

Material Data Sheet



BÖGRA - PSN3Ni

CuSn12Ni2-C



Chemical Composition [wt%]	
Cu	remainder
Sn	12,0
Ni	2,0
P	0,2

Material Designation

Bögra: **PSN3Ni** according to Production-Specification BT-PSN3Ni-222 lead free

DIN: Complies with CuSn12Ni2-C according to DIN EN 1982:2017

Material-No.

CC484K (formerly 2.1060 according to DIN 1705)

Supplied as

- Machined Slide Bearings
- Semi-finished products: rods, tubes, profiles, flat bars

Applications

Constructional material with very good wear resistance, resistant to corrosion and seawater and to the effects of cavitation. Ring-shaped and tubular constructional parts, nuts in motion under load, highly loaded, fast running worm and helical gears. Characteristic loading values:

for continuously running worm-wheels, depending on the slip speed, $c = 200$ to 1250 N/cm^2 for short-term loading, $c = 4,000$ to $4,500 \text{ N/cm}^2$.

Physical properties (standard values)			
Condition		GC	GM
Density	ρ [kg/dm ³]	8,9	
Coefficient of thermal expansion	α [*10 ⁻⁶ /K]	17,5	
Electrical conductivity	κ [MS/m]	6,1	
Modulus of elasticity	E [kN/mm ²]	100	

Mechanical properties (standard values)			
Condition		GC	GM
Brinell Hardness	HBW	Min. 95	
0,2% - proofstress	R_{p0,2} [N/mm ²]	Min. 180	
Tensile strength	R_m [N/mm ²]	Min. 300	
Elongation	A [%]	10	
Compressive strength	R_d [N/mm ²]	Min. 160	
Max. loading pressure	p_{zul.} [N/mm ²]	Min. 120	

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