

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 36KH18N25S2 (36X18H25C2).

Grade :	36KH18N25S2 (36X18H25C2) (4X18H25C2)
Classification :	High alloy high-temperature steel
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Chemical composition in % for grade 36KH18N25S2 (36X18H25C2)

Fe	C	Si	Mn	Ni	S	P	Cr
50.045 - 57.68	0.32 - 0.4	2 - 3	max 1.5	23 - 26	max 0.02	max 0.035	17 - 19

Mechanical properties under T=20°C for grade 36KH18N25S2 (36X18H25C2)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Bar, GOST 5949-75		longitudinal	640	345	25	40		Guenching

Physical properties for grade 36KH18N25S2 (36X18H25C2)

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			7800		
100		13	15			
200	1.91	13.4				
300	1.86	14.7				
400	1.78					
500	1.71	16.1	22.8			
600	1.62		25.5			
700	1.54		26.3			
800	1.47		37.4			
T	E 10 ⁻⁵	α 10 ⁶	λ	ρ	C	R 10 ⁹

Equivalent steels for grade 36KH18N25S2 (36X18H25C2)

Warning! Indicated both exact and nearest equivalents.

Poland
PN
H18N25S2

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 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

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