



CHEMICAL COMPOSITION

Aluminium and aluminium alloys

Alloy designation:

EN AW	Al Mg1(C)
Old designation	Al Mg1
Material no. according to DIN	3.3315
Great Britain BS	N41 ¹
Italy UNI	9005/1 ¹
Spain	L-3350 ¹
Sweden	144106 ¹
Norway	
France AFNOR	A-G0,6 ¹

¹ = similar

Typical physical properties:

Density [g/cm ³]	2,69	
Elastic modulus [GPa]	69,5	
Thermal conductivity [W/m*K]	160 – 220	
Thermal expansion coefficient [K ⁻¹ *10 ⁻⁶]	-50°C – 20°C	21,8
	20°C – 100°C	23,6
	20°C – 200°C	24,5
	20°C – 300°C	25,5
Specific heat J/(kg * K)		
Electrical conductivity [m/Ω*mm ²]	23 – 31	
Shear modulus [GPa]	26,1	

Chemical composition* (EN 573-3):

Specifications in %											Remainder: Aluminium		Other	
Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	Note	Individual	Total ²	
0,30	0,45	0,05	0,15	0,70 – 1,1	0,10	-	0,20	-	-	-	-	0,05	0,15	

^x Chemical specifications as perc. of weight. If no ranges are specified, the alloy content has the maximum value.

² Includes all items listed for which no limit values are specified.

Special features of this material:

- Very suitable for decorative anodising for EQ
- Very good corrosion resistance to a normal atmosphere
- Good formability
- Good welding properties

Applications:

- Food industry (containers · boxes · packaging)
- Building industry (panelling · roofing)
- Furniture industry
- Refrigeration and air conditioning systems

Available forms:

Sheets · Cuttings · Circular blanks · Rings · Parts from drawings

Heat treatment:

Soft annealing / recrystallisation annealing	
Annealing temperature	360°C – 380°C
Heating-up time	1 – 2 hours
Cooling conditions	kiln - uncontrolled

Other data:

Processing / machinability

Soft annealed	4
Work-hardened	2
Heat-treated	-
Dimensional stability	-
Erosion	1

Surface treatment

Anodising - (protective anodisation)	1
Special anodising quality (EQ) ^{EQ}	1
Anodising - decorative	2 – 3
Painting / coating	1 – 2
Polishing	2

Welding

	Filler metal
Gas	SG-Al Mg3
WIG	
MIG	
Resistance welding	

Solder

Brazing with flux	5
Brazing without flux	4
Abrasion soldering	2
Soft soldering with flux	3

Legend:

- 1 very good
- 2 good
- 3 moderate
- 4 poor
- 5 unsuited
- EQ anodising quality must be ordered separately and confirmed

Hardening	
Solution annealing	-
Quenching	-
Natural ageing treatment	-
Artificial ageing treatment	-

Corrosion resistance

In a normal atmosphere/ weather conditions	1
Sea water atmosphere	2

Metal forming

Cold forming	Delivery condition	
Bending	2	
Pressure forming	3	
Deep drawing (condition-based)	2	O
Upsetting (condition-based)	2	O
Impact extrusion	3	
Hot forming		
Drop forging	-	
Extrusion moulding	2	
Hammer forging	-	

Suitable for food industry according to DIN EN 602	yes
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The specifications in our data sheets are subject to correction and are only valid as references. Liability is excluded in this regard. We reserve the right to make changes to the standards and informative values. The agreements of our order confirmation are always authoritative. With regard to anodic oxidisability, we point out that we accept no liability for the anodisation result and the colour formation for decorative applications. The same applies to the corrosion resistance. Special arrangements must be made in writing.