

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrO10 (БpO10).

Grade :	BrO10 (БpO10)
Classification :	Tin foundry bronzes
Equivalent grades:	Is absent

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

Mechanical properties under T=20°C for grade BrO10 (БpO10)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
cast in a metal mould			295		3-10			
sand (mould) casting			215	175	3-10			

Brinell hardness for BrO10 (БpO10) , cast in a metal mould	HB 10⁻¹ = 108 MPa
Brinell hardness for BrO10 (БpO10) , sand (mould) casting	HB 10⁻¹ = 68 - 78 MPa

Friction coefficient of the material BrO10 (БpO10).

Friction coefficient with oil :	0.0056
Friction coefficient without oil :	0.17

Technological properties of the material BrO10 (БpO10).

Melting temperature :	1020 °C
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Physical properties for grade BrO10 (БpO10)

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	1.04	18.5	48.1	8800	368.4	

Specification :

Mechanical properties :

- σ_B - Tensile strength , [MPa]
- σ_T - Yield stress, [MPa]
- δ_5 - Specific elongation at fracture , [%]
- ψ - Reduction of area , [%]

