/m · K]	130 – 160
Specific heat capacity	[J/kg · K]	862

Processing Characteristics ²⁾	
Dimensional stability	5 – 6
Machinability	1
Erodability	1
Weldability (Gas / TIG / MIG / Resistance / EB)	6 / 6 / 6 / 2 / 5
Corrosion resistance (seawater / weather/ stress cracking)	5 / 5 / 3
Use at temperatures (max °C long/short terms) ³⁾	90 / 120
Anodising (technical / decorative / hard-) ⁴⁾	4 / 6 / 2
Polishability	1
Etching	1
Contact with food (according to EN 602)	no

Tolerances			
Thickness in [mm]	Flatness [mm] ⁵⁾	Thickness [mm]	Width & Length [mm]
12 – 15	< 0,8	+/- 0.1	
> 15	≤ 0,50	+/- 0,10	
cuts	-	-	DIN ISO 2768-1m

Standard Stock Sizes		
Plate Dimension [mm]	1,520 × 3,020	in thickness of 12 – 40 mm
Plate Thickness [mm]	12, 15, 20, 25, 30, 40	
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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