

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrKHTSr (БрХЛр).

Grade :	BrKHTSr (БрХЛр)
Classification :	High-temperature bronzes
Equivalent grades:	Is absent

Chemical composition in % for grade BrKHTSr (БрХЛр)

Ni	Cr	Cu	As	Zr	Pb	Zn	Bi	Sn	Impurity
max 0.03	0.4 - 1	98.82 - 99.57	max 0.01	0.03 - 0.08	max 0.003	max 0.01	max 0.002	max 0.01	all 0.1

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

Mechanical properties under T=20°C for grade BrKHTSr (БрХЛр)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
			500	450		84		

Brinell hardness for BrKHTSr (БрХЛр) , soft	HB 10 ⁻¹ = 65 MPa
Brinell hardness for BrKHTSr (БрХЛр) , hard	HB 10 ⁻¹ = 110 - 140 MPa

Technological properties of the material BrKHTSr (БрХЛр) .

Forging temperature :	700 - 900 °C
Annealing temperature :	700 °C

Physical properties for grade BrKHTSr (БрХЛр)

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	1.3	17.5	366	8920		20

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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