HABA G-AlMg3

Sawn or milled aluminium casting plates cut to size

DIN Material no.	3.3535
Designation	Cast plate, similar: EN AW-5754 EN AW-AlMg3
Material code	AlMg3
State	homogenised

G-AlMg3 is a naturally hardened aluminium casting plate which fulfils the most demanding machinability and dimensional stability requirements. G-Almg3 is excellent suited for decorative and technical anodizing. The special casting process is the guarantee for the homogenous join and the vacuum tightness.

MATERIAL IN USE

Plant and apparatus construction
Jig manufacturing
Prototype construction
Mechanical engineering

APPLICATIONS

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

FINISHES

(on request)

Thickness	cut by band saw Ra25 (N11)
Tolerance	+1/0 mm

SAWN BLANKS

FINELY MILLED BLANKS

Thickness	precisely milled ≤Ra0.8 (N6)
tolerance	+/-0.1 mm
protective film	on both sides
Parallelism	≤0.1 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.

PROPERTIES

machinability	very good
dimensional stability	great
MIG/TIG weldability	good
Weatherproofness	excellent
Seawater resistance	excellent
technical anodisation	very good
decorative anodisation	very good

TECHNICAL SPECIFICATIONS

Tensile strength R_m	190-230 (N/mm²)
Yield strength $R_{p0.2}$	≥80 (N/mm²)
Breaking strain (L_o = 5 d_o) A_5	6-10 %
Brinell hardness (HBS)	≥50
Density	2.66 kg/dm³
E-module	~70.000 N/mm²
Thermal conductivity coefficient	140-160 W/mK
Thermal expansion coefficient	24 x 10^{-6}/K
Electrical conductivity	20-23 m/Ω mm²
Statehomogenised	

SURFACE TREATMENT

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

INSTRUCTIONS

HABA G-AlMg3 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	2.60-3.60 %	Copper	Cu	≤0.10 %
Manganese	Mn	≤0.50 %	Titanium	Ti	≤0.15 %
Chromium	Cr	≤0.30 %	Zinc	Zn	≤0.20 %
Iron	Fe	≤0.40 %	Other elements together		≤0.15 %
Silicium	Si	≤0.40 %	Other elements individually		≤0.05 %

HABA Solutions in plates

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