

Database of Steel and Alloy (Marochnik)

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Characteristics for grade CHVG40 (ЧВГ40).

Grade :	CHVG40 (ЧВГ40)
Classification :	Vermicular graphite iron for castings
Equivalent grades:	Is absent

Chemical composition in % for grade CHVG40 (ЧВГ40)

C	Si	Mn	S	P	Cr	Cu	Mg	P3M
3.1 - 3.5	2 - 2.5	0.4 - 1	max 0.025	max 0.08	max 0.2	0.4 - 0.6	0.02 - 0.028	0.1 - 0.2

Mechanical properties under T=20°C for grade CHVG40 (ЧВГ40)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Casting, GOST 28394-89			400	320	1.5			

Brinell hardness for CHVG40 (ЧВГ40) , GOST 28394-89

HB 10⁻¹ = 170 - 220 MPa

Physical properties for grade CHVG40 (ЧВГ40)

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	1.5		39	7200		
100		13				

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) conductivity 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

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