

Phosphor Bronze (Copper-Tin) BD60 | BD61 | BD64 | BD65



Material Designation				
Sundwiger	BD60	BD61	BD64	BD65
DIN-EN Symbol	CuSn6	CuSn6	CuSn6	CuSn6
DIN-EN	CW452K			
UNS	C51900			

About the Alloy

For the technically and industrially important tin bronze CuSn6 the standard DIN EN 12166 specifies a broadly tolerated composition.

However, since this material can be applied in various fields in terms of composition, tensile strength and electrical conductivity, Sundwiger Messingwerk developed four wire alloys within the wide tolerance range of DIN-EN compositions that meet diverse customer requirements.

Physical Properties*				
Sundwiger	BD60	BD61	BD64	BD65
Condition of tin content within DIN EN tolerance	low	low	high	high
Condition of phosphor content within DIN EN tolerance	low	high	low	high
Density in g/cm ³	8.8	8.8	8.8	8.8
Electrical conductivity in % IACS soft	≥14	≥13	≥13	≥12

* Reference values

Mechanical Properties*					
Sundwiger		BD60	BD61	BD64	BD65
Tensile strength in N/mm ²	soft	360 - 440	360 - 440	360 - 440	360 - 440
	1/4 hard	430 - 550	430 - 550	430 - 550	430 - 550
	1/2 hard	530 - 630	530 - 630	530 - 630	530 - 630
	3/4 hard	630 - 740	630 - 740	630 - 740	630 - 740
	hard	740 - 900	740 - 900	740 - 900	740 - 900
	springhard	min 900	min 900	min 900	min 900
Elongation A100 in %	soft	≥40	≥40	≥40	≥40

* Reference values

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Reference to Standards	
DIN	EN 12166

Typical Applications
<ul style="list-style-type: none"> • Connectors • Spring wire • Screws • Rivets • Wire mesh • Spectacle frames • Reinforcement (construction)

Available Dimensions		
Rolled, modified square wire	5.1 mm	max. 2000 kg
	7.4 mm	
Round wire	1.2 - 6.2 mm in coils	max. 200 kg
	1.8 - 6.2 mm on stands	max. 1500 kg
	0.5 - 3 mm on reels	max. 1000 kg
	1.5 - 3 mm on acropaks	max. 400 kg
	On request: in drums	max. 400 kg
	On request: in bars, diameter 2 - 5 mm, sheared ends (length ≤ 3.5 m)	max. 500 kg

Your Contact Person	
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