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Material data sheet

EN AW 1050A [EN AW-Al 99,5]

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	Remarks	Each
min.	-	-	-	-	-	-	-	-	-	-	-
max.	0.25	0.40	0.05	0.05	0.05	-	-	0.07	0.05	-	0.03

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	60	95	-	-	25	22	20
O/H111	All	All	60	95	20	-	25	23	20

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/cm³	2.70	**Corrosion resistance to**		**Surface treatment**	
Modulus of elasticity MPa	69000	atmospheric influences	2	Protection anodizing	1
Thermal conductivity W/(m K)	210-220	seawater	3	Decorative anodizing	2/EQ1
Coefficient of thermal expansion (20-100 °) 10^{-6}/K	23.5	**Brazeability:**		Painting/Coating	1
Electrical conductivity MS/m	34-36	Brazing with flux	1		
		Brazing without flux	1		
		Friction soldering	1		
		Soft soldering with flux	1		

Weldability		**Machining properties**	
Gas	2	Annealed	5
TIG	2	Work hardened	3
MIG	3	Precipitation hardened	-
Resistance fusion welding	5		

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

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