**Datasheet:**

# EN AW 5754
# Extruded - Aluminium

**Alumeco ApS**
**25-03-2025**

| | |
|---|---|
| **Internal alloy name:** | **5754** |
| **Chemical Symbol:** | **AW – AlMg3** |
| **International alloy name:** | **EN AW 5754** |
| **DIN-Werkstoff no.:** | **3.3535** |
| **Alloy type:** | **None heat treatable alloy** |

## Main usage:

- Molds
- Machines and machines parts
- Marine applications
- Facade and building industry
- Can be used in the food industry

## Main properties:

- Good machining abilities
- High corrosion resistance
- Good weld abilities

## 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.

**Usages:**
EN 13195: Specifications for wrought products for marine applications

EN 602: Chemical composition of semi-finished products for the used for the fabrication of articles for use in contact with foodstuff

**Product standards:**
EN 755-1:2016: Aluminium and aluminium alloys – Extruded rod/bar, tube and profiles – Part 1: Technical conditions for inspection and delivery

EN 755-2:2016: Aluminium and aluminium alloys – Extruded rod/bar, tube and profiles – Part 2: Mechanical properties.

EN 755-3:2016: Aluminium and aluminium alloys – Chemical composition and form of wrought products – Part 3: Chemical composition and for of product

## Chemical composition in %: EN 573-3:2013

| Al | Si | Fe | Cu | Mn | Mg | Cr | Zn | Ti | Remarks | Others Max. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Each | Total |
| Remainder | Max. 0,40 | Max. 0,40 | Max. 0,10 | Max. 0,50 | 2,6 – 3,6 | Max. 0,30 | Max. 0,20 | Max. 0,15 | 0,10 – 0,6 Mn+Cr | 0,05 | 0,15 |

## Mechanical properties: EN 755-2:2016

| Temper | Dimensions Diameter mm | Tensile Stress $R_m$ MPa | Proof Stress $R_{p0,2}$ MPa | Elongation Min. % | | Hardness HBW |
|---|---|---|---|---|---|---|
| | | | | $A_{50mm}$ | A | |
| H112 | ≤ 150 | Min. 180 | Min. 80 | 12 | 14 | 47 |
| | 150 < *D* ≤ 250 | Min. 180 | Min. 70 | - | 13 | 47 |

*** 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) |
|---|---|---|---|---|---|---|
| 2,66 | 610 – 640 | 32,5 | 132 | 23,7 | 330 - 360 | 70500 |

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

Resistance:
Corrosion index, general: 3
Marine Atm. Corr index: 3

Hot workability:
Extrusion: 2
Forging: 2

Cold formability:
Cold formability general: 2
Deep drawing: 2
Bending: 2 – 3

Weldability
TIG welding: 3
MIG welding: 3

Solderability
Brazability index: 1
Solderability index: 1

Machinability
Machinability index: 3

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

General Information:
Decorative Anodizing can be a challenge due to the composition of the alloy.