HABA G-Alu25

Sawn or milled aluminium casting plates cut to size

DIN Material no.	3.3547
Designation	Cast plate, similar:: EN AW-5083 EN AW-AlMg4.5Mn0.7
Material code	AlMg4.5Mn0.7
State	homogenised, O3

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 join and the vacuum tightness.

FINISHES

SAWN BLANKS	
Thickness	cut by band saw Ra25 (N12)
Tolerance	+1/0 mm
Parallelism	0.3 mm
Evenness	0.3 mm
FINELY MILLED BLANKS	
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
MILLED AND SAWN BLANKS	
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 (N/mm²)
Yield strength $R_{p0.2}$	≥115 (N/mm²)
Breaking strain (L_o = 5 d_o) A_5	6-10 %
Brinell hardness (HBS)	≥70
Density	2.66 kg/dm³
E-module	~70.000 N/mm²
Thermal conductivity coefficient	110-140 W/mK
Thermal expansion coefficient	24 x 10^{-6}/K
Electrical conductivity	16-19 m/Ω mm²
State	homogenised, O3

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.

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 %

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

PROPERTIES

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

SURFACE TREATMENT

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

HABA Solutions in plates

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