

Database of Steel and Alloy (Marochnik)

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Characteristics for grade LA77-2 (ЛА77-2).

Grade :	LA77-2 (ЛА77-2)
Classification :	Copper-zinc alloys pressure treated
Equivalent grades:	Is absent

Chemical composition in % for grade LA77-2 (ЛА77-2)

Fe	P	Al	Cu	Pb	Zn	Sb	Bi	Impurity
max 0.07	max 0.01	1.7 - 2.5	76 - 79	max 0.07	18.2 - 22.25	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 LA77-2 (ЛА77-2)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Pipe, GOST 21646-2003			320	120	45			
Pipe, GOST 21646-2003			370	150	40			

Brinell hardness for LA77-2 (ЛА77-2) , soft	HB 10 ⁻¹ = 45 - 55 MPa
Brinell hardness for LA77-2 (ЛА77-2) , hard	HB 10 ⁻¹ = 150 - 160 MPa

Technological properties of the material LA77-2 (ЛА77-2).

Melting temperature :	1000 °C
Forging temperature :	720 - 770 °C
Annealing temperature :	600 - 650 °C

Physical properties for grade LA77-2 (ЛА77-2)

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	1.02	18.3	113	8300		75

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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