

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrMg0.3 (БpMr0.3).

Grade :	BrMg0.3 (БpMr0.3)
Classification :	High-temperature bronzes
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Chemical composition in % for grade BrMg0.3 (БpMr0.3)

Cu	Mg	Impurity
99.3 - 99.6	0.2 - 0.5	all 0.2

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

Mechanical properties under T=20°C for grade BrMg0.3 (БpMr0.3)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
			490			3		

Brinell hardness for BrMg0.3 (БpMr0.3) , GOST 4134	HB 10 ⁻¹ = 90 MPa
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Technological properties of the material BrMg0.3 (БpMr0.3) .

Melting temperature :	1076 °C
Forging temperature :	850 - 900 °C
Annealing temperature :	600 °C

Physical properties for grade BrMg0.3 (БpMr0.3)

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	17.6	243	8910		24

Equivalent steels for grade BrMg0.3 (БpMr0.3)

Warning! Indicated both exact and nearest equivalents.

Germany
DIN, WNr
2.1322 CuMg0.4

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 / m ²]
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/m ³]
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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