

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrOF6.5-0.4 (БpOΦ6.5-0.4).

Grade :	BrOF6.5-0.4 (БpOΦ6.5-0.4)
Classification :	Wrought tin bronzes
Equivalent grades:	Is absent

Chemical composition in % for grade BrOF6.5-0.4 (БpOΦ6.5-0.4)

Fe	Si	Ni	P	Al	Cu	Pb	Zn	Sb	Bi	Sn	Impurity
max 0.02	max 0.005	max 0.2	0.26 - 0.4	max 0.002	92.15 - 93.64	max 0.02	max 0.3	max 0.002	max 0.002	6 - 7	all 0.1

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

Mechanical properties under T=20°C for grade BrOF6.5-0.4 (БpOΦ6.5-0.4)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
soft			300-450		60-70			
hard			700-800		7-10			

Brinell hardness for BrOF6.5-0.4 (БpOΦ6.5-0.4), soft	HB 10 ⁻¹ = 70 - 90 MPa
Brinell hardness for BrOF6.5-0.4 (БpOΦ6.5-0.4), hard	HB 10 ⁻¹ = 170 - 220 MPa

Friction coefficient of the material BrOF6.5-0.4 (БpOΦ6.5-0.4).

Friction coefficient with oil :	0.01
Friction coefficient without oil :	0.12

Technological properties of the material BrOF6.5-0.4 (БpOΦ6.5-0.4).

Melting temperature :	995 °C
Forging temperature :	700 - 800 °C
Annealing temperature :	600 - 650 °C

Physical properties for grade BrOF6.5-0.4 (БpOΦ6.5-0.4)

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	1.12		71.4	8700		160

100		17.1				
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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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