

Database of Steel and Alloy (Marochnik)

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Characteristics for grade 10KHNDP (10ХНДП).

Grade :	10KHNDP (10ХНДП)
Classification :	Low alloy structural steel for welding construct
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Chemical composition in % for grade 10KHNDP (10ХНДП)

C	Si	Mn	Ni	S	P	Cr	N	Al	Cu	As
max 0.12	0.17 - 0.37	0.3 - 0.6	0.3 - 0.6	max 0.04	0.07 - 0.12	0.5 - 0.8	max 0.008	0.08 - 0.15	0.3 - 0.5	max 0.08

Mechanical properties under T=20°C for grade 10KHNDP (10ХНДП)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet, GOST 19282-73	5 - 9		480	350	20			

Technological properties for grade 10KHNDP (10ХНДП)

Weldability:	without limitations.
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Equivalent steels for grade 10KHNDP (10ХНДП)

Warning! Indicated both exact and nearest equivalents.

England	Poland	Czechia
BS	PN	CSN
S355J0WP WR50A	10HNAP 10XHAP	15217

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]

Weldability :

without limitations	- welding is done without heating and subsequent heat treating
limited weldability	- welding is possible under heating up to 100-120 grade and subsequent heat treating

hard weldability

- obtaining the quality welding needs the additional operations: heating up to 200-300 grade; the heat treating ia annealing

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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