

# Material data sheet

## EN AW-2011 [AlCu6BiPb] Pb max.0,4%

Compliance with the requirements of the EU directives RoHS 2011/65/EU and ELV 2000/53/EC

### 1 ) Chemical composition according to DIN EN 573-3 [% by mass, remainder Al]

%	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Bi	Pb	Each
<b>min.</b>	-	-	5.0	-	-	-	-	-	-	0.20	0.20	-
<b>max.</b>	0.40	0.7	6.0	-	-	-	-	0.30	-	0.60	0.40	0.15

### 2 ) Mechanical properties according to DIN EN 754-2 drawn / DIN EN 755-2 extruded

Temper	Dimensions in mm		R <sub>m</sub> MPa		R <sub>p0.2</sub> MPa		A%	A <sub>50mm</sub> %	HBW
	D <sup>a</sup>	S <sup>b</sup>	min.	max.	min.	max.	min.	min.	Typical value
<b>T3</b>	≤40	≤40	320	-	270	-	10	8	90
	40<D≤50	40<S≤50	300	-	250	-	10	-	90
	50<D≤80	50<S≤80	280	-	210	-	10	-	90
<b>T8</b>	≤80	≤80	370	-	270	-	8	6	115
<b>T6<sup>c</sup></b>	≤75	≤60	310	-	230	-	8	6	110
	75<D≤200	-	295	-	195	-	6	-	110

D<sup>a</sup>= Diameter for round rod / S<sup>b</sup>= Width across flat for square and hexagonal rod, Thickness for rectangular rod / c Properties may be obtained by press quenching.

Classification: 1=very good / 6=insufficient

Physical properties		General properties			
Density g/cm <sup>3</sup>	2.82	<b>Corrosion resistance to atmospheric influences seawater</b>  <b>Brazeability:</b> Brazing with flux Brazing without flux Friction soldering Soft soldering with flux	4 5 6 - 4 -	<b>Surface treatment</b> Protection anodizing Decorative anodizing Painting/Coating	5 6 4
Modulus of elasticity MPa	72500				
Thermal conductivity W/(m K)	170-220				
Coefficient of thermal expansion (20-100 °) 10 <sup>-6</sup> /K	23.4				
Electrical conductivity MS/m	24-32				
Weldability		Machining properties			
Gas	-	Annealed			-
TIG	6	Work hardened			-
MIG	6	Precipitation hardened			1
Resistance fusion welding	6	Cutting speed v=m/min			60-300
		Chip shape			Needles

Errors and changes excepted/This document is not subject to revision.