

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrOF8-0.3 (БpOΦ8-0.3).

Grade :	BrOF8-0.3 (БpOΦ8-0.3)
Classification :	Wrought tin bronzes
Equivalent grades:	Go here

Chemical composition in % for grade BrOF8-0.3 (БpOΦ8-0.3)

Fe	Si	Ni	P	Al	Cu	Pb	Zn	Sb	Bi	Sn	Impurity
max 0.02	max 0.002	max 0.2	0.26 - 0.35	max 0.002	90.85 - 92.15	max 0.02	max 0.3	max 0.002	max 0.002	7.5 - 8.5	all 0.1

Comment: Cu is a basis; the percentage of Cu is given approximately.

Mechanical properties under T=20°C for grade BrOF8-0.3 (БpOΦ8-0.3)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
soft			400-500		55-65			
hard			1000-1200		1-2			

Brinell hardness for BrOF8-0.3 (БpOΦ8-0.3), soft	HB 10 ⁻¹ = 90 - 100 MPa
Brinell hardness for BrOF8-0.3 (БpOΦ8-0.3), hard	HB 10 ⁻¹ = 180 - 240 MPa

Technological properties of the material BrOF8-0.3 (БpOΦ8-0.3).

Melting temperature :	880 °C
Annealing temperature :	600 - 650 °C

Physical properties for grade BrOF8-0.3 (БpOΦ8-0.3)

T	E 10 ⁻⁵	α 10 ⁶	λ	ρ	C	R 10 ⁹
Grade	MPa	1/Grade	Watt/(m·Grade)	kg/m ³	J/(kg·Grade)	Ohm·m
20	1.18		41.16	8600		175
100		17				

Equivalent steels for grade BrOF8-0.3 (БpOΦ8-0.3)

Warning! Indicated both exact and nearest equivalents.

Germany

DIN, WNr

2.1030

CuSn8

Specification :**Mechanical properties :**

- σ_B - Tensile strength , [MPa]
 σ_T - Yield stress , [MPa]
 δ_5 - Specific elongation at fracture , [%]
 ψ - Reduction of area , [%]
KCU - Impact strength , [kJ / m²]
HB - Brinell hardness , [MPa]

Physical properties :

- T** - Test temperature , [Grade]
E - Young modulus , [MPa]
 α - Coefficient of linear expansion (range 20° - T) , [1/Grade]
 λ - Thermal (heat) condition coefficient , [Watt/(m·Grade)]
 ρ - Density , [kg/m³]
C - Specific heat (range 20° - T) , [J/(kg·Grade)]
R - Electrical resistance , [Ohm·m]

Database of steels and alloys (Marochnik) contains information about chemical composition and properties more then 2500 steels and alloys (stainless steel, alloy steel, carbone steel, structural steel, tool steel, cast iron, aluminum alloy, titanium alloy, copper alloy, nickel alloy, magnesium alloy and others).
 Helpfull for specialists in grade technology, structural engineer, mechanical engineer, metallurgy and metal trader

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