

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](#) -> [Structural steel](#)

Characteristics for grade 07KH21G7AN5 (07X21Г7AH5).

Grade :	07KH21G7AN5 (07X21Г7AH5) (X21Г7AH5 ЭП222)
Classification :	Cryogenic structural steel
Equivalent grades:	Is absent

Chemical composition in % for grade 07KH21G7AN5 (07X21Г7AH5)

C	Si	Mn	Ni	S	P	Cr	N
max 0.07	max 0.7	6 - 7.5	5 - 6	max 0.03	max 0.03	19.5 - 21	0.15 - 0.25

Mechanical properties under T=20°C for grade 07KH21G7AN5 (07X21Г7AH5)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 5949-75	to Ø 60		690	365	40	50	1270	Guenching 1000 - 1050°C, air,

Physical properties for grade 07KH21G7AN5 (07X21Г7AH5)

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	2.07					

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 - Termal (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

