

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 25KHGT (25XГТ).

Grade :	25KHGT (25XГТ)
Substitute:	18XГТ, 30XГТ, 25XГМ
Classification :	Alloy structural steel
Equivalent grades:	Is absent

Chemical composition in % for grade 25KHGT (25XГТ)

C	Si	Mn	Ni	S	P	Cr	Ti	Cu
0.22 - 0.29	0.17 - 0.37	0.8 - 1.1	max 0.3	max 0.035	max 0.035	1 - 1.3	0.03 - 0.09	max 0.3

Mechanical properties under T=20°C for grade 25KHGT (25XГТ)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 4543-71			1270	980	10	50	690	Normalizing 880 - 895°C, air, Guenching 850°C, oil, Drawing 200°C, water,

Brinell hardness for 25KHGT (25XГТ) (annealing), GOST 4543-71	HB 10 ⁻¹ = 217 MPa
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Technological properties for grade 25KHGT (25XГТ)

Flakes :	predisposed
Temper brittleness:	predisposed

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 / m ²]
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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