

HABA G-AIMg3

Milled aluminium casting plates
cut to size

G-AIMg3 is a naturally hardened aluminium casting plate which fulfils the most demanding machinability and dimensional stability requirements. 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 homogeneous structure. Together with the narrow alloy setting, this unique character gives our evolution the excellent technological properties.

FINISHES

Thickness	precisely milled Ra0.8 (N6)
tolerance	+/-0.1 mm
protective film	on both sides
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 special thicknesses and tolerances on request.

TECHNICAL SPECIFICATIONS

Tensile strength R_m	190-230 (N/mm ²)
Yield strength $R_{p0.2}$	≥80 (N/mm ²)
Breaking strain ($L_o = 5 d_o$) A_5	6-10 %
Brinell hardness (HBS)	~50
Density	2.66 kg/dm ³
E-module	~70.000 N/mm ²
Thermal conductivity coefficient	140-160 W/mK
Thermal expansion coefficient	24 x 10 ⁻⁶ /K
Electrical conductivity	20-23 m/Ω mm ²
State	homogenised, O3

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 %

DIN Material no.	3.3535
Designation	Cast plate, similar: EN AW-5754 EN AW-AIMg3
Material code	AIMg3
State	homogenised, O3

MATERIAL IN USE

Plant and apparatus construction
Jig manufacturing
Prototype construction
Mechanical engineering

APPLICATIONS

Base plates
Rotary tables
Side walls

PROPERTIES

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

SURFACE TREATMENT

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

INSTRUCTIONS

HABA G-AIMg3 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.

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.

