

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrKH (БрХ).

Grade :	BrKH (БрХ)
Classification :	High-temperature bronzes
Equivalent grades:	Is absent

Chemical composition in % for grade BrKH (БрХ)

Fe	Cr	Cu	Zn	Impurity
max 0.08	0.4 - 1	98.5 - 99.6	max 0.3	all 0.5

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

Mechanical properties under T=20 °C for grade BrKH (БрХ)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
			441	412	34	69	2156	

Brinell hardness for BrKH (БрХ) , deformed	HB 10 ⁻¹ = 115 MPa
Brinell hardness for BrKH (БрХ) , annealed	HB 10 ⁻¹ = 60 MPa

Technological properties of the material BrKH (БрХ) .

Melting temperature :	1073 °C
Forging temperature :	700 - 950 °C
Annealing temperature :	650 °C

Physical properties for grade BrKH (БрХ)

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	1.31	17	314	8920		22

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, carbon 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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