

# HABA G-Alu25

Sawn or milled aluminium casting plates  
cut to size

G-Alu25 is a naturally hardened aluminium casting plate which fulfils the most demanding machinability and dimensional stability requirements. The special casting process is the guarantee for the homogenous joint and the vacuum tightness.

## FINISHES

Thickness  
tolerance  
Parallelism  
Evenness

## SAWN BLANKS

cut by band saw Ra25 (N12)  
+1/0 mm  
0.3 mm  
0.3 mm

## FINELY MILLED BLANKS

Thickness  
tolerance  
protective film  
cardboard  
Parallelism  
Evenness

precisely milled  $\leq$ Ra0.8 (N6)  
+/-0.05 mm  
one-sided  
one-sided  
 $\leq$ 0.05 mm  
 $\leq$ 0.2 mm

## MILLED AND SAWN BLANKS

Length/width

Ra3.2-6.3 cut with a precision  
circular saw cut edges deburred

HABA standard tolerance  
Customer-specific tolerance

nominal size +0.8/+0.3 mm  
within a tolerance field of 0.4 mm

We also produce other thicknesses and tolerances on request.

## TECHNICAL SPECIFICATIONS

Tensile strength $R_m$	$\geq$ 250 (N/mm <sup>2</sup> )
Yield strength $R_{p0.2}$	$\geq$ 115 (N/mm <sup>2</sup> )
Breaking strain ( $L_o = 5 d_o$ ) $A_5$	6-10 %
Brinell hardness (HBS)	$\geq$ 70
Density	2.66 kg/dm <sup>3</sup>
E-module	$\sim$ 70.000 N/mm <sup>2</sup>
Thermal conductivity coefficient	110-140 W/mK
Thermal expansion coefficient	$24 \times 10^{-6}$ /K
Electrical conductivity	16-19 m/ $\Omega$ mm <sup>2</sup>
State	homogenised

## CHEMICAL COMPOSITION

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

## 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	great
MIG/TIG weldability	good
Weatherproofness	excellent
Seawater resistance	excellent

## SURFACE TREATMENT

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

## INSTRUCTIONS

HABA G-Alu25 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.

