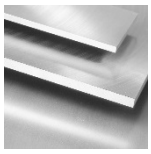
Alloy Designation

ALUMINIUM Quality according to DIN EN 573-3	PREMIUM EN AW-6082
Chem. Designation according to DIN EN 573-3	EN AW-AlSi1MgMn
Abbreviation according to DIN 1712-3	AlMgSi1
Material No. / Werkstoff-Nr. according to DIN 1712-3	3.3547

Specification



ALU-Präz® [ALU]
L: 500 mm
L: 1.000 mm

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

Chemical composition EN AW 6082 (reference values as weight percent)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
0,7 - 1,3	0 - 0,5	0 - 0,1	0,4 - 1,0	0,4 - 1,0	0 - 0,25	0 - 0,2	0 - 0,1

Mecanical properties (ambient temperatur / thickness dependent)

Tensile strength t R_m	approx. 300 - 350 [N/mm²]
Yield strength $R_{p0,2}$	240 - 260 [MPa]
Elongation A_{50}	7 - 10 [%]
Hardness (delivery condition)	max. 105 [HB]

Physical properties (ambient temperatur / characteristic values)

Density	2,70 [g/cm³]
Modulus of elasticity	70 [GPa]
Electrical conductivity	24 - 32 [m/Ω · mm²]
Thermal expansion coefficient	23,4 [$K^{-1} \cdot 10^{-6}$]
Thermal conductivity	170 - 220 [W/m · K]
Specific thermal capacity	896 [J/kg · K]

Technical properties

The alloy EN AW 6082 is one of the most frequently used age-hardenable wrought aluminium alloys. Depending on the application, medium to high strength can be achieved with this alloy. In addition, this material has a high corrosion resistance and is very easy to weld and polish.

Applications

Food industry, decoration, vehicle construction, naval construction, railway vehicles, boiler and tank construction, offshore, aviation and aerospace, defence technology.

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