Data Sheet

EN AW 5754 – Rolled products and tread plates

Alumeco A/S

Internal alloy name: 5754

International alloy name: EN AW 5754
Chemical Symbol: EN AW – AlMg3

DIN-Werkstoff no.: 3.3535
Alloy type None heat treatable alloy

Main usage

- Molds
- Machines and machines parts
- Marine applications
- Application for bending
- Facade and building industry
- Can be used in the food industry
- Etc.

Main properties

- High corrosion resistance
- Good weld abilities

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

EN 1386: Tread plate - Specifications

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

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	0.4	0.10	0.5	2.6-3.6	0.30	0.20	0.15	Mn + Cr 0.1 - 0.6	0.05	0.15

Typical mechanical properties EN 485 – 2 and EN 1386 (Tread Plates)

Thickness range (mm)	Temper	Rm MPa	$Rp_{0,2}$ MPa	$A_{50\ mm}$ %	Hardness* HB	Bend radius* 180º	Bend radius* 90º
0.5 up to 1.5	H111	190 - 240	Min. 80	Min. 14	52	0.5t	0.5t
1.5 up to 3.0	H111	190 - 240	Min. 80	Min. 16	52	1.0t	1.0t
3.0 up to 6.0	H111	190 - 240	Min. 80	Min. 18	52	1.0t	1.0t
0.5 up to 1.5	H22	220 - 270	Min. 130	Min. 8	63	1.5t	1.0t
1.5 up to 3.0	H22	220 - 270	Min. 130	Min. 10	63	2.0t	1.5t
1.5 up to 3.0**	H114	190 - 260	Min. 80	Min. 10	-	-	2.0t
3.0 up to 6.0**	H114	190 - 260	Min. 80	Min. 12	-	-	2.0t

* Information values only
** EN1386 – Tread Plates

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	350 – 400	70,500

Typical Alumeco products with this alloy

- Sheets and plates
- 3/5 and 5/7 tread plate

Properties and information (3 high/good; 2 medium; 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

Be aware that the formability categorizations depend on the temper of the alloy.

Weldability
TIG welding: 3
MIG welding: 3

Solderability
1

Machinability
Machinability index: 2

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.