

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 8KH3 (8X3).

Grade :	8KH3 (8X3)
Substitute:	7X3
Classification :	Die tool steel
Equivalent grades:	Is absent

Chemical composition in % for grade 8KH3 (8X3)

C	Si	Mn	Ni	S	P	Cr	Mo	W	V	Ti	Cu
0.75 - 0.85	0.1 - 0.4	0.15 - 0.45	max 0.4	max 0.03	max 0.03	3.2 - 3.8	max 0.2	max 0.2	max 0.15	max 0.03	max 0.3

Temperature of critical points for grade 8KH3 (8X3).

$Ac_1 = 785$, $Ac_3(Ac_m) = 830$, $Ar_3(Arc_m) = 770$, $Ar_1 = 750$, $Mn = 370$

Mechanical properties under T=20°C for grade 8KH3 (8X3)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
			1340	1270	8	25	340	Guenching 870°C, oil, Drawing 500°C, 2h,

Brinell hardness for 8KH3 (8X3) (annealing) , GOST 5950-2000

HB 10 ⁻¹ = 241 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 / 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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