

Database of Steel and Alloy (Marochnik)

splat.kharkov.com/en

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

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

Characteristics for grade TSA4 (ЦА4).

Grade :	TSA4 (ЦА4)
Classification :	Zinc casting alloys
Equivalent grades:	Is absent

Chemical composition in % for grade TSA4 (ЦА4)

Fe	Si	Al	Cu	Pb	Mg	Zn	Sn	Cd
max 0.07	max 0.015	3.5 - 4.5	max 0.06	max 0.01	0.02 - 0.06	95.28 - 96.48	max 0.002	max 0.005

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

Mechanical properties under T=20°C for grade TSA4 (ЦА4)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
die casting, GOST 25140-93			256		1.8			

Brinell hardness for TSA4 (ЦА4) , die casting GOST 25140-93	HB 10 ⁻¹ = 70 MPa
---	------------------------------

Technological properties of the material TSA4 (ЦА4) .

Melting temperature :	381 - 387 °C
-----------------------	--------------

Physical properties for grade TSA4 (ЦА4)

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		26	113	6700	410	

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 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](#)

© 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

