

Datasheet: EN AW-6061 Sheet, strip & plate - Aluminium Alumeco ApS 08-04-2025	Internal alloy name: 6061 Chemical Symbol: EN AW-Al Mg1SiCu International alloy name: EN AW-6061 UNS: A96061 DIN-Werkstoff no.: 3.3211 Alloy type: Heat treatable alloy
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Main usage: - Heavy duty structures - Rail coaches, truck frames, ship building, bridges, aircrafts, boilermaking - Motorboats - Aerospace applications - Rivets	Important norms and literature: General Standards: EN 573-3:2013: Aluminium and aluminium alloys – Chemical composition and form of wrought products – Part 3: Chemical composition and form of products. Geometric Tolerance: EN 485-3:2005: Aluminium and aluminium alloys – Sheet, strip and plate – Part 3: Tolerances on dimensions and form for hot-rolled products Product standards: EN 485-2:2008: Aluminium and aluminium alloys – Sheet, strip and plate – Part 2: Mechanical properties. EN 485-4:2000: Aluminium and aluminium alloys – Sheet, strip and plate – Part 4: Tolerances on shape and dimensions for cold-rolled products
Main properties: - Very good corrosion resistances - Very good weldability - Good cold formability in temper T4	

Chemical composition in %: EN 573-3:2013

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others Max.	
									Each	Total
Remainder	0,40 – 0,8	Max. 0,70	0,15 – 0,4	Max. 0,15	0,8 – 1,2	0,04 - 0,35	Max. 0,25	Max. 0,15	0,05	0,15

Mechanical properties: EN 485-2:2008

Temper	Specified thickness <i>t</i> mm	Tensile Stress R _m MPa	Proof Stress R _{p0,2} MPa	Elongation Min. %		Bend radius*				Hardness HBW
						180°		90°		
				A _{50mm}	A	<i>t</i> mm	bend	<i>t</i> mm	bend	
O	0,4 ≤ <i>t</i> < 25	Max. 150	Max. 85	14 - 19	16	0,4 - 3,0	1,0 · <i>t</i>	0,4 - 12,5	0,5 - 2,0 · <i>t</i>	40
T4	0,4 ≤ <i>t</i> < 80	Min. 205	Min. 110	12 - 18	14 - 15	0,4 - 3,0	1,5 - 2,0 · <i>t</i>	0,4 - 12,5	1,0 - 4,0 · <i>t</i>	58
T451	0,4 ≤ <i>t</i> < 80	Min. 205	Min. 110	12 - 18	14 - 15	0,4 - 3,0	1,5 - 2,0 · <i>t</i>	0,4 - 12,5	1,0 - 4,0 · <i>t</i>	58
T42	0,4 ≤ <i>t</i> < 80	Min. 205	Min. 95	12 - 18	14 - 15	-	-	0,4 - 12,5	1,0 - 4,0 · <i>t</i>	57
T6	0,4 ≤ <i>t</i> < 400	Min. 260 - 290	Min. 220 - 240	6 - 10	2 - 8	-	-	0,4 - 12,5	2,5 - 5,0 · <i>t</i>	80 - 88
T651	0,4 ≤ <i>t</i> < 400	Min. 260 - 290	Min. 220 - 240	6 - 10	2 - 8	-	-	0,4 - 12,5	2,5 - 5,0 · <i>t</i>	80 - 88
T62	0,4 ≤ <i>t</i> < 400	Min. 260 - 290	Min. 220 - 240	6 - 10	2 - 8	-	-	0,4 - 12,5	2,5 - 5,0 · <i>t</i>	80 - 88

* Information values only;

Physical properties:

Density g/cm ³	Solidification range °C	Electrical conductivity %IACS	Thermal conductivity W/m K	Thermal expansion ($\mu\text{m m}^{-1} \text{K}^{-1}$)	Annealing temperature °C	E - modulus (N / mm ²)
2,7	580 – 650	40 – 46,5	155 – 180	23,3	380 – 420	70000

Properties and information's (3 high/good; 2 Middle; 1 Poor/bad)

Resistance: Corrosion index, general: 2 Marine Atm. Corr index: 2 Hot workability: Extrusion: 2 Forging: 2 Cold formability: Cold formability general: 2 Deep drawing: 2 Bending: 3	Weldability TIG welding: 2 MIG welding: 3 Solderability Brazability index: 1 Solderability index: 2 Machinability Machinability index: 2	Anodizing: Decorative anodizing surface treatment: 2 Protective anodizing index: 3 Hard anodizing: 2 Color anodizing: 2
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