

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 13KH14N3V2FR (13X14H3B2ΦP).

Grade :	13KH14N3V2FR (13X14H3B2ΦP) (X14HBΦP ЭИ736)
Classification :	High alloy high-temperature steel
Equivalent grades:	Is absent

Chemical composition in % for grade 13KH14N3V2FR (13X14H3B2ΦP)

C	Si	Mn	Ni	S	P	Cr	W	V	Ti	B
0.1 - 0.16	max 0.6	max 0.6	2.8 - 3.4	max 0.025	max 0.03	13 - 15	1.6 - 2.2	0.18 - 0.28	max 0.05	max 0.004

Mechanical properties under T=20°C for grade 13KH14N3V2FR (13X14H3B2ΦP)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 5949-75	to Ø 60		930	735	14	55	880	Guenching 1040 - 1060°C, oil, Drawing 640 - 680°C, air,
Bar, GOST 5949-75			1130	885	12	50	690	Guenching 1040 - 1060°C, air, Drawing 540 - 580°C, air,

Brinell hardness for 13KH14N3V2FR (13X14H3B2ΦP) (annealing), Bar GOST 5949-75	HB 10⁻¹ = 302 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 / 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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