

HABA Horizontal Cast 7021

Milled aluminium casting plates | cut to size

Horizontal Cast 7021 is a age-hardened, horizontally cast aluminum plate that meets the most stringent requirements for strength and machining properties. The special manufacturing process is according to strict HABA factory standards. These standards apply to all process steps and are a guarantee for the excellent properties, homogeneous microstructure, and gas- and vacuum tightness. Temper T73 ensures the best corrosion resistance.

FINISHES

| | |
|-----------------------------|------------------------------------|
| Thickness | precisely milled Ra0.8 (N6) |
| Tolerance | +/-0.1 mm |
| Protective film | on both sides |
| 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 |

We also produce other thicknesses and tolerances on request, as well as band-sawn plates and cuts.

TECHNICAL SPECIFICATIONS

| | |
|-------------------------------------|------------------------------|
| Tensile strength R_m | 340-390 (N/mm ²) |
| Yield strength $R_{p0.2}$ | 280-340 (N/mm ²) |
| Breaking strain $(L_o = 5 d_o) A_5$ | 3-6 % |
| Brinell hardness (HBS) | ≥124 |
| Density | 2.77 kg/dm ³ |
| E-module | ~70.000 N/mm ² |
| Thermal conductivity coefficient | 110-120 W/mK |
| Thermal expansion coefficient | 24 x 10 ⁻⁶ /K |
| Electrical conductivity | 20-27 m/Ω mm ² |

INSTRUCTIONS

HABA Horizontal Cast 7021 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 | 1.20-1.80 % | Copper | Cu | ≤0.25 % |
| Manganese | Mn | ≤0.20 % | Titanium | Ti | ≤0.10 % |
| Chromium | Cr | ≤0.25 % | Zinc | Zn | 5.00-6.00 % |
| Iron | Fe | ≤0.40 % | Other elements together | | ≤0.15 % |
| Silicium | Si | ≤0.25 % | Other elements individually | | ≤0.05 % |

| | |
|------------------|--------------|
| DIN Material no. | - |
| Designation | EN AW-7021 |
| Material code | AlZn5.5Mg1.5 |
| State | T73 |

MATERIAL IN USE

Mechanical engineering
Special purpose machinery
Jig manufacturing
Toolmaking
Mould construction
Apparatus construction

APPLICATIONS

Base plates
Rotary tables
Table tops
Foam, deep-draw and sample moulds

PROPERTIES

| | |
|-------------------------|-----------|
| machinability | very good |
| dimensional stability | good |
| MIG/TIG weldability | very good |
| Weatherproofness | good |
| Seawater resistance | good |
| Contact with foodstuffs | no |

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

GAS IMPERMEABILITY

Suitable for vacuum applications

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.

