

Database of Steel and Alloy (Marochnik)

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Characteristics for grade BrA9Mts2L (БpA9Mц2Л).

Grade :	BrA9Mts2L (БpA9Mц2Л) (БpAMц9-2Л)
Classification :	Tin-free foundry bronzes
Equivalent grades:	Go here

Chemical composition in % for grade BrA9Mts2L (БpA9Mц2Л)

Fe	Si	Mn	Ni	P	Al	Cu	As	Pb	Zn	Sb	Sn	Impurity
max 1	max 0.2	1.5 - 2.5	max 1	max 0.1	8 - 9.5	85.2 - 90.5	max 0.05	max 0.1	max 1.5	max 0.05	max 0.2	all 2.8

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

Mechanical properties under T=20°C for grade BrA9Mts2L (БpA9Mц2Л)

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 493-79			392		20			
sand (mould) casting, GOST 493-79			392		20			

Brinell hardness for BrA9Mts2L (БpA9Mц2Л), cast in a metal mould GOST 493	HB 10 ⁻¹ = 80 MPa
Brinell hardness for BrA9Mts2L (БpA9Mц2Л), sand (mould) casting GOST 493	HB 10 ⁻¹ = 80 MPa

Friction coefficient of the material BrA9Mts2L (БpA9Mц2Л).

Friction coefficient with oil :	0.006
Friction coefficient without oil :	0.18

Technological properties of the material BrA9Mts2L (БpA9Mц2Л).

Melting temperature :	1060 °C
Linear shrinkage :	1.7 %

Physical properties for grade BrA9Mts2L (БpA9Mц2Л)

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	0.903		71.2	7600		110

100

17

Equivalent steels for grade BrA9Mts2L (БpA9Mц2Л)

Warning! Indicated both exact and nearest equivalents.

Czechia
CSN
423144

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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