

## Phosphorbronze | Square Bars

DATA SHEET



<b>Alloy</b>	CuSn8, CW453K mostly also available in CuSn8P, CW459K
<b>Method of Manufacture</b>	drawn
<b>Specification</b>	EN 12163
<b>Tolerance</b>	DIN 1761, h12 8-10 mm + 0/-0.15 mm 12-15 mm + 0/-0.18 mm 20-30 mm + 0/-0.21 mm 35-50 mm + 0/-0.25 mm 60 mm + 0/-0.30 mm
<b>Temper</b>	mostly R450
<b>Machinability</b>	moderate
<b>Hot Working</b>	not good
<b>Cold Working</b>	good
<b>Corrosion Resistance</b>	very good versus many media, incl. sea water
<b>Sliding Properties</b>	very good
<b>REACH</b>	no obligations
<b>RoHS</b>	conformal

### Mechanical Properties

	Tensile strength $R_m$	Yield stress $R_{p0.2}$	Elongation A	Hardness HB
M	as obtained			
R390	$\geq 390 \text{ N/mm}^2$	$\geq 280 \text{ N/mm}^2$	$\geq 45 \%$	
H085				85-125
R450	$\geq 450 \text{ N/mm}^2$	$\geq 280 \text{ N/mm}^2$	$\geq 26 \%$	
H135				135-165
R550	$\geq 550 \text{ N/mm}^2$	$\geq 400 \text{ N/mm}^2$	$\geq 15 \%$	
H160				160-190

Better corrosion resistance than tin bronzes with lower tin content, higher strength and very good sliding properties and wear resistance. Good cold formability, good solderability. Sliding components, slide bearings (especially thin-walled ones) and sliding guides. Highly stressed worm and gear wheels, screws and bolts.

### Chemical Composition

Cu Rest
Sn 7.5 - 8.5 %
P 0.01- 0.4%
Impurities, max.:
Fe 0.1 %, Ni 0.2 %, Pb 0.02 %, Zn 0.2 %
other 0.2 %

### Comparable Specifications

CuSn8, 2.1030, DIN 17 662
C 52 100 UNS
PB 104, BS 2870-2875

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## Phosphorbronze | Flat Bars

DATA SHEET



<b>Alloy</b>	CuSn8, CW453K mostly also available in CuSn8 P, CW459K
<b>Method of Manufacture</b>	drawn
<b>Specification</b>	EN 12167
<b>Tolerance</b>	DIN 1759, group II, sharp corners width 20-30 mm +/-0.22 mm width 40-50 mm +/-0.30 mm width 60-80 mm +/-0.37 mm width 90 mm +/-0.45 mm Thickness 5+6 mm +/-0.10 to +/-0.16 mm Thickness 8+10 mm +/-0.12 to +/-0.18 mm Thickness 12+15 mm +/-0.15 to +/-0.22 mm Thickness 20+25 mm +/-0.22 to +/-0.30 mm Thickness 30-40 mm +/-0.22 to +/-0.37 mm depending on with
<b>Temper</b>	mostly R450
<b>Machinability</b>	moderate
<b>Hot Working</b>	not good
<b>Cold Working</b>	good
<b>Corrosion Resistance</b>	very good versus many media, incl. sea water
<b>Sliding Properties</b>	very good
<b>REACH</b>	no obligations
<b>RoHS</b>	conformal

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