HABA Alu28

Milled rolled aluminium plates cut to size

DIN Material no.	3.3547
Designation	EN AW-5083 EN AW-AlMg4.5Mn0.7
Material code	AlMg4.5Mn
State	H111

Alu28 is an annealed, naturally hard rolled plate with a precisely milled surface. The plates have an excellent parallelism, are easy to machine and dimensionally stable.

FINISHES

Thickness	precisely milled Ra0.8 (N6)
Tolerance	+/-0.1 mm
Protective film	one-sided
Cardboard	one-sided
Parallelism	≤0.1 mm
Flatness	≤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 other thicknesses and tolerances on request.

TECHNICAL SPECIFICATIONS

Tensile strength	R_m	255-350 (N/mm²)
Yield strength	$R_{p0.2}$	≥105 (N/mm²)
	typical values	140-200 (N/mm²)
Breaking strain (L_o = 5 d_o)	A_5	≥12 %
	typical values	17-22 %
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		24.2 x 10^{-6}/K
Electrical conductivity		16-19 m/Ω mm²
State		H111 (soft)

INSTRUCTIONS

HABA Alu28 is well suited for machining. 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 and sample moulds

PROPERTIES

Strength in the core of thicker plates	consistent
Machinability	good
Dimensional stability	good
Weldability (WIG/MIG)	good
Weatherproofness	excellent
Seawater resistance	excellent
Contact with foodstuffs	yes
Tenacity	high
Elongation	high

SURFACE TREATMENT

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

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.

HABA Solutions in plates

V. 2025_03_24