

Database of Steel and Alloy (Marochnik)

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Characteristics for grade L80 (Л80).

Grade :	L80 (Л80)
Classification :	Copper-zinc alloys pressure treated
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Chemical composition in % for grade L80 (Л80)

Fe	P	Cu	Pb	Zn	Sb	Bi	Impurity
max 0.1	max 0.01	79 - 81	max 0.03	18.7 - 21	max 0.005	max 0.002	all 0.3

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

Mechanical properties under T=20°C for grade L80 (Л80)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Wire, GOST 1066-90			290		25			
Strip, GOST 931-90			260-370		40			
Strip, GOST 931-90			390		3			

Brinell hardness for L80 (Л80) , Sheet GOST 2208-2007	HB 10 ⁻¹ = 120 MPa
Brinell hardness for L80 (Л80) , Sheet GOST 2208-2007	HB 10 ⁻¹ = 65 MPa

Friction coefficient of the material L80 (Л80) .

Friction coefficient with oil :	0.015
Friction coefficient without oil :	0.71

Technological properties of the material L80 (Л80) .

Melting temperature :	1000 °C
Forging temperature :	700 - 850 °C
Annealing temperature :	500 - 650 °C

Physical properties for grade L80 (Л80)

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	1.1		142	8660		60
100		18.8			399.4	

Equivalent steels for grade L80 (Л80)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	European	Italy	Sweden	Poland	Czechia	Austria
-	DIN, WNr	JIS	AFNOR	BS	EN	UNI	SS	PN	CSN	ONORM
C24000	2.0250 CuZn20	C2400	CuZn20 U-ZU20	CZ103	CuZn20	P-OT80	CuZn20	CuZn20	423203	CuZn20

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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