

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrO3TS7S5N (БpO3Ц7C5H).

Grade :	BrO3TS7S5N (БpO3Ц7C5H)
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 BrO3TS7S5N (БpO3Ц7C5H)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
sand (mould) casting			175		8			
sand (mould) casting			205	176	5			

Brinell hardness for BrO3TS7S5N (БpO3Ц7C5H) ,	HB 10⁻¹ = 59 MPa
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Friction coefficient of the material BrO3TS7S5N (БpO3Ц7C5H).

Friction coefficient with oil :	0.028
Friction coefficient without oil :	0.24
Friction coefficient in sea :	0.38

Technological properties of the material BrO3TS7S5N (БpO3Ц7C5H).

Melting temperature :	1022 °C
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Physical properties for grade BrO3TS7S5N (БpO3Ц7C5H)

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	0.84		62.8	8700		
100		17.61			364.3	

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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