

# Material data sheet

## EN AW 7022 [EN AW-Al Zn5Mg3Cu]

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>	-	-	0.50	0.10	2.6	0.10	-	4.3	-	-	-
<b>max.</b>	0.50	0.50	1.0	0.40	3.7	0.30	-	5.2	-	0.20 Ti + Zr	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>T6<sup>c</sup></b>	≤80	≤80	460	-	380	-	8	6	133
<b>T6/T6510</b>	≤80	≤80	490	-	420	-	7	5	133
<b>T6511<sup>c</sup></b>	80<D≤200	80<S≤200	470	-	400	-	7	-	133

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>	2.78	<b>Corrosion resistance to</b> atmospheric influences 4 seawater 5  <b>Brazeability:</b> Brazing with flux 6 Brazing without flux 6 Friction soldering 6 Soft soldering with flux 6	<b>Surface treatment</b> Protection anodizing 2 Decorative anodizing 6 Painting/Coating 3		
Modulus of elasticity MPa	70000				
Thermal conductivity W/(m K)	130-160				
Coefficient of thermal expansion (20-100 °) 10 <sup>-6</sup> /K	23.6				
Electrical conductivity MS/m	19-23				
Weldability		Machining properties			
Gas	6	Annealed			-
TIG	6	Work hardened			-
MIG	6	Precipitation hardened			2
Resistance fusion welding	2	Cutting speed v=m/min			300-800
		Chip shape			Curls/spirals

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