

Database of Steel and Alloy (Marochnik)

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Characteristics for grade AS40KHGNM (AC40XГHM).

Grade :	AS40KHGNM (AC40XГHM)
Classification :	Rolled steel of improved and high cutting machinability
Equivalent grades:	Is absent

Chemical composition in % for grade AS40KHGNM (AC40XГHM)

C	Si	Mn	Ni	S	P	Cr	Mo	Cu	Pb	-
0.37 - 0.43	0.17 - 0.37	0.5 - 0.8	0.7 - 1.1	max 0.03	max 0.035	0.6 - 0.9	0.15 - 0.25	max 0.3	0.15 - 0.3	S+P <0.06

Mechanical properties under T=20°C for grade AS40KHGNM (AC40XГHM)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Blank, GOST 1414-75	25		1000	850	12		900	Guenching 830 - 850°C, oil, Drawing 580 - 620°C, air,

Brinell hardness for AS40KHGNM (AC40XГHM) (hot-rolled, annealing) , GOST 1414-75	HB 10 ⁻¹ = 241 MPa
Brinell hardness for AS40KHGNM (AC40XГHM) (cold-drawn, cold-worked) , GOST 1414-75	HB 10 ⁻¹ = 269 MPa
Brinell hardness for AS40KHGNM (AC40XГHM) (high tempering) , GOST 1414-75	HB 10 ⁻¹ = 255 MPa

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]

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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