

Database of Steel and Alloy (Marochnik)

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Characteristics for grade LTS40Mts3ZH (ЛЦ40Мц3Ж).

Grade :	LTS40Mts3ZH (ЛЦ40Мц3Ж) (ЛМцЖ55-3-1)
Classification :	Cast cooper-zinc alloys
Equivalent grades:	Is absent

Chemical composition in % for grade LTS40Mts3ZH (ЛЦ40Мц3Ж)

Fe	Si	Mn	Ni	P	Al	Cu	Pb	Zn	Sb	Sn	Impurity
0.5 - 1.5	max 0.2	3 - 4	max 0.5	max 0.05	max 0.6	53 - 58	max 0.5	34.8 - 43.5	max 0.1	max 0.5	all 1.7

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

Mechanical properties under T=20°C for grade LTS40Mts3ZH (ЛЦ40Мц3Ж)

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			490		10			
sand (mould) casting, GOST 17711-93			441		18			
die casting, GOST 17711-93			392					

Brinell hardness for LTS40Mts3ZH (ЛЦ40Мц3Ж) , cast in a metal mould GOST 17711-93	HB 10⁻¹ = 100 MPa
Brinell hardness for LTS40Mts3ZH (ЛЦ40Мц3Ж) , sand (mould) casting GOST 17711-93	HB 10⁻¹ = 90 MPa

Technological properties of the material LTS40Mts3ZH (ЛЦ40Мц3Ж).

Melting temperature :	870 °C
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Physical properties for grade LTS40Mts3ZH (ЛЦ40Мц3Ж)

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		22	100.5	8500		120

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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