

McBasic

Milled aluminium cast plates
cut to size

Vehicle production
Jig and fixture construction
Mechanical engineering
Mould construction

Properties of McBasic

McBasic is a naturally hardened casting plate with good machinability and dimensional stability.

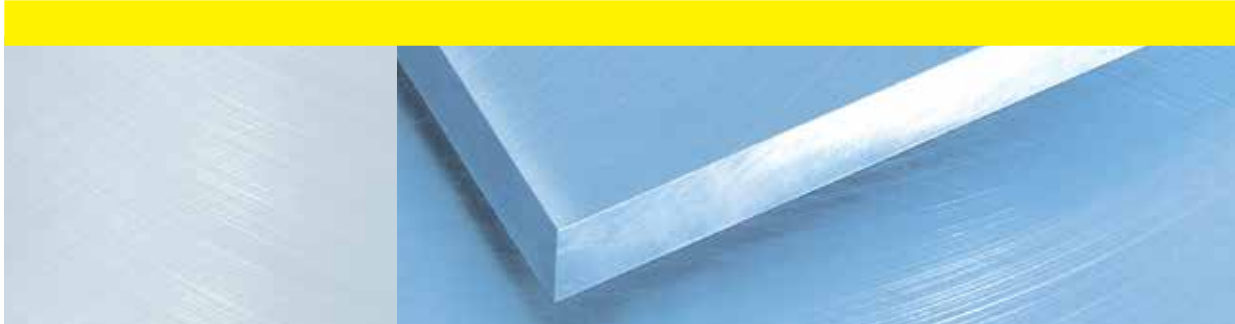
Ideally suited for price-sensitive products in larger quantities.



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Cast plate, similar:
EN AW-5083
EN AW-AIMg4.5Mn0.7
Material code: AIMg4.5Mn
Material no.: 3.3547
State: homogenised



Finishes

Thickness precisely milled $\leq Ra0.8$ (N6)
tolerance ± 0.1 mm
protective film on both sides

Parallelism

≤ 0.1 mm

Evenness

≤ 0.4 mm

Length/width

Ra3.2-6.3

cut with precision circular saw

HABA standard tolerance

nominal size $\pm 1/0$ mm

Surface treatment

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

Instructions

McBasic 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.

Technical specifications

Typical values

Tensile strength

$R_m \geq 250$ (N/mm²)

Yield strength

$R_{p0.2} \geq 115$ (N/mm²)

Breaking strain ($L_0 = 5 d_0$)

A_5 6-10 %

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

$24 \times 10^{-6}/K$

Chemical composition

Mg 4.0-4.9 %	Cu ≤ 0.10 %
Mn 0.4-1.0 %	Ti ≤ 0.15 %
Cr 0.05-0.25 %	Zn ≤ 0.25 %
Fe ≤ 0.40 %	other elements
Si ≤ 0.40 %	single ≤ 0.05 %
	together ≤ 0.15 %
	rest alu

Material in use

Plant and apparatus construction
Vehicle construction
Jig manufacturing
Mechanical engineering
Low-temperature technology

Applications

Base plates
Rotary tables
Side walls
Machined and engineered parts
of all kinds

Properties

good machinability
good dimensional stability
good MIG/TIG weldability
excellent corrosion resistance
against weather and seawater

