

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 4KHV2S (4XB2C).

Grade :	4KHV2S (4XB2C)
Substitute:	4X5B2ΦC, 3X2B8Φ, 4X8B2, 4X3B8M, 4X3B2M2
Classification :	Die tool steel
Equivalent grades:	Go here

Chemical composition in % for grade 4KHV2S (4XB2C)

C	Si	Mn	Ni	S	P	Cr	W	Cu
0.35 - 0.45	0.6 - 0.9	0.15 - 0.4	max 0.35	max 0.03	max 0.03	1 - 1.3	2 - 2.5	max 0.3

Temperature of critical points for grade 4KHV2S (4XB2C).

$Ac_1 = 780$, $Ac_3(Ac_m) = 840$, $Mn = 315$

Mechanical properties under T=20°C for grade 4KHV2S (4XB2C)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Steel			1470	1300	8	35	290	Guenching 880°C, oil,

Brinell hardness for 4KHV2S (4XB2C) (annealing) ,

HB 10 ⁻¹ = 229 MPa

Technological properties for grade 4KHV2S (4XB2C)

Weldability:	is not used.
Flakes :	predisposed
Temper brittleness:	not predisposed

Equivalent steels for grade 4KHV2S (4XB2C)

Warning! Indicated both exact and nearest equivalents.

Germany
DIN,WNr
35WCrV7

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]

Weldability :

without limitations	- welding is done without heating and subsequent heat treeting
limited weldability	- welding is possible under heating up to 100-120 grade and subsequent heat treeting
hard weldability	- obtaining the quality welding needs the additional operations:heating up to 200-300 grade; the heat treeting ia annealing

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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