**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: -