

## Alloy Designation

ALUMINIUM Quality according to DIN EN 573-3	PREMIUM EN AW-2007
Chem. Designation according to DIN EN 573-3	EN AW- AlCu4PbMgMn
Abbreviation according to DIN 1712-3	AlCuMgPb
Material No. / Werkstoff-Nr. according to DIN 1712-3	3.1645

## Specification



Precision round aluminium [PRA]  
drawn  
Round aluminium [RA]  
pressed  
L: 500 mm  
L: 1.000 mm

## Chemical composition EN AW 2007 (reference values as weight percent)

Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Pb
0 - 0,8	0 - 0,8	3,3 - 4,6	0,5 - 1,0	0,4 - 1,8	0 - 0,1	0 - 0,2	0 - 0,8	0 - 0,2	0,8 - 1,5

## Mecanical properties (ambient temperatur / thickness dependent)

Tensile strength $R_m$	approx. 370 - 470 [N/mm <sup>2</sup> ]
Yield strength $R_{p0,2}$	210 - 250 [MPa]
Elongation $A_{50}$	6 - 8 [%]
Hardness (delivery condition)	max. 130 [HB]

## Physical properties (ambient temperatur / characteristic values)

Density	2,88 [g/cm <sup>3</sup> ]
Modulus of elasticity	~ 70 [GPa]
Electrical conductivity	18 - 22 [m/Ω · mm <sup>2</sup> ]
Thermal expansion coefficient	23,0 [K <sup>-1</sup> · 10 <sup>-6</sup> ]
Thermal conductivity	130 - 160 [W/m · K]
Specific thermal capacity	900 [J/kg · K]

## Technical properties

The age-hardenable alloy EN AW 2007 (AlCuMgPb) is the mainly used free-cutting alloy. It is ideal for machining due to it's high strenght and short chip-break and makes it possible to machine it on high-speed automatic lathes and multi-spindle machines. Due to its low corrosion resistance it is recommended to anodise finished parts for protection.

## Applications

Drilling-, turning- and milling properties (free cutting alloy), mechanical engineering and jigs and fixtures, screws, nuts.

