ALU-CUTTING HUNGARY ZRT.

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ACP 5080

Industry leading flatness and tolerances combined with excellent dimensional stability

Chemical Composition

EN AW-5083 (AlMg4.5Mn0.7), acc. to DIN EN 573-3 / 3.3547

Material Properties

Machinability	**very good (HSC/HPC excellent)**
Weldability (TIG, MIG)	**good (with S Al 5183)**
Anodising Properties	**good, not decorative**
Polishing	**very good**
Corrosion Resistance	**very good**
Eroding Properties	**good**

Typical Mechanical Properties (standard sizes)

Tensile Strength Rm	**240–290 MPa (N/mm²)**
0.2% Yield Strength Rp0.2	**110–130 MPa (N/mm²)**
Elongation A	**15 (+/- 5) %**
Brinell Hardness	**74 (+/- 5) HB**

Typical Physical Properties

Density	**2.66 g/cm³**
Thermal Conductivity	**110–140 W/(mK)**
Electrical Conductivity	**16–19 MS/m (≈ Ω mm²/m)**
Modulus of Elasticity	**~70,000 N/mm²**
Coefficient of Thermal Expansion	**24.2 × 10^{-6}/K**

Standard Sizes

Thickness	**5–220 mm**
Width	**1520–2160 mm**
Length	**3020–4050 mm**
Standard plate formats	• **1520 × 3020 mm** • **1570 × 3670 mm** • **2160 × 4000 / 4050 mm**

Special Sizes

Width	**up to 2600 mm**
Length	**up to 6000 mm**

(Maximum individual weight 5 t)

Tolerances (standard sizes)

Surface Finish Ra	**≤ 0.25 µm**
Tolerance in Thickness	**+/- 0.1 mm**

Flatness	
≤ 8 mm thickness	**≤ 0.2 mm**
> 8–12 mm thickness	**≤ 0.15 mm**
> 12–220 mm thickness	**≤ 0.13 mm (linear measured section 1 m)**

Tolerance in Width for Plates	**0/+10 mm**
Tolerance in Length for Plates	**0/+10 mm**
Tolerance (L/W) for cut pieces	• **≤ 150 mm thickness: DIN ISO 2768-m** • **> 150 mm thickness: 0/+3 mm (linear measured section 1 m)**

Other tolerances on request.

Source: Alimex