

# Material data sheet

## EN AW-2017A [EN AW-Al Cu4MgSi]

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	Remarks	Each
<b>min.</b>	0.20	-	3.5	0.40	0.40	-	-	-	-	-	-
<b>max.</b>	0.8	0.7	4.5	1.0	1.0	0.10	-	0.25	-	0.25 Zr + Ti	0.15

### 2 ) Mechanical properties according to DIN EN 485-2

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>T4/T451</b>	>0,4	1,5	390	-	245	-	-	14	110
	1,5	6,0	390	-	245	-	-	15	110
	6,0	12,5	390	-	260	-	-	13	111
	12,5	40,0	390	-	250	-	12	-	110
	40,0	60,0	385	-	245	-	12	-	108
	60,0	80,0	370	-	240	-	7	-	-
	80,0	120,0	360	-	240	-	6	-	105
	120,0	150,0	350	-	240	-	4	-	101
	150,0	180,0	330	-	220	-	2	-	-
	180,0	200,0	300	-	200	-	2	-	-

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>	2.80	<b>Corrosion resistance to atmospheric influences seawater</b>	4	<b>Surface treatment</b>	2		
Modulus of elasticity MPa	72500						
Thermal conductivity W/(m K)	130-200	5	5	Decorative anodizing	6		
Coefficient of thermal expansion (20-100 °) 10 <sup>-6</sup> /K	23.0	<b>Brazeability:</b> Brazing with flux Brazing without flux Friction soldering Soft soldering with flux	6 6 3 6	Painting/Coating	3		
Electrical conductivity MS/m	18-28						
Weldability				Machining properties			
Gas	6			Bending			2
TIG	6	Spinning			3		
MIG	6	Deep drawing up to (temper)			3(O)		
Resistance fusion welding	1						

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