

Database of Steel and Alloy (Marochnik)

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Characteristics for grade LTS40S (ЛЦ40С).

Grade :	LTS40S (ЛЦ40С)
Classification :	Cast cooper-zinc alloys
Equivalent grades:	Go here

Chemical composition in % for grade LTS40S (ЛЦ40С)

Fe	Si	Mn	Ni	Al	Cu	Pb	Zn	Sb	Sn	Impurity
max 0.8	max 0.3	max 0.5	max 1	max 0.5	57 - 61	0.8 - 2	35 - 42.2	max 0.05	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 LTS40S (ЛЦ40С)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 24301-93			200-250		15-20			
cast in a metal mould, GOST 17711-93			215		20			
sand (mould) casting, GOST 17711-93			215		12			
centrifugal casting, GOST 17711-93			215		20			

Brinell hardness for	LTS40S (ЛЦ40С) ,	Bar GOST 24301-93	HB 10 ⁻¹ = 70 - 80 MPa
Brinell hardness for	LTS40S (ЛЦ40С) ,	cast in a metal mould GOST 17711-93	HB 10 ⁻¹ = 80 MPa
Brinell hardness for	LTS40S (ЛЦ40С) ,	sand (mould) casting GOST 17711-93	HB 10 ⁻¹ = 70 MPa
Brinell hardness for	LTS40S (ЛЦ40С) ,	centrifugal casting GOST 17711-93	HB 10 ⁻¹ = 80 MPa

Friction coefficient of the material LTS40S (ЛЦ40С).

Friction coefficient with oil :	0.013
Friction coefficient without oil :	0.17

Technological properties of the material LTS40S (ЛЦ40С).

Melting temperature :	885 °C
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Physical properties for grade LTS40S (ЛЦ40С)

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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		20.1	108.8	8500		68

Equivalent steels for grade LTS40S (ЛЦ40С)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Sweden	Czechia
-	DIN,WNr	JIS	AFNOR	BS	EN	UNI	SS	CSN
C85800	G-CuZn37Al1	YBsC3	CuZn40Y40	DCB1	CuZn37Al1-C	GCuZn38Pb2	CuZn39Pb2Al	423321

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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