

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrO5TS5S5 (БpO5Ц5C5).

Grade :	BrO5TS5S5 (БpO5Ц5C5) (БpOЦ5-5-6)
Classification :	Tin foundry bronzes
Equivalent grades:	Go here

Chemical composition in % for grade BrO5TS5S5 (БpO5Ц5C5)

Fe	Si	P	Al	Cu	Pb	Zn	Sb	Sn	Impurity
max 0.4	max 0.05	max 0.1	max 0.05	80.7 - 88	4 - 6	4 - 6	max 0.5	4 - 6	all 1.3

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

Mechanical properties under T=20°C for grade BrO5TS5S5 (БpO5Ц5C5)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 24301-93			200-240		15-20			
cast in a metal mould, GOST 613-79			176		4			Without heat treatment
sand (mould) casting, GOST 613-79			147		6			Without heat treatment

Brinell hardness for BrO5TS5S5 (БpO5Ц5C5) (without heat treatment), GOST 613-79	HB 10 ⁻¹ = 60 MPa
Brinell hardness for BrO5TS5S5 (БpO5Ц5C5), Bar GOST 24301-93	HB 10 ⁻¹ = 65 - 70 MPa

Friction coefficient of the material BrO5TS5S5 (БpO5Ц5C5).

Friction coefficient with oil :	0.016
Friction coefficient without oil :	0.26

Technological properties of the material BrO5TS5S5 (БpO5Ц5C5).

Casting temperature :	1250 - 1300 °C
Linear shrinkage :	1.5 %

Physical properties for grade BrO5TS5S5 (БpO5Ц5C5)

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	0.926	19.1		8800	393	

Equivalent steels for grade BrO5TS5S5 (БpO5Ц5C5)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Sweden	Poland	Czechia

-	DIN, WNr	JIS	AFNOR	BS	EN	UNI	SS	PN	CSN
C83600 C83800	2.1097 GCuSn5Zn5Pb Rg5	BC6 H5111/class6 H5111/class6C	CuSn5Pb5Zn5	LG2	CuSn5Zn5Pb5- C	GCuSn5Zn5Pb5	CuSn5Pb5Zn5	CuSn5Zn5Pb5	423135

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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