

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 4KH4VMFS (4X4BMΦC).

Grade :	4KH4VMFS (4X4BMΦC) (ДИ22)
Classification :	Die tool steel
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Chemical composition in % for grade 4KH4VMFS (4X4BMΦC)

C	Si	Mn	Ni	S	P	Cr	Mo	W	V	Cu
0.37 - 0.44	0.6 - 1	0.2 - 0.5	max 0.6	max 0.03	max 0.03	3.2 - 4	1.2 - 1.5	0.8 - 1.2	0.6 - 0.9	max 0.3

Temperature of critical points for grade 4KH4VMFS (4X4BMΦC).

$A_{c1} = 830$, $A_{c3}(A_{cm}) = 910$, $A_{r3}(A_{rcm}) = 750$, $A_{r1} = 670$, $Mn = 255$

Mechanical properties under T=20°C for grade 4KH4VMFS (4X4BMΦC)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bars			1700	1500			440	Guenching 1050 - 1070°C, oil, Drawing 620 - 630°C, Drawing 560 - 580°C,

Brinell hardness for 4KH4VMFS (4X4BMΦC) (heat treatment), GOST 5950-2000

HB 10⁻¹ = 241 MPa

Equivalent steels for grade 4KH4VMFS (4X4BMΦC)

Warning! Indicated both exact and nearest equivalents.

USA	Germany	Japan
-	DIN, WNr	JIS
H12 T20812	30WCrV17-2 45WCrV7 X30WCrV5-3 X30WCrV9-3 X40CrMoV5-1	SKD62

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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