

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 12Kh2NM1FA (12X2HM1ΦA).

Grade :	12Kh2NM1FA (12X2HM1ΦA)
Classification :	Alloy structural steel
Equivalent grades:	Is absent

Chemical composition in % for grade 12Kh2NM1FA (12X2HM1ΦA)

C	Si	Mn	Ni	S	P	Cr	Mo	V	Cu
0.09 - 0.16	0.17 - 0.37	0.6 - 0.9	1.2 - 1.6	max 0.025	max 0.025	1.9 - 2.4	0.7 - 1	0.18 - 0.28	max 0.25

Mechanical properties under T=20°C for grade 12Kh2NM1FA (12X2HM1ΦA)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet thick, GOST 11269-76			490-740		15			Normalizing
Sheet thick, GOST 11269-76			980		11		590	Guenching and drawing
Sheet thin, GOST 11268-76			490-740		15			Normalizing
Sheet thin, GOST 11268-76			980		11			Guenching and drawing

Brinell hardness for 12Kh2NM1FA (12X2HM1ΦA) (normalize), Sheet thick GOST 11269-76	HB 10⁻¹ = 156 - 217 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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