

Database of Steel and Alloy (Marochnik)

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[Home](#) [European steel grades](#) [Steel and Alloy](#) [Search](#) [Equivalent grades](#) [Grading](#) [GOST Standard](#) [Contacts](#)

YOU HERE: [Steel and Alloy](#) -> [Bronze](#)

Characteristics for grade BrO4TS4S17 (БpO4Ц4C17).

Grade :	BrO4TS4S17 (БpO4Ц4C17) (БpO4Ц4-4-17)
Classification :	Tin foundry bronzes
Equivalent grades:	Is absent

Chemical composition in % for grade BrO4TS4S17 (БpO4Ц4C17)

Fe	Si	P	Al	Cu	Pb	Zn	Sb	Sn	Impurity
max 0.4	max 0.05	max 0.1	max 0.05	67.2 - 80.5	14 - 20	2 - 6	max 0.5	3.5 - 5.5	all 1.3

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

Mechanical properties under T=20°C for grade BrO4TS4S17 (БpO4Ц4C17)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
cast in a metal mould, GOST 613-79			147		12			Without heat treatment
sand (mould) casting, GOST 613-79			147		5			Without heat treatment

Brinell hardness for BrO4TS4S17 (БpO4Ц4C17) (without heat treatment), GOST 613-79	HB 10 ⁻¹ = 60 MPa
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Technological properties of the material BrO4TS4S17 (БpO4Ц4C17).

Melting temperature :	970 °C
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Physical properties for grade BrO4TS4S17 (БpO4Ц4C17)

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				8900		

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, 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

[Top](#)

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