

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrOF7-0.2 (БpOΦ7-0.2).

Grade :	BrOF7-0.2 (БpOΦ7-0.2)
Classification :	Wrought tin bronzes
Equivalent grades:	Go here

Chemical composition in % for grade BrOF7-0.2 (БpOΦ7-0.2)

Fe	Si	Ni	P	Al	Cu	Pb	Zn	Sb	Bi	Sn	Impurity
max 0.05	max 0.005	max 0.2	0.1 - 0.25	max 0.002	91.27 - 92.8	max 0.02	max 0.3	max 0.002	max 0.002	7 - 8	all 0.1

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

Mechanical properties under T=20°C for grade BrOF7-0.2 (БpOΦ7-0.2)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 10025-78			390		40			
Bar, GOST 10025-78			520-570		6-10			
Bar, GOST 10025-78			360-570		55			

Brinell hardness for BrOF7-0.2 (БpOΦ7-0.2) , Bar GOST 10025-78	HB 10 ⁻¹ = 80 MPa
Brinell hardness for BrOF7-0.2 (БpOΦ7-0.2) , Bar GOST 10025-78	HB 10 ⁻¹ = 150 - 180 MPa
Brinell hardness for BrOF7-0.2 (БpOΦ7-0.2) , Bar GOST 10025-78	HB 10 ⁻¹ = 70 MPa

Friction coefficient of the material BrOF7-0.2 (БpOΦ7-0.2) .

Friction coefficient with oil :	0.011
Friction coefficient without oil :	0.33

Technological properties of the material BrOF7-0.2 (БpOΦ7-0.2) .

Melting temperature :	900 °C
Annealing temperature :	600 - 650 °C

Physical properties for grade BrOF7-0.2 (БpOΦ7-0.2)

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	1.15		41.9	8600		170
100		17				

Equivalent steels for grade BrOF7-0.2 (БрОФ7-0.2)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Poland	Czechia	Austria	Inter
-	DIN, WNr	JIS	AFNOR	BS	EN	UNI	PN	CSN	ONORM	ISO
C52100	2.1030 CuSn8	C5210 C5212	CuSn9P	PB104	CuSn8 CW453K	P-CuSn8	CuSn8	423018	CuSn8	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 than 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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