

Deoxidized Low Phosphorous Copper (CW023A, C120) – produced in Pori is used in some industrial segments.

**Properties:**

- Medium high electrical and thermal conductivity
- Resists hydrogen embrittlement
- Excellent corrosion resistance
- Excellent formability
- Good weldability
- High scrap value

**Composition:**

- Cu min 99,90 %
- P 50...130 ppm

**Electrical conductivity:**

- min 90 % IACS

**Thermal conductivity:**

- min 386 W/m<sup>°K</sup>

**Typical applications:**

- Deep drawing applications
- Household products
- Cooling elements

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**Physical Properties, Tempers and Mechanical Properties:**

<b>Alloy Name</b>	<b>Cu-DHP</b>
<b>European Standard Number</b>	<b>CW023A</b>
<b>UNS Code</b>	<b>C12000</b>
<b>Manufacturing Location</b>	<b>Pori</b>
Density	8.9 g/cm <sup>3</sup> , 0.323 lb/in <sup>3</sup>
Electrical Conductivity	min 90 % IACS
Thermal Conductivity	min 386 W/(m °K), 223 Btu/(ft hr °F)
Modulus of Elasticity	117 GPa, 17 X1000 ksi
Coef. of Thermal Exp. at 20 °C (68 °F)	17.6 10-6/°C, 9.8 10-6/°F
<b>EN H040 / R200</b>	
Tensile Strength Rm N/mm <sup>2</sup>	200 - 250
Yield Strength (0.2 %) N/mm <sup>2</sup>	max 100
Elongation % A50 / A (0.1- < 2.5 mm/ 2.5 mm -)	min - / 42
Hardness HV	40 - 65
Thickness mm	0.2 - 20
<b>EN H040 / R220</b>	
Tensile Strength Rm N/mm <sup>2</sup>	220 - 260
Yield Strength (0.2 %) N/mm <sup>2</sup>	max 140
Elongation % A50 / A (0.1- < 2.5 mm/ 2.5 mm -)	min 33 / 42
Hardness HV	40 - 65
Thickness mm	0.2 - 20
<b>EN H065 / R240</b>	
Tensile Strength Rm N/mm <sup>2</sup>	240 - 300
Yield Strength (0.2 %) N/mm <sup>2</sup>	min 180
Elongation % A50 / A (0.1- < 2.5 mm/ 2.5 mm -)	min 8 / 15
Hardness HV	65 - 95
Thickness mm	0.2 - 6, 12 - 25
<b>EN H090 / R290</b>	
Tensile Strength Rm N/mm <sup>2</sup>	290 - 360
Yield Strength (0.2 %) N/mm <sup>2</sup>	min 250
Elongation % A50 / A (0.1- < 2.5 mm/ 2.5 mm -)	min 4 / 6
Hardness HV	90 - 110
Thickness mm	0.2 - 25
<b>EN H110 / R360</b>	
Tensile Strength Rm N/mm <sup>2</sup>	min 360
Yield Strength (0.2 %) N/mm <sup>2</sup>	min 320
Elongation % A50 / A (0.1- < 2.5 mm/ 2.5 mm -)	min 2 / -
Hardness HV	min 110
Thickness mm	0.2 - 20

Other tempers - as ASTM - are available upon request.  
 Data for information only not for purchase specification.  
 Yield strength, Elongation and Hardness are typical values for each temper.