Data Sheet:

EN AW 6060 - Profiles

Alumeco A/S

Internal alloy name: 6060

International alloy name : EN AW 6060
Chemical Symbol: EN AW – AlMgSi

DIN-Werkstoff no.: 3.3206
Alloy type: Heat treatable alloy

Main usage:

- Constructions
- Anodizing in general
- Automotive
- Forgings
- Marine and offshore

Main properties:

- Very good atmospheric corrosion resistance
- Very good workability
- Decoration anodisation
- Heat treatable alloys (Soft T4 temper)

Important norms and literature:

Extrusion:
EN755-1: Technical conditions for inspection and delivery
EN755-2: Mechanical properties
Series EN755-3 to EN755-9: Tolerances on dimensions and forms for different extrusions

Chemical composition:
EN573-3: Chemical composition

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

EN 602: Usage for food industry

Chemical composition. EN573-3:2009

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Remarks	Other elements Each	Other elements together
0,30-0,6	0,10-0,30	0,10	0,10	0,35-0,6	0,05	0,15	0,10	N/A	0,05	0,15

Typical mechanical properties. EN755 - 2

Product group Dimension (mm)	Temper	Rm MPa	$Rp_{0,2}$ MPa	A %	Hardness* HB
Rod/Bar ≤ 150	T4	Min. 120	Min. 60	16	50
Rod/Bar ≤ 150	T6	Min. 190	Min. 150	8	70
Rod/Bar ≤ 150	T66	Min. 215	Min. 160	8	75
Tubes Wall thickness ≤ 15	T6	Min. 190	Min. 150	8	70
Profiles Wall thickness ≤ 25	T4	Min. 120	Min. 60	16	50
Profiles Wall thickness 3 < t ≤ 25	T6	Min. 170	Min. 140	8	70
Profiles Wall thickness 3 < t ≤ 25	T66	Min. 195	Min. 150	8	75

* 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	E - modulus (N / mm²)
2,70	645-658	54	209	23,4	300°c	69.500

Typical Alumeco products with this alloy

- Bars in various dimensions and form
- Angle profiles
- Tubes
- Profiles

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: 3
Forging: 3

Cold formability:
Cold formability general: 2
Deep drawing: 1
Bending: 2 – 3 (Depending on the temper)

Weldability
TIG welding: 2
MIG welding: 2

Solderability
Brazability index: 2
Solderability index: 2

Machinability
Machinability index: 3

Tips on machinability:

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

General Information: