

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 12KH8VF (12X8BΦ).

Grade :	12KH8VF (12X8BΦ)(1X8BΦ)
Classification :	High alloy high-temperature steel
Equivalent grades:	Is absent

Chemical composition in % for grade 12KH8VF (12X8BΦ)

C	Si	Mn	Ni	S	P	Cr	W	V
0.08 - 0.15	max 0.6	max 0.5	max 0.6	max 0.025	max 0.03	7 - 8.5	0.6 - 1	0.3 - 0.5

Mechanical properties under T=20°C for grade 12KH8VF (12X8BΦ)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Pipe hot strain, GOST 550-75			392	167	22	50	980	
Bar, GOST 20072-74			390	165	22	50	980	Annealing 840 - 860°C, oven,

Brinell hardness for 12KH8VF (12X8BΦ) (hot-rolled, annealing) , GOST 20072-74	HB 10⁻¹ = 217 MPa
Brinell hardness for 12KH8VF (12X8BΦ) , Pipe GOST 550-75	HB 10⁻¹ = 170 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 than 2500 steels and alloys (stainless steel, alloy steel, carbene 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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