

HABA Alu7075

As-rolled or milled, high-tensile aluminium rolled plates cut to size

| | |
|------------------|---------------------------------|
| DIN Material no. | 3.4365 |
| Designation | EN AW-7075 EN AW-AlZn5.5MgCu |
| Material code | AlZnMgCu1.5 |
| State | T6/T651 |

Alu7075 is an artificially aged rolled plate with very high tensility and hardness. The material can be easily machined. Slight bending is possible.

FINISHES

Thickness
Tolerance
Protective film
cardboard
Parallelism
Evenness

MILLED ROLLED BLANKS

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

AS-ROLLED BLANKS

Thickness
Tolerance
Parallelism
Parallelism

as-rolled
+1.5/-0.5 mm oder EN 485-3/4
 \leq 1 mm on the plate or \leq 0.2/100 mm
or EN 485-3/4
 \leq 0.5 mm or EN 485-3/4

MILLED AND AS-ROLLED BLANKS

Length/width
Customer-specific tolerance
Kundenspezifische Toleranz

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

| | | | |
|--|-----------------------------------|----------------|------------|
| Thickness (mm) | <50 | 50-100 | >100 |
| Tensile strength R_m (N/mm ²) | \geq 500 | \geq 480-500 | \geq 400 |
| Yield strength $R_{p0.2}$ (N/mm ²) | \geq 450 | \geq 390-430 | \geq 280 |
| Breaking strain ($L_o = 5 d_o$) | | | |
| A_5 | 3-8% | \geq 2% | \geq 2% |
| Brinell hardness (HBS) | \geq 140 | \geq 130 | \geq 120 |
| Density | 2.81 kg/dm ³ | | |
| E-module | ~71.000 N/mm ² | | |
| Thermal conductivity coefficient | 130-160 W/mK | | |
| Thermal expansion coefficient | $23.4 \times 10^{-6}/K$ | | |
| Electrical conductivity | 19-23 m/ Ω mm ² | | |
| State | T6 | <10 mm | |
| | T651 | >10 mm | |

CHEMICAL COMPOSITION

| | | | | | |
|-----------|----|---------------|----------|----|---------------|
| Magnesium | Mg | 2.10-2.90 % | Copper | Cu | 1.20-2.00 % |
| Manganese | Mn | \leq 0.30 % | Titanium | Ti | \leq 0.20 % |
| Chromium | Cr | 0.18-0.28 % | Zinc | Zn | 5.10-6.10 % |
| Iron | Fe | \leq 0.50 % | Ti + Zr | | \leq 0.25 % |
| Silizium | Si | \leq 0.40 % | Rest | | \leq 0.15 % |

MATERIAL IN USE

Vehicle construction
Jig manufacturing
Mechanical engineering
Toolmaking
Mould construction
Aircraft construction

APPLICATIONS

Base plates
Pattern plates
Punches
Machined and engineered parts of all kinds

PROPERTIES

| | |
|---------------|-----------|
| machinability | very good |
| weldability | limited |
| tensility | very high |
| hardness | very high |

SURFACE TREATMENT

| | |
|-------------------------|------------|
| Decorative anodisation | unsuitable |
| Protective anodisation | good |
| Paintwork, coating | good |
| Galvanic coating | good |
| Chemical nickel coating | good |

INSTRUCTIONS

Decreasing rigidity and hardness in the core of thick plates. Above 150 mm thickness, change to G-Alu340 or a naturally hardened 5083 plate.

