

HABA HC5754

Milled aluminium casting plates | cut to size

HABA HC5754 is a naturally hardened aluminium casting plate which fulfils the most demanding machinability and dimensional stability requirements. HABA HC5754 is excellent suited for decorative and technical anodizing. The special casting process is the guarantee for the homogenous join and the vacuum tightness.

FINISHES

| | |
|-----------------------------|--|
| Thickness | precisely milled Ra0.8 (N6) |
| Tolerance | +/-0.05 mm |
| Protective film | on both sides |
| 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.

TECHNICAL SPECIFICATIONS

| | | |
|----------------------------------|---------------------|-------------------------------------|
| Tensile strength | R_m | 190-230 (N/mm ²) |
| Yield strength | $R_{p0.2}$ | ≥80 (N/mm ²) |
| Breaking strain | $(L_o = 5 d_o) A_5$ | ≥12 % |
| Brinell hardness | (HBS) | ~55 |
| Density | | 2.66 kg/dm ³ |
| E-module | | 70.500 N/mm ² |
| Thermal conductivity coefficient | | 140-160 W/mK |
| Thermal expansion coefficient | | 24 x 10 ⁻⁶ /K |
| Electrical conductivity | | 17-23 m/Ω mm ² |
| State | | homogenised and stress-annealed, O3 |

INSTRUCTIONS

HC5754 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 | 2.60-3.60 % | Copper | Cu | ≤0.10 % |
| Manganese | Mn | ≤0.50 % | Titanium | Ti | ≤0.15 % |
| Chromium | Cr | ≤0.30 % | Zinc | Zn | ≤0.20 % |
| Iron | Fe | ≤0.40 % | Other elements together | | ≤0.15 % |
| Silicium | Si | ≤0.40 % | Other elements individually | | ≤0.05 % |

| | |
|------------------|--|
| DIN Material no. | 3.3535 |
| Designation | Cast plate, similar: EN AW-5754 EN AW-AMg3 |
| Material code | AMg3 |
| State | homogenised, O3 |

MATERIAL IN USE

Plant and apparatus construction
Vehicle construction
Prototype construction
Mechanical engineering
Architecture

APPLICATIONS

Front panels
Case
Base plates
Side walls

PROPERTIES

| | |
|-------------------------|-----------|
| Machinability | very good |
| Dimensional stability | very good |
| Weldability (WIG/MIG) | good |
| Weatherproofness | very good |
| Seawater resistance | very good |
| Technical anodisation | very good |
| Decorative anodisation | very good |
| Contact with foodstuffs | yes |

SURFACE TREATMENT

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

HABA HC5754 is primarily suitable for decorative applications.

Recommendations for the anodising process can be found in the HABA anodising guide or contact your anodising company.

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.

