

<b>Data Sheet</b>  <b>EN AW 1050A – Rolled products</b> <b>99.50% pure aluminium</b>  <b>Alumeco A/S</b>	<b>Internal alloy name:</b> 1050A  <b>International alloy name:</b> EN AW 1050A <b>Chemical Symbol:</b> EN AW - Al 99.5  <b>DIN-Werkstoff no.:</b> 3.0255 <b>Alloy type:</b> Non heat treatable alloy
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<b>Main usage</b> <ul style="list-style-type: none"> <li>• Constructions</li> <li>• Cabinets</li> <li>• Deep-drawn parts</li> <li>• Strips for heat exchanger</li> <li>• Light reflectors</li> </ul>	<b>Main properties</b> <ul style="list-style-type: none"> <li>• Very good atmospheric corrosion resistance</li> <li>• Very good workability</li> <li>• High thermal and electrical conductivity (preferred alloy 1350)</li> <li>• Attractive appearance</li> <li>• High reflectivity</li> <li>• Suitable for decorative anodizing*</li> <li>• Very good weld ability</li> <li>• Low mechanical properties</li> <li>• Plates are available in deep drawing quality (DDQ)</li> </ul> <p><small>*Not for continuously cast (CC) materials</small></p>	<b>Important norms and literature</b> <p>Cold rolled products:  EN 485-1: Technical conditions for inspection and delivery  EN 485-2: Mechanical properties  EN 485-4: Tolerances on dimensions and form cold rolled products</p> <p>Deep-drawn parts:  EN 1669: Earing test for sheet and strip</p> <p>Usages:  EN 602: Usage in the food industry</p> <p>Chemical composition:  EN 573-3: Chemical composition</p>
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**Chemical composition (%) EN 573-3**

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Remarks	Other elements Each together
0.25	0.40	0.05	0.05	0.05	-	0.07	0.05	Min 99.5% Al	0.03 -

**Typical mechanical properties EN 485 - 2**

Thickness range (mm)	Temper	Rm MPa	Rp <sub>0,2</sub> MPa	A %	Hardness* HB	Bend radius**	
						180°	90°
0.5 up to 1.5	H111	65 - 95	Min. 20	22	20	0t	0t
1.5 up to 3.0	H111	65 - 95	Min. 20	26	20	0t	0t
0.5 up to 1.5	H14	105 - 145	Min. 85	2	34	1.0t	0.5t
1.5 up to 3.0	H14	105 - 145	Min. 85	4	34	1.0t	1.0t
3.0 up to 6.0	H14	105 - 145	Min. 85	5	34	-	1.5t

\*\* Information values only

**Physical properties**

Density g/cm <sup>3</sup>	Solidification range °C	Electrical conductivity %IACS	Thermal conductivity W/m K	Thermal expansion ( $\mu\text{m m}^{-1} \text{K}^{-1}$ )	Annealing temperature °C	E - modulus (N / mm <sup>2</sup> )
2.70	645-658	59.5	210-220	23.5	350-400	69,000

**Typical Alumeco products with this alloy**

- Sheets in the size of 0.5 – 6 mm in three different sizes (1000x2000; 1250x2500; 1500x3000) and temper H14
- 1 – 3 mm warehouse materials (Continuously Cast)
- Deep-drawn sheets in the size of 1 – 2 mm - Temper H111
- Sheets with stucco pattern
- Strips/Coils

**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>Weldability</u> TIG welding: 3 MIG welding: 3	<u>Cold formability</u> Cold formability general: 3 (Soft tempers and hot rolled only) Deep drawing: 3* (Deep drawing quality/DDQ) Bending: 3 (Soft tempers and hot rolled only)  <u>Solderability</u> 3  <u>Machinability</u> Machinability index: 1	<u>Tips regarding machining</u> Tools for aluminum processing: High-usable cutting speeds, possibly > 2000 m / min.  <u>Anodizing</u> Decorative anodizing surface treatment: 3 (CC cast materials 1) Protective anodizing index: 3 Hard anodizing: 3 Color anodizing: 3 (CC materials 1)	<u>General information</u> Decorative anodizing cannot be recommended for continuously cast (CC) materials.  *We stock special produced plates that are especially suited for deep drawing – deep drawing quality (DDQ).
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