

Data Sheet		EN AW 6005 – Profiles		Alumeco A/S		Internal alloy name: 6005		International alloy name: EN AW 6005		Chemical Symbol: EN AW – AlSiMg		DIN-Werkstoff no.: 3.3210		Alloy type: Heat treatable alloy	
Main usage			Main properties			Important norms and literature									
<ul style="list-style-type: none"> Machinery Constructions Marine and offshore 			<ul style="list-style-type: none"> Very good atmospheric corrosion resistance Very good workability Heat treatable alloys (Soft T4 temper) 			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 Chemical composition: EN 573-3: Chemical composition						Usages: EN 13195: Specifications for wrought products for marine applications EN 602: Usage in the food industry			
Chemical composition EN 573-3:2009															
Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Other elements							
								Each	together						
0.5-0.9	0.35	0.3	0.5	0.4-0.7	0.3	0.2	0.1	0.05	0.15						
Typical mechanical properties EN 755 – 2 (Extruded profiles)															
Open profile thickness (mm)		Temper		Rm MPa		Rp _{0,2} MPa		A %		Hardness* HB					
≤ 25		T4		Min. 180		Min. 90		15		50					
≤ 5		T6		Min. 270		Min. 225		8		90					
5 < t ≤ 10		T6		Min. 260		Min. 215		8		85					
10 < t ≤ 25		T6		Min. 250		Min. 200		8		85					
* Information values only															
Physical properties															
Density g/cm ³	Solidification range °C		Electrical conductivity %IACS		Thermal conductivity W/m K		Thermal expansion (μm m ⁻¹ K ⁻¹)		Annealing temperature °C		E - modulus (N / mm ²)				
2.70	600-655		49.5		188		23.2		350-400		69,500				
Typical Alumeco products with this alloy															
<ul style="list-style-type: none"> Profiles in various dimensions and form 															
Properties and information (3 high/good; 2 medium; 1 poor/bad)															
<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> 2			<u>Machinability</u> Machinability index: 2			<u>Anodizing:</u> Decorative anodizing surface treatment: 2 Protective anodizing index: 3 Hard anodizing: 3 Color anodizing: 2						