

Material data sheet

EN AW 5019 [EN AW-Al Mg 5]

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	Bemerkung	Each
min.	-	-	-	0.10	4.5	-	-	-	-	-	-
max.	0.40	0.50	0.10	0.6	5.6	0.20	-	0.20	0.20	0.10-0.6 Mn+Cr	0.15

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

Temper	Dimensions in mm		R _m MPa		R _{p0,2} MPa		A%	A _{50mm} %	HBW
	D ^a	S ^b	min.	max.	min.	max.	min.	min.	Typical value
O/H111	≤80	≤60	250	320	110	-	16	14	65
H12	≤40	≤25	270	350	180	-	8	7	85
H 112	≤200	≤200	250	-	110	-	15	13	65
O/H111	≤200	≤200	250	320	110	-	15	13	65

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	2.64	Corrosion resistance to atmospheric influences seawater	1	Surface treatment	1
Modulus of elasticity MPa	70000				
Thermal conductivity W/(m K)	110-140	Brazeability:	1	Decorative anodizing	4
Coefficient of thermal expansion (20-100 °) 10 ⁻⁶ /K	24.1				
Electrical conductivity MS/m	15-19	Brazing with flux	5	Painting/Coating	5
		Brazing without flux	5		
		Friction soldering	3		
		Soft soldering with flux	5		
Weldability		Machining properties			
Gas	4	Annealed			4
TIG	2	Work hardened			3
MIG	2	Precipitation hardened			-
Resistance fusion welding	2	Cutting speed v=m/min			-
		Chip shape			-

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