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Material data sheet

EN AW 5754 [EN AW-Al 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) Mechanical properties according to DIN EN 485-2

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	0,2	0,5	190	240	80	-	-	12	52
	0,5	1,5	190	240	80	-	-	14	52
	1,5	3,0	190	240	80	-	-	16	52
	3,0	6,0	190	240	80	-	-	18	52
	6,0	12,5	190	240	80	-	-	18	52
	12,5	100,0	190	240	80	-	17	-	52
H22/H32	0,2	0,5	220	270	130	-	-	7	63
	0,5	1,5	220	270	130	-	-	8	63
	1,5	3,0	220	270	130	-	-	10	63
	3,0	6,0	220	270	130	-	-	11	63
	6,0	12,5	220	270	130	-	-	10	63
	12,5	40,0	220	270	130	-	9	-	63
H18	0,2	0,5	290	-	250	-	-	1	88
	0,5	1,5	290	-	250	-	-	2	88
	1,5	3,0	290		250	-	-	2	88

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	2.66	**Corrosion resistance to**		**Surface treatment**	
Modulus of elasticity MPa	70500	atmospheric influences	1	Protection anodizing	1
Thermal conductivity W/(m K)	140-160	seawater	1-2	Decorative anodizing	2/EQ:1
Coefficient of thermal expansion (20-100 °) 10^{-6}/K	23.9			Painting/Coating	3
Electrical conductivity MS/m	20-23	**Brazeability:**			
		Brazing with flux	5		
		Brazing without flux	4		
		Friction soldering	3		
		Soft soldering with flux	5		

Weldability		**Machining properties**	
Gas	2	Bending	2
TIG	1	Spinning	3
MIG	1	Deep drawing up to (temper)	2 (O)
Resistance fusion welding	3		

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

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