

# HABA Alu35

Grinded rolled aluminium plates  
cut to size

Alu35 is a low-tension annealed rolled plate with a grinded surface. The plates have excellent parallelism, are easy to machine and extremely dimensionally stable.

## FINISHES

Thickness	grinded Ra1.6 (N7)
Tolerance	+0.2/0 mm
Cardboard	one-sided
Parallelism	≤0.1 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 $R_m$	255-350 (N/mm <sup>2</sup> )
Yield strength $R_{p0.2}$	≥105 (N/mm <sup>2</sup> )
typical values	140-200 (N/mm <sup>2</sup> )
Breaking strain ( $L_o = 5 d_o$ ) $A_5$	≥12 %
typical values	17-22%
Brinell hardness (HBS)	≥ 70
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	24.2 x 10 <sup>-6</sup> /K
Electrical conductivity	16-19 m/Ω mm <sup>2</sup>
State	H111 (soft)

## INSTRUCTIONS

HABA Alu35 is well suited for machining. 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	EN AW-5083 EN AW-AMg4.5Mn0.7
Material code	AMg4.5Mn
State	H111

## 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 and sample moulds

## PROPERTIES

strength in the core	
of thicker plates	consistent
machinability	good
dimensional stability	very good
MIG/TIG weldability	good
Weatherproofness	excellent
Seawater resistance	excellent
Contact with foodstuffs	yes
tenacity	high
elongation	high

## SURFACE TREATMENT

Decorative anodisation:	moderate
Protective anodisation:	excellent
Paintwork, coating:	good
Galvanic coating:	good
Chemical nickel coating:	excellent

We declare that our products are not suitable for any other applications and purposes, other than those specified here and do not have other product properties than those specified here.

