Technical Datasheet

EN AW- 2014 0 / AlCu4SiMg

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BRIEF DESCRIPTION

EN AW 2014 sheets and plates are mainly used for aerospace applications, due to its strength and high hardness.

Typical applications include various supports and structural parts of machines.

PROCESSING METHODS

Weldability

- TIG/MIG — difficult
- By resistance — difficult

Anodising

- technical — good
- decorative — moderate

Machinability — very good

Corrosion behaviour

- poor and critical in marine atmosphere

AVAILABILITY

EN AW 2014 sheets are available in temper T0 (heat annealed) as well as T6 in the following dimensions :

Thickness	Max. width
0.4 – 6.0mm	1600 mm

CHEMICAL COMPOSITION (weight %)

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti +Zr
0.5 1.2	max. 0.7	3.9 5.0	0.4 1.2	0.2 0.8	max. 0.1	max. 0.25	max. 0.15

PHYSICAL PROPERTIES (nominal values)

Density	2.80 g/cm^3
Elastic modulus	73000 MPa
Lin. thermal expansion coefficient (20°-100°C)	23.2 10^{-6} K^{-1}
Thermal conductivity (Temper T351)	130 - 190 W/mK
Electrical conductivity (Temper T351, 20°C)	34 - 50 MS/m

MECHANICAL STRENGTH

Min. tensile properties (Temper T0 / EN Standard 485-2)

Thickness (over ... to)	Rm [MPa]	Rp0.2 [MPa]	A50 [%]
0.4 – 1.5 mm	190	100	10
1.5 – 6.0 mm	190	100	10

Min. tensile properties (Temper T6 / EN Standard 485-2)

Thickness (over ... to)	Rm [MPa]	Rp0.2 [MPa]	A50 [%]
0.4 – 1.5 mm	440	390	6
1.5 – 6.0 mm	440	390	7