

# Database of Steel and Alloy (Marochnik)

[splat.kharkov.com/en](http://splat.kharkov.com/en)

[Home](#) [European steel grades](#) [Steel and Alloy](#) [Search](#) [Equivalent grades](#) [Grading](#) [GOST Standard](#) [Contacts](#)

YOU HERE: [Steel and Alloy](#) -> [Latten \(copper-zinc alloy\)](#)

## Characteristics for grade LS64-2 (ЛС64-2).

|                           |                                     |
|---------------------------|-------------------------------------|
| <b>Grade :</b>            | LS64-2 (ЛС64-2)                     |
| <b>Classification :</b>   | Copper-zinc alloys pressure treated |
| <b>Equivalent grades:</b> | <a href="#">Go here</a>             |

## Chemical composition in % for grade LS64-2 (ЛС64-2)

| Fe      | P        | Cu      | Pb      | Zn          | Sb        | Bi        | Impurity |
|---------|----------|---------|---------|-------------|-----------|-----------|----------|
| max 0.1 | max 0.01 | 63 - 66 | 1.5 - 2 | 31.7 - 35.5 | 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 LS64-2 (ЛС64-2)

| Assortment | Dimension | Direct. | $\sigma_B$ | $\sigma_T$ | $\delta_5$ | $\psi$ | KCU                 | Heat treatment |
|------------|-----------|---------|------------|------------|------------|--------|---------------------|----------------|
| -          | mm        | -       | MPa        | MPa        | %          | %      | kJ / m <sup>2</sup> | -              |
| soft       |           |         | 320-380    |            | 55-65      |        |                     |                |
| hard       |           |         | 580-670    |            | 4-6        |        |                     |                |

|                                             |                                     |
|---------------------------------------------|-------------------------------------|
| Brinell hardness for LS64-2 (ЛС64-2) , soft | HB 10 <sup>-1</sup> = 50 - 60 MPa   |
| Brinell hardness for LS64-2 (ЛС64-2) , hard | HB 10 <sup>-1</sup> = 140 - 150 MPa |

## Friction coefficient of the material LS64-2 (ЛС64-2) .

|                                    |      |
|------------------------------------|------|
| Friction coefficient with oil :    | 0.1  |
| Friction coefficient without oil : | 0.22 |

## Technological properties of the material LS64-2 (ЛС64-2) .

|                         |              |
|-------------------------|--------------|
| Melting temperature :   | 910 °C       |
| Annealing temperature : | 620 - 670 °C |

## Physical properties for grade LS64-2 (ЛС64-2)

| T     | E 10 <sup>-5</sup> | $\alpha$ 10 <sup>6</sup> | $\lambda$      | $\rho$            | C            | R 10 <sup>9</sup> |
|-------|--------------------|--------------------------|----------------|-------------------|--------------|-------------------|
| Grade | MPa                | 1/Grade                  | Watt/(m·Grade) | kg/m <sup>3</sup> | J/(kg·Grade) | Ohm·m             |
| 20    | 1.05               |                          | 117            | 8500              |              | 70                |
| 100   |                    | 20.3                     |                |                   |              |                   |

**Equivalent steels for grade LS64-2 ( ЛС64-2 )**

Warning! Indicated both exact and nearest equivalents.

|        |
|--------|
| USA    |
| -      |
| C33200 |

**Specification :****Mechanical properties :**

- $\sigma_B$  - Tensile strength , [MPa]  
 $\sigma_T$  - Yield stress , [MPa]  
 $\delta_5$  - Specific elongation at fracture , [ % ]  
 $\psi$  - Reduction of area , [ % ]  
**KCU** - Impact strength , [ kJ / m<sup>2</sup> ]  
**HB** - Brinell hardness , [MPa]

**Physical properties :**

- T** - Test temperature , [Grade]  
**E** - Young modulus , [MPa]  
 $\alpha$  - Coefficient of linear expansion (range 20° - T ) , [1/Grade]  
 $\lambda$  - Thermal (heat) condition coefficient , [Watt/(m·Grade)]  
 $\rho$  - Density , [kg/m<sup>3</sup>]  
**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

[Top](#)© 2003 - 2013 All rights reserved. [About program.](#)

The entire risk as to use of the Database of Steel and Alloy (Marochnik) content is assumed by you the user

