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Material data sheet

EN AW 5005 [EN AW-Al Mg 1]

Compliance with the requirements of the EU directives RoHS 2011/65/EU and ELV 2000/53/EG

1) Chemical composition according to DIN EN 573-3 [% by mass, reminder Al]

%	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Remarks	Each
min.	-	-	-	-	0.50	-	-	-	-	-	-
max.	0.30	0.7	0.20	0.20	1.1	0.10	-	0.25	-	-	0.15

2) Mechanical properties according to EN 485-2

Temper	Dimensions mm		R_m MPa		$R_{p0,2}$ MPa		A%	A_{50mm}%	HBW
	über	bis	min.	max.	min.	max.	min.	min.	Typical value
H24/H34	0.2	0.5	145	185	110	-	-	3	47
	0.5	1.5	145	185	110	-	-	4	47
	1.5	3.0	145	185	110	-	-	5	47
	3.0	6.0	145	185	110	-	-	6	47
	6.0	12.5	145	185	110	-	-	8	47

Classification: 1=very good / 6=insufficient

Physical properties		**General properties**			
Density g/cm³	2.70	**Corrosion resistance to**		**Surface treatment**	
Modulus of elasticity MPa	69500	atmospheric influences	1	Protection anodizing	1
Thermal conductivity W/(m K)	160-220	seawater	2	Decorative anodizing	3(EQ:1)
Coefficient of thermal expansion (20-100 °) 10^{-6}/K	23.6			Painting/Coating	1
Electrical conductivity MS/m	23-31	**Brazeability:**			
		Brazing with flux	3		
		Brazing without flux	4		
		Friction soldering	2		
		Soft soldering with flux	4		

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

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