

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrKd1 (БpKд1).

Grade :	BrKd1 (БpKд1) (CuCd1)
Classification :	High-temperature bronzes
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Chemical composition in % for grade BrKd1 (БpKд1)

Cu	Cd	Impurity
98.5 - 99.1	0.9 - 1.2	all 0.3

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

Mechanical properties under T=20°C for grade BrKd1 (БpKд1)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
soft			260-340		35-45			
hard			500-600		1.5-3			

Brinell hardness for BrKd1 (БpKд1) , GOST 4134	HB 10 ⁻¹ = 95 MPa
Brinell hardness for BrKd1 (БpKд1) , soft	HB 10 ⁻¹ = 50 - 70 MPa
Brinell hardness for BrKd1 (БpKд1) , hard	HB 10 ⁻¹ = 95 - 115 MPa

Technological properties of the material BrKd1 (БpKд1) .

Melting temperature :	1040 °C
Forging temperature :	680 - 900 °C
Annealing temperature :	500 - 1000 °C

Physical properties for grade BrKd1 (БpKд1)

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	1.23		297	8900		23

Equivalent steels for grade BrKd1 (БpKд1)

Warning! Indicated both exact and nearest equivalents.

USA	England	Poland	Czechia	Inter
-	BS	PN	CSN	ISO
C16200	C108	CuCd1	423058	CuCd1

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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