

Database of Steel and Alloy (Marochnik)

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Characteristics for grade L63 (Л63).

Grade :	L63 (Л63)(Л63A)
Classification :	Copper-zinc alloys pressure treated
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Chemical composition in % for grade L63 (Л63)

Fe	P	Cu	Pb	Zn	Sb	Bi	Impurity
max 0.2	max 0.01	62 - 65	max 0.07	34.22 - 37.5	max 0.005	max 0.002	all 0.5

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

Mechanical properties under T=20°C for grade L63 (Л63)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Pipe, GOST 494-90			270					
Bar, GOST 2060-2006			290		33			
Bar, GOST 2060-2006			440		11			
Bar, GOST 2060-2006			290		44			
Wire, GOST 1066-90			540-930					
Wire, GOST 1066-90			310-340		18-34			
Wire, GOST 12920-67			540-880					
Wire, GOST 12920-67			310-340		26-34			
Strip, GOST 931-90			290-400		38			
Strip hotrolled, GOST 931-90			290-390		30			
Strip, GOST 931-90			410-570		8			

Brinell hardness for L63 (Л63) , Sheet GOST 2208-2007	HB 10⁻¹ = 70 MPa
Brinell hardness for L63 (Л63) , Bar GOST 2060-2006	HB 10⁻¹ = 70 MPa
Brinell hardness for L63 (Л63) , Bar GOST 2060-2006	HB 10⁻¹ = 130 MPa

Friction coefficient of the material L63 (Л63) .

Friction coefficient with oil :	0.012
Friction coefficient without oil :	0.39

Technological properties of the material L63 (Л63) .

Melting temperature :	906 °C
Forging temperature :	750 - 880 °C
Annealing temperature :	550 - 650 °C

Physical properties for grade L63 (Л63)

T	E 10⁻⁵	α 10⁶	λ	ρ	C	R 10⁹
Grade	MPa	1/Grade	Watt/(m·Grade)	kg/m³	J/(kg·Grade)	Ohm·m
20	1.16			8440		74
100		20.5				

Equivalent steels for grade L63 (Л63)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Sweden	Poland	Czechia	Austria	Inter
-	DIN,WNr	JIS	AFNOR	BS	EN	UNI	SS	PN	CSN	ONORM	ISO
C27400	2.0321 CuZn37	C2720	CuZn36 U-Z36	CZ108	CuZn36 CW507L	P-CuZn37 P-OT63	CuZn37	CuZn37	423213	CuZn37	CuZn37

Specification :**Mechanical properties :**

- σ_B** - Tensile strength , [MPa]
σ_T - Yield stress , [MPa]
δ₅ - 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 than 2500 steels and alloys (stainless steel, alloy steel, carbon 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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