HABA HC5083

Milled aluminium 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

HABA HC5083 is a naturally hard horizontally casted aluminium plate that meets the highest requirements for machinability and dimensional stability. 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 excellent guarantee for the excellent properties, homogeneous microstructure as well as gas and vacuum tightness. The high microstructure quality ensures good results in surface finishing.

FINISHES

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
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

FINELY MILLED BLANKS

We also produce other thicknesses, tolerances and plates cut by band saw on request.

TECHNICAL SPECIFICATIONS

Tensile strength R_m	250 - 290 (N/mm²)
Yield strength $R_{p0.2}$	110 - 135 (N/mm²)
Breaking strain (L_o = 5 d_o) A_5	>12 %
Brinell hardness (HBS)	70 - 75
Density	2.66 kg/dm³
E-module	~71.000 N/mm²
Thermal conductivity coefficient	110-140 W/mK
Thermal expansion coefficient	24 x 10^{-6}/K
Electrical conductivity	14-19 m/Ω mm²
State	homogenised and stress-annealed, O3

INSTRUCTIONS

HABA HC5083 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	very good
MIG/TIG weldability	good
Weatherproofness	very good
Seawater resistance	very good
Contact with foodstuffs	yes

SURFACE TREATMENT

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

HABA Solutions in plates

V. 2024_08