Datasheet:

EN AW-7021
Sheet, strip & plate - Aluminium

Alumeco ApS
16-05-2025

Internal alloy name:	**7021**
Chemical Symbol:	**EN AW-Al Zn5,5Mg1,5**
International alloy name:	**EN AW-7021**
UNS:	**A97021**
DIN-Werkstoff no.:	**-**
Alloy type:	**Heat treatable alloy**

Main usage:

- Tool- and mouldmaking
- Drive technology
- Machinery and device construction

Main properties:

- Very high strength
- Good MIG weldability
- Great machinability
- Great polishability

Important norms and literature:

General Standards:
EN 573-3:2013: Aluminium and aluminium alloys – Chemical composistion and form of wrought products – Part 3: Chemical composition and form of products.

Product standards:
EN 485-2:2008: Aluminium and aluminium alloys – Sheet, strip and plate – Part 2: Mechanical properties.

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

EN 485-4:2000: Aluminium and aluminium alloys – Sheet, strip and plate – Part 4: Tolerances on shape and dimensions for cold-rolled products

Chemical composition in %: EN 573-3:2013

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Remarks	Others Max. Each	Others Max. Total
Remainder	Max. 0,25	Max. 0,40	Max. 0,25	Max. 0.10	1,2 – 1,8	Max. 0,05	5,0 – 6,0	Max. 0,10 Ti + 0,08 – 0,18 Zr	0,05	0,15

Mechanical properties: EN 485-2:2008

Temper	Specified thickness *t* mm	Tensile Stress R_m MPa	Proof Stress $R_{p0,2}$ MPa	Elongation Min. % A_{50mm}	Elongation Min. % A	Hardness HBW
T6	1,5 ≤ *t* < 3,0	Min. 400	Min. 350	7	-	121
	3,0 ≤ *t* < 6,0	Min. 400	Min. 350	8	-	

*** Information values only;**

Physical properties:

Density g/cm³	Solidification range °C	Electrical conductivity %IACS	Thermal conductivity W/m K	Thermal expansion (µm m^{-1} K^{-1})	Annealing temperature °C	E - modulus (N / mm²)
2,80	600 – 650	36 – 41	125 – 155	23,0	380 – 420	70000

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

Resistance:
Corrosion index, general: 2
Marine Atm. Corr index: 1

Hot workability:
Extrusion: 1
Forging: 1

Cold formability:
Cold formability general: 1
Deep drawing: 1
Bending: 1

Weldability
TIG welding: 1
MIG welding: 2-3

Solderability
Brazability index: 1
Solderability index: 1

Machinability
Machinability index: 3

Anodizing:
Decorative anodizing surface treatment: 1
Protective anodizing index: 3
Hard anodizing: 2
Color anodizing: 2