

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 KHN55VMTKYU (XH55BMTKIO).

Grade :	KHN55VMTKYU (XH55BMTKIO) (ЭИ929 ХН55БМТКЮ-ВД ЭИ929-ВД)
Classification :	High-temperature or heat-resistant alloy
Equivalent grades:	Is absent

Chemical composition in % for grade KHN55VMTKYU (XH55BMTKIO)

C	Si	Mn	S	P	Cr	Mo	W	V	Co	Ti	Al	B
0.04 - 0.1	max 0.5	max 0.5	max 0.01	max 0.015	9 - 12	4 - 6	4.5 - 6.5	0.2 - 0.8	12 - 16	1.4 - 2	3.6 - 4.5	max 0.02

Mechanical properties under T=20°C for grade KHN55VMTKYU (XH55BMTKIO)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 23705-79			980-1180	730-780	8-12	9-15		

Brinell hardness for KHN55VMTKYU (XH55BMTKIO) (quenching, ageing), Bar GOST 23705-79	HB 10 ⁻¹ = 285 - 341 MPa
--	-------------------------------------

Physical properties for grade KHN55VMTKYU (XH55BMTKIO)

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						
100		10.8				
200		11.7				
300		12.4				
400		12.8				
500		13.4				
600		13.8				
700		14.1				
800		14.5				
900		15.5				
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 / m ²]
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/m ³]
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 than 2500 steels and alloys (stainless steel, alloy steel, carbon steel, structural steel, tool steel, cast iron, aluminum alloy, titanium alloy, copper alloy, nickel alloy, magnesium alloy and others).
Helpful 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

