

Database of Steel and Alloy (Marochnik)

splav.kharkov.com/en

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

YOU HERE: [Steel and Alloy](#) -> [High-temperature or heat-resistant steel and alloy](#)

Characteristics for grade 10KH15N25M3V3TYUK (10X15H25M3B3TIOK).

Grade :	10KH15N25M3V3TYUK (10X15H25M3B3TIOK)
Classification :	High alloy high-temperature steel
Equivalent grades:	Is absent

Chemical composition in % for grade 10KH15N25M3V3TYUK (10X15H25M3B3TIOK)

Fe	C	Si	Mn	Ni	S	P	Cr	Mo	W	Co	Ti	Al	B
43.75 - 54.8	max 0.1	max 0.5	1 - 2	24 - 28	max 0.02	max 0.02	14 - 16	2 - 3	2 - 3	0.5 - 1	0.9 - 1.3	0.8 - 1.3	max 0.01

Mechanical properties under T=20°C for grade 10KH15N25M3V3TYUK (10X15H25M3B3TIOK)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Strip		longitudinal	890	420	33	47	1400	Guenching 1080 - 1100°C, water, Ageing Cooling air,

Brinell hardness for 10KH15N25M3V3TYUK (10X15H25M3B3TIOK) ,

HB 10⁻¹ = 228 MPa

Physical properties for grade 10KH15N25M3V3TYUK (10X15H25M3B3TIOK)

T	E 10 ⁻⁵	α 10 ⁶	λ	ρ	C	R 10 ⁹
Grade	MPa	1/Grade	Watt/(m·Grade)	kg/m ³	J/(kg·Grade)	Ohm·m
20	2.02			8160		
100	1.99	14.5				
200	1.94	15.8				
300	1.9	16.1				
400	1.83	16.2				
500	1.77	16.8				
600	1.69	17.1				
700	1.61	17.4				
800	1.53					
T	E 10 ⁻⁵	α 10 ⁶	λ	ρ	C	R 10 ⁹

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]

Physical properties :

T - Test temperature , [Grade]
E - Young modulus , [MPa]
 α - Coefficient of linear expansion (range 20° - T) , [1/Grade]
 λ - Thermal (heat) condition coefficient , [Watt/(m·Grade)]
 ρ - Density , [kg/m³]
C - Specific heat (range 20° - T) , [J/(kg·Grade)]
R - Electrical resistance , [Ohm·m]

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

