

Data Sheet		EN AW 6082 – Profiles		Alumeco A/S		Internal alloy name: 6082		International alloy name: EN AW 6082		Chemical Symbol: EN AW – AlSi1MgMn		DIN-Werkstoff no.: 3.2315		Alloy type: Heat treatable alloy	
<b>Main usage</b>			<b>Main properties</b>			<b>Important norms and literature</b>									
<ul style="list-style-type: none"> <li>Machining</li> <li>Machinery</li> <li>Heavy duty structures</li> <li>Marine and offshore</li> </ul>			<ul style="list-style-type: none"> <li>Very good atmospheric corrosion resistance</li> <li>Very good workability</li> <li>Good machinability</li> <li>Heat treatable alloys (Soft T4 temper)</li> </ul>			Extrusion: EN 755-1: Technical conditions for inspection and delivery EN 755-2: Mechanical properties EN 755-9: Tolerances on dimensions and forms for different extrusions  Usages: EN 13195: Specifications for wrought products for marine applications EN 602: usage in the food industry  Chemical composition: EN 573-3: Chemical composition									
<b>Chemical composition EN 573-3:2009</b>															
Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other elements							
								Each	together						
0.7-1.3	0.5	0.1	0.4-1.0	0.6-1.2	0.25	0.2	0.1	0.05	0.15						
<b>Typical mechanical properties EN 755 – 2 (Extruded profiles)</b>															
Open profile thickness (mm)		Temper		Rm MPa		Rp <sub>0,2</sub> MPa		A %		Hardness* HB					
≤ 25		T4		Min. 205		Min. 110		14		70					
≤ 5		T6		Min. 290		Min. 250		8		95					
5 < t ≤ 25		T6		Min. 310		Min. 260		10		95					
* Information values only															
<b>Physical properties</b>															
Density g/cm <sup>3</sup>	Solidification range °C	Electrical conductivity %IACS	Thermal conductivity W/m K	Thermal expansion (µm m <sup>-1</sup> K <sup>-1</sup> )	Annealing temperature °C	E - modulus (N / mm <sup>2</sup> )									
2.70	575-650	44	172	23.1	350-400	70,000									
<b>Typical Alumeco products with this alloy</b>															
<ul style="list-style-type: none"> <li>Profiles in various dimensions and form</li> </ul>															
<b>Properties and information (3 high/good; 2 medium; 1 poor/bad)</b>															
<u>Resistance</u> Corrosion index, general: 3 Marine atm. corr. index: 3  <u>Hot workability</u> Extrusion: 3 Forging: 3  <u>Cold formability</u> Cold formability general: 2 Deep drawing: 1 Bending: 2 – 3 (Depending on the temper)			<u>Weldability</u> TIG welding: 2 MIG welding: 2  <u>Solderability</u> 1			<u>Machinability</u> Machinability index: 3			<u>Anodizing</u> Decorative anodizing surface treatment: 2 Protective anodizing index: 3 Hard anodizing: 3 Color anodizing: 2  <u>General information</u> Decorative anodizing can be a challenge due to crystal growth in the material.						