

**ALT 5083** 

“Aluminium precision milled plate”

aludur

**ALUDUR** a brand name of Altek Metal for cast plates.

ALT 5083plus aluminium precision milled plate product is characterized by an excellent dimensional stability. By adopting and extended thermal heat treatment the material becomes homogenized and thermally stress relieved. This high stability leads to cost saving on extra operations such as rough-milling, finishing or re-works. Each plate is inspected for thickness, flatness, surface roughness and any other defects and finally covered with PVC foil for protection.

### MATERIAL PROPERTIES

Form Stability	Very Good
Machinability	Very Good
Eroding Resistance	Good
Welding (Gas/TIG/MIG/Resistance)	Poor / Good / Good /Good
Corrosion Resistance (Seawater / Weather)	Very Good / Very Good
Use of Temperature ( max°C long / short Term)	180 / 280
Anodising (Not Decorative)	Good
Polishability	Very Good
Contact with Food	Yes

### MECHANICAL PROPERTIES

Tensile Strength $R_m$	230-290 MPa
0,2% Yield Strength	110 - 130 Mpa
Elongation A 5%	10 - 14
Hardness Brinell	69 - 73

### PHYSICAL PROPERTIES

Density	2,66 g/cm <sup>3</sup>
Thermal Conductivity	110-130 W/m *K
Module of Elasticity	70,000 N/mm <sup>2</sup>
Coefficient of Thermal Expansion	24,2 10 <sup>-6</sup> /K
Electrical Conductivity	16-19 (m / $\Omega$ mm <sup>2</sup> )
Specific Heat Capacity	900 (J/ kg * K)

### MAIN FIELDS OF APPLICATION

- + Aircraft Industry Processing Plate
- + Automotive Industry Processing Plate
- + Base Plates, Side Plates and Indexing Tables
- + CNC Routing Tables
- + Checking Fixtures, Gauges and Templates
- + Dielectrics
- + Electronics
- + Food Machinery Parts

### CHEMICAL COMPOSITION

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

### THICKNESS RANGES & SIZES

Thickness between 6,35 mm to 305 mm  
Plates and precut sizes in every dimension depending on the block formats.

Width x Lenght\*  
1520 x 3020 mm  
*\*Please contact with us for other dimensions.*

### TOLERANCES

Surface Roughness Ra  $\leq 0,30 \mu\text{m}$

Thickness  
+ / - 0,13 mm

Width and Lenght  
+ / - 0,20 mm

Flatness  
6-12 mm thickness  $\leq 0,40 \text{ mm}^*$   
> 12 mm thickness  $\leq 0,13 \text{ mm}^*$

\* Checked on a granite table using a flatness state of the art measuring device on linear measure section of 1 meter.

### Packing

- Both sides PVC covered
- Pallets EN norming according to EN 13382

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