

Database of Steel and Alloy (Marochnik)

splat.kharkov.com/en

[Home](#) [European steel grades](#) [Steel and Alloy](#) [Search](#) [Equivalent grades](#) [Grading](#) [GOST Standard](#) [Contacts](#)

YOU HERE: [Steel and Alloy](#) -> [Tool steel](#)

Characteristics for grade 5KH3V3MFS (5X3B3MΦC).

Grade :	5KH3V3MFS (5X3B3MΦC) (ДИ23)
Classification :	Die tool steel
Equivalent grades:	Go here

Chemical composition in % for grade 5KH3V3MFS (5X3B3MΦC)

C	Si	Mn	Ni	S	P	Cr	Mo	W	V	Nb	Cu
0.45 - 0.52	0.5 - 0.8	0.2 - 0.5	max 0.4	max 0.03	max 0.03	2.5 - 3.2	0.8 - 1.1	3 - 3.6	1.5 - 1.8	0.05 - 0.15	max 0.3

Temperature of critical points for grade 5KH3V3MFS (5X3B3MΦC).

$A_{c1} = 780$, $A_{c3}(A_{cm}) = 920$, $A_{r3}(A_{rcm}) = 725$

Mechanical properties under T=20°C for grade 5KH3V3MFS (5X3B3MΦC)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bars	15		1680	1500	8	38	250	Guenching 1130°C, oil, Drawing

Brinell hardness for 5KH3V3MFS (5X3B3MΦC) (annealing) , GOST 5950-2000

HB 10⁻¹ = 229 - 241 MPa

Equivalent steels for grade 5KH3V3MFS (5X3B3MΦC)

Warning! Indicated both exact and nearest equivalents.

Germany
DIN, WNr
30WCrV17-2 X30WCrV5-3 X30WCrV9-3

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

[Top](#)

© 2003 - 2013 All rights reserved. [About program.](#)

The entire risk as to use of the Database of Steel and Alloy (Marochnik) content is assumed by you the user

