

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 12KHN (12XH).

Grade :	12KHN (12XH)
Classification :	Alloy structural steel
Equivalent grades:	Is absent

Chemical composition in % for grade 12KHN (12XH)

C	Si	Mn	Ni	S	P	Cr	Cu
0.09 - 0.15	0.17 - 0.37	0.3 - 0.6	0.5 - 0.8	max 0.035	max 0.035	0.4 - 0.7	max 0.3

Mechanical properties under T=20°C for grade 12KHN (12XH)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar cold-drawn , GOST 10702-78			410-530			70		Annealing
Bar, GOST 4543-71			640	440	10		880	Guenching and drawing

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]

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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