



ELECTROVEK-STEEL

D N I P R O P E T R O V S K C I T Y , U K R A I N E

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Grade :	XH78T
Substitute:	XH38BT, 12X25H16Г7AP, 20X23H18
Classification :	High-temperature or heat-resistant alloy

Chemical composition in % of the grade XH78T .

Fe	C	Si	Mn	Ni	S	P	Cr	Ti
max 6	max 0.12	max 0.8	max 0.7	70.003 - 80.85	max 0.012	max 0.015	19 - 22	0.15 - 0.35

Mechanical properties under T=20°C of the grade XH78T .

Assortment	Dimension	Direct.	σ_b	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Sheet	to 3.9		860		35			Guenching 980 - 1020°C, Cooling air,
Bar	to \varnothing 30		700	300	30	50		
Sheet	4 - 11		880		30			Guenching 980 - 1020°C, Cooling air,
Forging			588	196	25	35		

Brinell hardness of the grade XH78T (quenching) ,

HB 10⁻¹= 200 MPa

Physical properties of the grade XH78T .

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	2.24			8400		1090
100	2.19	12.2	14.6	8380		1099
200	2.13	13	16.7	8340		1108
300	2.06	13.4	18.5	8310		1117
400	2	13.8	20.6	8260		1127
500	1.93	14.1	22.7	8220		1153
600	1.84	14.7	24.8	8180		1135
700		15.4	26.8	8130		1126
800		15.5	28.9	8090		1123

900				8040		
T	E 10⁻⁵	α 10⁶	λ	ρ	C	R 10⁹