

Low-Alloyed Phosphor Bronze (Copper-Tin) BD01 | BD03 | BD06



Material Designation			
DMA Symbol	BD01	BD03	BD06
DIN-EN Symbol	CuSn0,15	(CuSn0,3)	CuSn0,6
DIN-EN	CW117C	CW129C	-
UNS	C14410 / C14415	C18835	C50100

Reference to Standards	
DIN	EN 12166

Typical Applications
<ul style="list-style-type: none"> • Conductor wire • Harness wire • Flat wire • Special screws • Pressed parts • Rivets

About the Alloy
Wire of low-alloyed phosphor bronze has a good electrical conductivity and a better softening behaviour than copper.
Wire made of this alloy is therefore used for conductive wire in electrical and electronic components and harness wire in vehicles.

Mechanical Properties*				
DMA Symbol		BD01	BD03	BD06
Tensile strength in N/mm ²	soft	260 - 320	270 - 330	280 - 340
	hard	340 - 400	350 - 420	380 - 450
	springhard	350 - 420	380 - 450	400 - 470
	extra springhard	380 - 450	400 - 470	420 - 490
	super springhard	450 - 570	470 - 620	490 - 640
Elongation soft A100 in %		> 30		
* Reference values				

Physical Properties*			
DMA Symbol	BD01	BD03	BD06
Electrical conductivity in % IACS (soft condition)	> 80	68	63
Electrical conductivity in MS/m	46.4	39.4	36.5
Density in g/cm ³	8.9	8.9	8.9
* Reference values			

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

Your Contact Person	
Worldwide	
Sundwiger Messingwerk	A Diehl Metal Applications company Sundwiger Messingwerk GmbH & Co. KG Hönnetalstraße 110 58675 Hemer Germany Phone +49 2372 661-143 Fax +49 2372 661-48143 E-Mail: jens.mittendorff@diehl.com www.diehl.com/metall

The information given in this material data sheet, which in any case provides no guarantee of particular characteristics, has been compiled to the best of our knowledge but is given without any obligation on our part. Our liability is determined solely by the individual contract terms, in particular by our general conditions of sale. We reserve the right to make alterations especially where necessitated by technical developments or changes in availability.

Please ask for the latest edition of this material data sheet.