

Data Sheet		Internal alloy name: 2011									
EN AW 2011 – Rods and bars		International alloy name: EN AW 2011									
Alumeco A/S		Chemical Symbol: EN AW – AlCu6BiPb									
		DIN-Werkstoff no.: 3.1655									
		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>Forming</li> <li>Forging</li> <li>Mechanical Engineering</li> <li>Tools</li> </ul>	<ul style="list-style-type: none"> <li>High strength material</li> <li>Good machinability</li> <li>Low corrosion resistance</li> </ul>	<b>Extruded:</b> EN 755-1: Technical conditions for inspection and delivery EN 755-2: Mechanical properties EN 755-3: Tolerances on dimensions and form round bars EN 755-6 Tolerances on dimensions and form hexagonal bars  <b>Cold drawn:</b> EN 754-1: Technical conditions for inspection and delivery EN 754-2: Mechanical properties EN 754-3: Tolerances on dimensions and form round bars EN 754-6 Tolerances on dimensions and form hexagonal bars									
<b>Chemical composition (%) EN 573-3</b>											
Si	Fe	Cu	Mn	Mg	Zn	Bi	Pb	Other elements Each together			
0.40	0.7	5.0-6.0	-	-	0.30	0.20-0.6	0.2-0.39	0.05	0.15		
<b>Typical mechanical properties EN 754-2 - Drawn</b>											
Diameter range (mm)		Temper		Rm MPa		Rp0,2 MPa		A %		Hardness* HB	
≤ 80		T8		Min. 370		Min. 270		8		115	
<b>Typical mechanical properties EN 755-2 - Extruded</b>											
≤ 75		T6		Min. 310		Min. 230		8		110	
75 < D < 150		T6		Min. 295		Min. 195		6		110	
* 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> )
2.84		540 - 645		45.5		172		23		350-400	72,500
<b>Typical Alumeco products with this alloy</b>											
<ul style="list-style-type: none"> <li>Round bars with the diameter from 10 – 100 mm</li> <li>Diameter below 50 mm is typically extruded / drawn and above is it only extruded</li> <li>Not standard, but can be found as sheets with the thickness 1 – 10 mm</li> </ul>											
<b>Properties and information (3 high/good; 2 medium; 1 poor/bad)</b>											
<u>Resistance</u> Corrosion index, general: 1 Marine atm. corr. index: 1  <u>Hot workability</u> Extrusion: 2 Forging: 2  <u>Cold formability</u> Cold formability general: 1 Deep drawing: 1 Bending: 1		<u>Weldability</u> TIG welding: 1 MIG welding: 1  <u>Solderability</u> 1		<u>Machinability</u> Machinability index: 3  <u>Tips regarding machining</u> Tension/deformation is possible to occur			<u>Anodizing</u> Decorative anodizing surface treatment: 1 Protective anodizing index: 2 Hard anodizing: 2 Color anodizing: 1				