

Database of Steel and Alloy (Marochnik)

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

YOU HERE: [Steel and Alloy](#) -> [Zinc](#)

Characteristics for grade TSM1 (ЦМ1).

Grade :	TSM1 (ЦМ1)
Classification :	Zinc wrought alloys
Equivalent grades:	Is absent

Chemical composition in % for grade TSM1 (ЦМ1)

Cu	Zn
1 - 1	99 - 99

Comment: **Zn** is a basis; the percentage of **Zn** is given approximately.
 Comment: shows the average concentration of alloying elements

Mechanical properties under T=20°C for grade TSM1 (ЦМ1)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
			200		20			

Brinell hardness for TSM1 (ЦМ1) ,	HB 10 ⁻¹ = 50 MPa
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Physical properties for grade TSM1 (ЦМ1)

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		34.8	105	7180		

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 $20^{\circ} - T$), [1/Grade]
- λ - Thermal (heat) conduction coefficient, [Watt/(m·Grade)]
- ρ - Density, [kg/m³]
- C** - Specific heat (range $20^{\circ} - T$), [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

[Top](#)

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