

# Material data sheet

## EN AW-6061 [EN AW-Al Mg1SiCu]

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>	0.40	-	0.15	-	0.8	0.04	-	-	-	-	-	-
<b>max.</b>	0.8	0.70	0.40	0.15	1.2	0.35	-	0.25	0.15	-	-	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>		A% min.	A <sub>50mm</sub> %	HBW
	D <sup>a</sup>	S <sup>b</sup>	min.	max.	min.	max.	min.	min.	Typical value
<b>T6<sup>c</sup></b>	≤80	≤80	290	-	240	-	10	8	95
<b>T6<sup>c</sup></b>	≤200	≤200	260	-	240	-	8	6	95

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

Physikalische Eigenschaften		Allgemeine Eigenschaften			
Density g/cm <sup>3</sup>	2.70	<b>Corrosion resistance to</b> atmospheric influences seawater	2 2/3	<b>Surface treatment</b> Protection anodizing Decorative anodizing Painting/Coating	1 3 2
Modulus of elasticity MPa	70000				
Thermal conductivity W/(m K)	170-200	<b>Brazeability:</b> Brazeability: Brazeability: Friction soldering Soft soldering with flux	2 4 2 3		
Coefficient of thermal expansion (20-100 °) 10 <sup>-6</sup> /K	23.0				
Electrical conductivity MS/m	22-30				
Weldability		Machining properties			
Gas	3	Annealed			4
TIG	2	Work hardened			-
MIG	1	Precipitation hardened			2
Resistance fusion welding	3	Cutting speed v=m/min			ns
		Chip shape			ns

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