

Material data sheet

EN AW 5754 [EN AW-AI Mg3]

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
min.	-	-	-	-	2.6	-	-	-	-	-	-
max.	0.40	0.40	0.10	0.50	3.6	0.30	-	0.20	0.15	-	0.15

2) mechanische Eigenschaften nach DIN EN 754-2 gezogen / DIN EN 755-2 gepresst

Temper	Dimensions in mm		R _m MPa		R _{p0,2} MPa		A% min.	A _{50mm} %	HBW
	D ^a	S ^b	min.	max.	min.	max.	min.	min.	Typical value
O/H111	≤ 80	≤ 60	180	250	80	-	16	14	45
H 14	≤ 25	≤ 5	240	290	180	-	16	3	75
H112	≤150	≤150	180	-	80	-	14	12	47
	150<D≤250	150<S≤250	180	-	70	-	13	-	47
O/H111	≤150	≤150	180	250	80	-	17	15	45

D^a = Diameter for round rod / S^b = 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 ³	2.66	Corrosion resistance to atmospheric influences seawater	1 1-2	Surface treatment Protection anodizing Decorative anodizing Painting/Coating	1 2/EQ:1 3
Modulus of elasticity MPa	70500				
Thermal conductivity W/(m K)	140-160	Brazeability: Brazing with flux Brazing without flux Friction soldering Soft soldering with flux	5 4 3 5		
Coefficient of thermal expansion (20-100 °) 10 ⁻⁶ /K	23.9				
Electrical conductivity MS/m	20-23				
Weldability		Machining properties			
Gas	2	Annealed			3
TIG	1	Work hardened			2
MIG	1	Precipitation hardened			-
Resistance fusion welding	3	Cutting speed v=m/min			300-1500
		Chip shape			Long spirals

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