

Alloy Designation

ALUMINIUM Quality according to DIN EN 573-3	PREMIUM EN AW-2011
Chem. Designation according to DIN EN 573-3	EN AW-AlCu6BiPb
Abbreviation according to DIN 1712-3	AlCuBiPb
Material No. / Werkstoff-Nr. according to DIN 1712-3	3.1655

Specification



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

Chemical composition EN AW 2011 (reference values as weight percent)

Si	Fe	Cu	Bi	Zn	Pb
0 - 0,4	0 - 0,7	5,0 - 6,0	0,2 - 0,6	0 - 0,3	0,2 - 0,6

Mecanical properties (ambient temperatur / thickness dependent)

Tensile strength R_m	ca. 370 - 410 [N/mm ²]
Yield strength $R_{p0,2}$	210 - 250 [MPa]
Elongation A_{50}	6 - 8 [%]
Hardness (delivery condition)	max. 120 [HB]

Physical properties (ambient temperatur / characteristic values)

Density	2,82 [g/cm ³]
Modulus of elasticity	72,5 [GPa]
Electrical conductivity	24 - 32 [m/Ω · mm ²]
Thermal expansion coefficient	23,0 [K ⁻¹ · 10 ⁻⁶]
Thermal conductivity	170 - 220 [W/m · K]
Specific thermal capacity	864 [J/kg · K]

Technical properties

The alloy EN AW 2011 is an enhancement of the EN AW 2007. It is especially suitable for high cutting speeds due to the very short chip-break. This material can also be heat treated.

Applications

Drilling-, turning- and milling properties (free cutting alloy), mechanical engineering, aviation and aerospace, defence technology.

