Datasheet:

EN AW-7050
Sheet, strip & plate - Aluminium

Alumeco ApS
23-03-2026

Internal alloy name:	**7050**
Chemical Symbol:	**EN AW-Al Zn6CuMgZr**
International alloy name:	**EN AW-7050**
UNS:	**A97050**
DIN-Werkstoff no.:	**3.4144**
Alloy type:	**Heat treatable alloy**

Main usage:

- Aircraft structural applications
- Defense structural applications
- Fuselage components

Main properties:

- High strength
- Good corrosion resistance
- Good fracture toughness
- Good fatigue resistance

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:
ASM International 10th Ed. 1990 – Metals Handbook, Vol.2 - Properties and Selection: Nonferrous Alloys and Special-Purpose Materials

Geometric Tolerance:
LN 9073:1991 – Aerospace: Sheet and plate in wrought aluminium alloys, standard plane, rolled; dimensions, masses

Chemical composition in %: EN 573-3:2013

Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Remarks	Others Max. Each	Others Max. Total
Remainder	Max. 0,12	Max. 0,15	2,0 – 2,6	Max. 0,10	1,9 – 2,6	Max. 0,04	5,7 – 6,7	0,06	0,08 – 0,15 Zr	0,05	0,15

Mechanical properties:

Temper	Tensile Stress R_m MPa	Proof Stress $R_{p0,2}$ MPa	Elongation Min. % A_{50mm}	Elongation Min. % A	Hardness HBW
T73510 / T73511	495	435	12	-	132
T7451	525	470	11	-	140
T7651	550	490	11	-	147

*** 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)
2,83	488 - 630	39	157	23,6	415	72000

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

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

Hot workability:
Extrusion: -
Forging: -

Cold formability:
Cold formability general: -
Deep drawing: -
Bending: -

Weldability
TIG welding: 1
MIG welding: 1

Solderability
Brazability index: 1-2
Solderability index: 1-2

Machinability
Machinability index: 2

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