

# HABA G-Alu25 eloxtop

Milled aluminium plates | cut to size

G-Alu25 eloxtop is a naturally hard cast aluminium plate that meets the highest requirements for machinability and dimensional stability. The special manufacturing process is carried out according to strict HABA factory standards. These standards apply to all process steps and are a guarantee for the excellent guarantee for the excellent properties, homogeneous microstructure as well as gas and vacuum tightness. The high microstructure quality ensures good results in surface finishing.

## FINISHES

Thickness	precisely milled Ra0.8 (N6)
Tolerance	+/-0.05 mm
Protective film	two-sided
Cardboard	one-sided
Parallelism	≤0.05 mm
Evenness	≤0.2 mm
Length/width	Ra3.2-6.3 cut with a precision circular saw
HABA standard tolerance	nominal size +0.8/+0.3 mm
Customer-specific tolerance	within a tolerance field of 0.4 mm

We also produce other thicknesses and tolerances on request.

## TECHNICAL SPECIFICATIONS

Tensile strength $R_m$	250 - 290 (MPa)
Yield strength $R_{p0.2}$	115 - 135 (MPa)
Breaking strain ( $L_o = 5 d_o$ ) $A_5$	>15 %
Brinell hardness (HBS)	70 - 75
Density	2.66 kg/dm <sup>3</sup>
E-module	~70.000 N/mm <sup>2</sup>
Thermal conductivity coefficient	110-140 W/mK
Thermal expansion coefficient	24 x 10 <sup>-6</sup> /K
Electrical conductivity	16-19 m/Ω mm <sup>2</sup>
State	homogenised and stress-annealed (O3)

## INSTRUCTIONS

G-Alu25 eloxtop is well suited for machining. The chippings are short and break well. Use tools for working aluminium with a cutting speed >2000 m/min. Threads are produced favourably with thread moulders.

## CHEMICAL COMPOSITION

Magnesium	Mg	4.00-4.90 %	Copper	Cu	≤0.10 %
Manganese	Mn	0.40-1.00 %	Titanium	Ti	≤0.15 %
Chromium	Cr	0.05-0.25 %	Zinc	Zn	≤0.25 %
Iron	Fe	≤0.40 %	Other elements together		≤0.15 %
Silicium	Si	≤0.40 %	Other elements individually		≤0.05 %

DIN Material no.	3.3547
Designation	Cast plate, similar: EN AW-5083 EN AW-AMg4.5Mn0.7
Material code	AMg4.5Mn
State	homogenised (O3)

## MATERIAL IN USE

Plant and apparatus construction  
Vehicle construction  
Jig manufacturing  
Prototype construction  
Mechanical engineering  
Toolmaking and mould construction  
Ship and offshore construction  
Low-temperature technology

## APPLICATIONS

Base plates  
Rotary tables  
Side walls  
Foam, deep-draw and sample moulds  
Machined and engineered parts of all kinds

## PROPERTIES

machinability	very good
dimensional stability	very good
MIG/TIG weldability	good
Weatherproofness	very good
Seawater resistance	very good
Contact with foodstuffs	yes

## SURFACE TREATMENT

Decorative anodisation	good
Protective anodisation	very good
Paintwork, coating	moderate
Galvanic coating	good
Chemical nickel coating	good

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