

<b>Data sheet</b>  <b>EN Cu-HCP/CW021A – Rolled products</b> <b>99,95 % pure copper</b>  <b>Alumeco A/S</b>		<b>Internal alloy name:</b> CW021A <b>International alloy name:</b> EN Cu-HCP <b>DIN-Werkstoff no.:</b> 2.0070 <b>Alloy type:</b> Electrical conducting <b>Revision date:</b> 11-01-2021					
<b>Main usage</b> <ul style="list-style-type: none"> <li>• Electrical conductors</li> <li>• Industrial applications</li> </ul>		<b>Main properties</b> <ul style="list-style-type: none"> <li>• High thermal and electrical conductivity</li> <li>• Good atmospheric corrosion resistance</li> <li>• Good welding and soldering properties as well as resistance to hydrogen</li> </ul>		EN13599 Copper and copper alloys - Copper plate, sheet and strip for electrical purposes  EN 10204 Metallic products - types of inspection certificates		EN 1655 Copper & copper alloys, declaration of conformity.	
<b>Chemical composition (%) DIN EN 13599</b>							
Cu	Bi	P	Pb	Each	Other elements together		
99.95	Max. 0.0005	0,002-0,007	Max. 0.005	-	0.03		
<b>Typical mechanical properties DIN EN 13599</b>							
<b>Material condition</b>	<b>Thickness range (mm)</b>	<b>Rm MPa</b>	<b>Rp<sub>0,2</sub> MPa</b>	<b>A<sub>50mm</sub> for thickness up to 2,5mm %</b>	<b>A for thickness up to 2,5mm %</b>	<b>Hardness HBW</b>	<b>Hardness HV</b>
R220 (soft)	0,1 - 5	220-260	Max. (140)	33	42	-	-
R240(1/2 hard)	0,1 – 10	240-300	Min. 180	8	15	-	-
<b>Physical properties</b>							
<b>Density (20 °C) g cm<sup>-3</sup></b>	<b>Solidification range °C</b>	<b>Electrical conductivity %IACS</b>	<b>Thermal conductivity (20 °C) W m<sup>-1</sup> K<sup>-1</sup></b>	<b>Thermal expansion (20-300 °C) μm m<sup>-1</sup> K<sup>-1</sup></b>	<b>Annealing temperature °C</b>	<b>E - modulus (20 °C) N mm<sup>-2</sup></b>	
8,9	1083	100	386	17,7	371-649	-	
<b>Properties and information</b>							
<b>Fabrication Properties</b>				<b>Joining Methods</b>			
<b>Hot Formability</b>		<b>Excellent</b> - 750-950°		<b>Soldering</b>		<b>Excellent</b>	
<b>Cold Formability</b>		<b>Excellent</b>		<b>Brazing</b>		<b>Excellent</b>	
				<b>MIG Welding</b>		<b>Excellent</b>	
				<b>Gas-shielded arc welding</b>		<b>Good</b>	