

Database of Steel and Alloy (Marochnik)

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Characteristics for grade AS12KHN (AC12XH).

Grade :	AS12KHN (AC12XH)
Classification :	Rolled steel of improved and high cutting machinability
Equivalent grades:	Is absent

Chemical composition in % for grade AS12KHN (AC12XH)

C	Si	Mn	Ni	S	P	Cr	Cu	Pb	-
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	0.15 - 0.3	S+P <0.06

Mechanical properties under T=20°C for grade AS12KHN (AC12XH)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Blank, GOST 1414-75	to 100		650	450	10		900	Guenching 900 - 920°C, oil, Drawing 150 - 180°C, air,

Brinell hardness for AS12KHN (AC12XH) (cold-worked), GOST 1414-75	HB 10 ⁻¹ = 269 MPa
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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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