

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](#) -> [Precision alloy](#)

Characteristics for grade KHN20YUS (XH20ЮC).

Grade :	KHN20YUS (XH20ЮC)
Classification :	Precision alloy with higt electric resistance
Equivalent grades:	Go here

Chemical composition in % for grade KHN20YUS (XH20ЮC)

Fe	C	Si	Mn	Ni	S	P	Cr	Ce	Ti	Al	Zr	Ca	-
51.77 - 58.2	max 0.08	2 - 2.7	0.3 - 0.8	19.5 - 21.5	max 0.02	max 0.03	19 - 21	max 0.1	max 0.2	1 - 1.5	max 0.2	max 0.1	Ca, Ce, Zr- расчет

Mechanical properties under T=20°C for grade KHN20YUS (XH20ЮC)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Wire, GOST 12766.1-90			780		25			
Band, GOST 12766.2-90	0.1 - 3.2		736		25			

Technological properties of the material KHN20YUS (XH20ЮC) .

Melting temperature :	1380 °C
------------------------------	---------

Physical properties for grade KHN20YUS (XH20ЮC)

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				7700		1020
100		19			480	

Equivalent steels for grade KHN20YUS (XH20ЮC)

Warning! Indicated both exact and nearest equivalents.

Germany	European	Poland
DIN,WNr	EN	PN
X16CrNi25-20	1.4843	H23N18

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	- Termal (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 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

