

<b>Data sheet</b>  <b>CW452K</b> <b>CuSn6</b>  <b>Alumeco A/S</b>		<b>Internal alloy name:</b> CW452K <b>Nominal composition:</b> CuSn6 <b>DIN-Werkstoff no.:</b> 2.1020 <b>Alloy type:</b> Phosphor Bronze <b>Revision date:</b> 11-01-2021					
<b>Main usage</b> <ul style="list-style-type: none"> <li>• Miniaturized connectors</li> <li>• Contact springs</li> <li>• Switch parts</li> <li>• fasteners</li> <li>• Stamped parts</li> <li>• Fixed contacts</li> </ul>	<b>Main properties</b> <ul style="list-style-type: none"> <li>• Good wear resistance</li> <li>• Good pitting corrosion resistance</li> <li>• Low melting temperature</li> <li>• Largely insensitive to stress corrosion cracking.</li> </ul>	<b>Strips and sheets</b> EN 1652: Copper & copper alloys-plates, sheets, strips and discs for general use.	EN 1654: Copper & copper alloys- ribbons for springs & connectors. EN 13148: Copper & copper alloys- hot dip tinned strips.				
		<b>Tube</b> EN 12449: Copper & copper alloys-seamless round tubes for general use.	EN 12167: Copper & copper alloys- profiles & rectangular bars for general use. <b>Wires</b> EN 12166: Copper& copper alloys- general purpose wires.				
<b>Chemical composition (%) DIN/EN 1982</b>							
<b>Cu</b>	<b>P</b>	<b>Sn</b>	<b>Fe</b>	<b>Ni</b>	<b>Pb</b>	<b>Zn</b>	<b>Other</b>
91,7 - 95	0,01 - 0,4	5,5 - 7	0 - 0,1	0 - 0,2	0 - 0,02	0 - 0,2	0 - 0,5
<b>Mechanical properties DIN/EN 1652</b>							
<b>Temper</b>	<b>Tensile Strength</b> R <sub>m</sub> N/mm <sup>2</sup>	<b>0,2% proof strength</b> Rp <sub>0,2</sub> N/mm <sup>2</sup>	<b>Elongation</b> A %	<b>Brinell Hardness</b> HV			
	.	<b>Min.</b>	<b>Min.</b>	<b>Min.</b>			
R500	560-590	450	8	-			
H160	-	-	-	160-190			
<b>Physical properties</b>							
<b>Density</b> (20 °C) g cm <sup>-3</sup>	<b>Electrical conductivity</b> (1 MS/m = 1 m/(Ω mm <sup>2</sup> )) MS/m	<b>Electrical conductivity</b> %IACS	<b>Thermal conductivity</b> W m <sup>-1</sup> K <sup>-1</sup>	<b>Thermal expansion</b> (20-100 °C) 10 <sup>-6</sup> / K <sup>-1</sup>	<b>Thermal coefficient of electrical resistance</b> (0-100°C) 10 <sup>-3</sup> / K	<b>Modulus of elasticity</b> KN mm <sup>-2</sup>	
8,8	≥9	≥15,5	75	18	0,65	102	
<b>Properties and information</b>							
<b>Fabrication Properties</b>				<b>Joining Methods</b>			
<b>Hot Formability</b>		<b>Limited</b>		<b>Soldering</b>		<b>Excellent</b>	
<b>Cold Formability</b>		<b>Excellent</b>		<b>Brazing</b>		<b>Good</b>	
				<b>Resistance welding</b>		<b>Good</b>	
				<b>Gas-shielded arc welding</b>		<b>Good</b>	