Data Sheet

EN AW 7075 – Rolled products

Alumeco A/S

Internal alloy name:	**7075**
International alloy name:	**EN AW 7075**
Chemical Symbol:	**EN AW – Al Zn5,5MgCu**
DIN-Werkstoff no.:	**3.4365**
Alloy type:	**Heat treatable alloy**

Main usage

- Machining
- Machinery
- Forgings
- Tools
- Heavy duty structures
- Hydraulics systems

Main properties

- Very good workability
- Good machinability
- High strength

Important norms and literature

Rolled products:
EN 485-1: Technical conditions for inspection and delivery
EN 485-2: Mechanical properties
EN 485-3: Tolerances on dimensions and form hot rolled products
EN 485-4: Tolerances on dimensions and form cold rolled products

Chemical composition:
EN 573-3: Chemical composition

Chemical composition (%) EN 573-3

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Remarks	Other elements Each	Other elements together
0.40	0.50	1.2-2.0	0.30	2.1-2.9	0.18-0.28	5.1-6.1	0.20	Max. 0.25 Zr + Ti	0.05	0.15

Typical mechanical properties EN 485 – 2

Thickness range (mm)	Temper	Rm MPa	$Rp_{0,2}$ MPa	A_{50} %	Hardness* HB	Bend radius* 180°	Bend radius* 90°
1.5 up to 3.0	T651	Min. 540	Min. 470	7	161		6.5t
3.0 up to 6.0	T651	Min. 545	Min. 475	8	163		8.0t
6.0 up to 12.5	T651	Min. 540	Min. 460	8	160		12.0t
25 up to 50	T651	Min. 530	Min. 460	5 (A%)	158		-
100 up to 120	T651	Min. 410	Min. 300	2 (A%)	119		-
200 up to 300	T651	Min. 360	Min. 220	1 (A%)	-		-

* 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)
2.81	475-635	39.5	155	23.5	-	72,000

Typical Alumeco products with this alloy

- Rolled materials in various dimensions and form

Properties and information (3 high/good; 2 medium; 1 poor/bad)

Resistance:
Corrosion index, general: 1
Marine atm. corr. index: 1

Hot workability:
Extrusion: 2
Forging: 2

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

Weldability
TIG welding: 1
MIG welding: 1

Solderability
1

Machinability
Machinability index: 3

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