

HABA Alu6082

As-rolled or milled rolled aluminium plates
cut to size

DIN Material no.	3.2315
Designation	EN AW-6082 EN AW-AISI1MgMn
Material code	AlMgSi1
State	T6/T651

Alu6082 is an artificially aged rolled plate with a precisely milled or rolled surface. The material is very easy to work and has medium to good dimensional stability. It has outstanding corrosion resistance against weather and seawater.

FINISHES

Thickness
Toleranz
protective film
cardboard
Parallelism
Evenness

MILLED ROLLED BLANKS

precisely milled $\leq Ra0.8$ (N6)
+/-0.1 mm
one-sided
one-sided
 ≤ 0.05 mm
 ≤ 0.2 mm

AS-ROLLED BLANKS

Thickness
Parallelism
Evenness

as-rolled EN 485-3/4
EN 485-3/4 ($\leq 0.2/100$)
 ≤ 0.5 mm

MILLED AND AS-ROLLED BLANKS

Length/width
HABA standard tolerance
Customer-specific tolerance

Ra3.2-6.3 cut with a
precision circular saw
nominal size +0.8/+0.3 mm
within a tolerance field of 0.4 mm

We also produce other thicknesses and tolerances on request.

TECHNICAL SPECIFICATIONS

Tensile strength R_m	275-350 (N/mm ²)
Yield strength $R_{p0.2}$	240-310 (N/mm ²)
Breaking strain ($L_o = 5 d_o$) A_5	6-10 %
Brinell hardness (HBS)	84-104
Density	2.7 kg/dm ³
E-module	~70.000 N/mm ²
Thermal conductivity coefficient	170-220 W/mK
Thermal expansion coefficient	23.4 x 10 ⁻⁶ /K
Electrical conductivity	24-32 m/Ω mm ²
State	T6 <10 mm T651 >10 mm

CHEMICAL COMPOSITION

Magnesium	Mg	0.60-1.20 %	Copper	Cu	≤ 0.10 %
Manganese	Mn	0.40-1.00 %	Titanium	Ti	≤ 0.10 %
Chromium	Cr	≤ 0.25 %	Zinc	Zn	≤ 0.20 %
Iron	Fe	≤ 0.50 %	Other elements together		≤ 0.15 %
Silicium	Si	0.70-1.30 %	Other elements individually		≤ 0.15 %

MATERIAL IN USE

Apparatus construction
Mechanical engineering
Jig manufacturing
Vehicle construction
Special purpose machinery
Plant construction
Mould construction of all kinds

APPLICATIONS

Base plates
Side walls
Vehicle parts
Blow and foaming moulds
Machined and engineered parts of all kinds

PROPERTIES

machinability	good
dimensional stability	medium - good
MIG/TIG weldability	very good
Weatherproofness	very good
Seawater resistance	very good
Meerwasserbeständigkeit	sehr gut

SURFACE TREATMENT

decorative eloxadisation	good
protective anodisation	very good
galvanic coatings	very suitable
chemical nickel-plating	very suitable

INSTRUCTIONS

Use tools for working aluminium with a cutting speed >2000 m/min.

