

Database of Steel and Alloy (Marochnik)

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Characteristics for grade LTS40Mts1.5 (ЛЦ40Мц1.5).

Grade :	LTS40Mts1.5 (ЛЦ40Мц1.5) (ЛМц58-2Л)
Classification :	Cast cooper-zinc alloys
Equivalent grades:	Is absent

Chemical composition in % for grade LTS40Mts1.5 (ЛЦ40Мц1.5)

Fe	Si	Mn	Ni	P	Cu	Pb	Zn	Sb	Sn	Impurity
max 1.5	max 0.1	1 - 2	max 1	max 0.03	57 - 60	max 0.7	36 - 42	max 0.1	max 0.5	all 2

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

Mechanical properties under T=20°C for grade LTS40Mts1.5 (ЛЦ40Мц1.5)

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 17711-93			392		20			
sand (mould) casting, GOST 17711-93			372		20			
centrifugal casting, GOST 17711-93			392		20			

Brinell hardness for LTS40Mts1.5 (ЛЦ40Мц1.5) , cast in a metal mould GOST 17711-93	HB 10 ⁻¹ = 110 MPa
Brinell hardness for LTS40Mts1.5 (ЛЦ40Мц1.5) , sand (mould) casting GOST 17711-93	HB 10 ⁻¹ = 100 MPa
Brinell hardness for LTS40Mts1.5 (ЛЦ40Мц1.5) , centrifugal casting GOST 17711-93	HB 10 ⁻¹ = 110 MPa

Friction coefficient of the material LTS40Mts1.5 (ЛЦ40Мц1.5) .

Friction coefficient with oil :	0.012
Friction coefficient without oil :	0.32

Technological properties of the material LTS40Mts1.5 (ЛЦ40Мц1.5) .

Melting temperature :	880 °C
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Physical properties for grade LTS40Mts1.5 (ЛЦ40Мц1.5)

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		21.2	71.2	8400		108

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	- Termal (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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