

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 35G (35Г).

Grade :	35G (35Г)
Classification :	Alloy structural steel
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Chemical composition in % for grade 35G (35Г)

C	Si	Mn	Ni	S	P	Cr	Cu
0.32 - 0.4	0.17 - 0.37	0.7 - 1	max 0.3	max 0.035	max 0.035	max 0.3	max 0.3

Mechanical properties under T=20°C for grade 35G (35Г)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 4543-71	Ø 25		570	340	18	45	700	Guenching 860°C, water, Drawing 600°C, air,

Brinell hardness for 35G (35Г) (annealing), GOST 4543-71	HB 10⁻¹ = 207 MPa
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Technological properties for grade 35G (35Г)

Flakes :	weakly predisposed
Temper brittleness:	weakly predisposed

Equivalent steels for grade 35G (35Г)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan	France	England	Poland	Czechia
-	DIN, WNr	JIS	AFNOR	BS	PN	CSN
1035 1037 Gr.80-40	GS20Mn5	SCMn2	35M5	Gr.A	L20G	422709

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]

Weldability :

- without limitations** - welding is done without heating and subsequent heat treating
- limited weldability** - welding is possible under heating up to 100-120 grade and subsequent heat treating
- hard weldability** - obtaining the quality welding needs the additional operations: heating up to 200-300 grade; the heat treating is annealing

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).
Helpful for specialists in grade technology, structural engineer, mechanical engineer, metallurgy and metal trader

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