

Database of Steel and Alloy (Marochnik)

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Characteristics for grade TsA8M1 (ЦА8М1).

Grade :	TsA8M1 (ЦА8М1)
Classification :	Zinc casting alloys
Equivalent grades:	Is absent

Chemical composition in % for grade TsA8M1 (ЦА8М1)

Fe	Si	Al	Cu	Pb	Mg	Zn	Sn	Cd
max 0.1	max 0.015	7.1 - 8.9	0.7 - 1.4	max 0.01	0.01 - 0.06	89.51 - 92.19	max 0.002	max 0.006

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

Mechanical properties under T=20°C for grade TsA8M1 (ЦА8М1)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
cast in a metal mould, GOST 25140-93			235		1.5			
die casting, GOST 25140-93			270		1.5			

Brinell hardness for TsA8M1 (ЦА8М1) , cast in a metal mould GOST 25140-93	HB 10⁻¹ = 70 MPa
Brinell hardness for TsA8M1 (ЦА8М1) , die casting GOST 25140-93	HB 10⁻¹ = 90 MPa

Technological properties of the material TsA8M1 (ЦА8М1) .

Melting temperature :	375 - 404 °C
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Physical properties for grade TsA8M1 (ЦА8М1)

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				6300		

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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