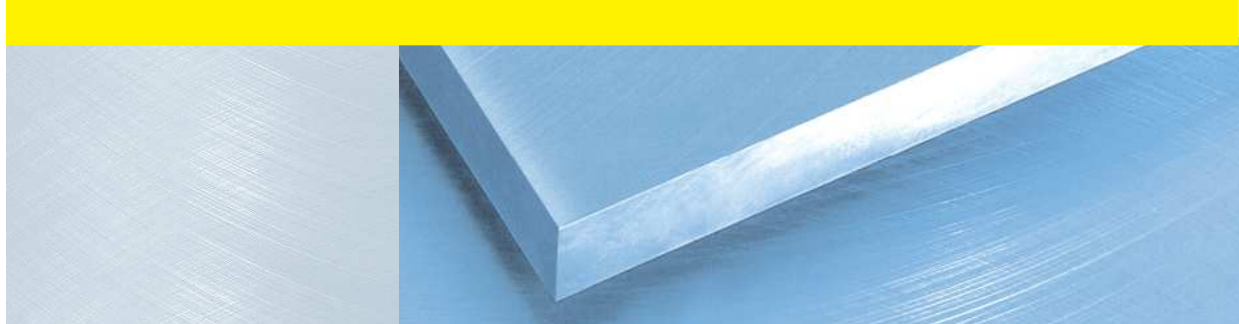


# HABA Planalu N and G

EN AW-5083  
EN AW-AMg4.5Mn0.7  
Material code: AlMg4.5Mn  
Material no.: 3.3547  
State: H111

Rolled aluminium plates  
cut to size



## Finishes

### Thickness

rolled EN 485-3/4

### Parallelism

EN 485-3/4  
( $\leq 0.2/100$ )

### Evenness

EN 485-3/4

### Length/width

Ra3.2-6.3  
cut with a precision circular saw  
cut edges deburred

### HABA standard tolerance

nominal size  $+0.8/+0.3$  mm

### Customer-specific tolerance

within a tolerance field of 0.4 mm

## Planalu G

is additionally low-tension  
annealed

## Surface treatment

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

## Instructions

HABA Planalu N and G are well suited for machining.  
Use tools for working aluminium with a cutting speed  $>2000$  m/min.  
Threads are produced favourably with thread moulders.

## Technical specifications

### Tensile strength

$R_m$  255-350 (N/mm<sup>2</sup>)

### Yield strength

$R_{p0.2}$   $\geq 105$  (N/mm<sup>2</sup>)  
typical values 140-200 (N/mm<sup>2</sup>)

### Breaking strain ( $L_0 = 5 d_0$ )

$A_5$   $\geq 12$  %  
typical values 17-22%

### Brinell hardness

(HBS)  $\geq 70$

Density 2.66 kg/dm<sup>3</sup>

E-module  $\sim 70.000$  N/mm<sup>2</sup>

### Thermal conductivity coefficient

110-140 W/mK

### Thermal expansion coefficient

$24.2 \times 10^{-6}/K$

### Electrical conductivity

16-19 m/ $\Omega$  mm<sup>2</sup>

### State

H111 (soft)

## Chemical composition

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

## Material in use

Plant and apparatus construction  
Vehicle construction  
Jig manufacturing  
Prototype construction  
Mechanical engineering  
Toolmaking and mould construction  
Ship and offshore construction  
Low-temperature technology

## Applications

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

## Properties

consistent strength in the core of thicker plates  
good machinability  
good dimensional stability  
good MIG/TIG weldability  
excellent corrosion resistance against weather and seawater  
high tenacity and elongation

