

You would find 12X18H10T technical datasheet

www.semetalgroup.com

12X18H10T chemical composition, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. 12X18H10T product scope:

Round bars, sheet, plates, steel coils, steel pipes, forged flanges, pipe fittings and other materials application.

Grade :	12KH18N10T (12X18H10T) (X18H10T)
Substitute:	08X18Г8H2T, 10X14Г14H4T, 12X17Г9AH4, 08X22H6T, 08X17T, 15X25T, 12X18H9T

Chemical composition in % for grade 12KH18N10T (12X18H10T)

C	Si	Mn	Ni	S	P	Cr	Cu	-
max 0.12	max 0.8	max 2	9 – 11	max 0.02	max 0.035	17 – 19	max 0.3	(5 C – 0.8) Ti, остальное Fe

Mechanical properties under T=20°C for grade 12KH18N10T (12X18H10T)

Assortment	Dimension	Direct.	σ_B	σ_T	δ_5	ψ	KCU	Heat treatment
-	mm	-	MPa	MPa	%	%	kJ / m ²	-
Pipe cooling strain, GOST 9941-81			549		35			
Pipe hot strain, GOST 9940-81			529		40			
Bar, GOST 5949-75	to Ø 60		510	196	40	55		Guenching 1020 - 1100°C, Cooling air,
Wire, GOST 18143-72			540-830		20-25			
Forging, GOST 25054-81	to 1000		510	196	35-38	40-52		Guenching 1050 - 1100°C, water,
Sheet thick, GOST 7350-77			530	235	38			Guenching 1000 - 1080°C, Cooling water,
Sheet thin, GOST 5582-75			530	205	40			Guenching 1050 - 1080°C, Cooling water,
Sheet thin cold-worked , GOST 5582-75			880-1080		10			
Sheet thin, GOST 5582-75			740		25			

Physical properties of grade 12X18H10T

Property	Density kg/dm3	Temperature T °C/F	Specific heat J / kgK	Thermal conductivity W/mK	Electric resistance μΩ·cm
285 (≥)	983 (≥)	21	11	31	Solution and Aging, Annealing, Ausaging, Q+T,etc
Creep strain					
Temp. °C/°F	limit (10000h) (Rp1,0) N/mm2	Creep rupture strength (10000h) (Rp1,0) N/mm2	-	-	-
	343	728	853	-	-

12X18H10T products supply range

Product type	Products	Dimension	Processes	Deliver Status
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and cold rolling	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Steel Bar	Round Bar, Flat Bar, Square Bar	Φ8-1200mm*L	Forging, hot rolling and cold rolling, Cast	Black, Rough Turning, Shot Blasting,
Coil / Strip	Steel Coil /Steel Strip	0.03-16.0x1200mm	Cold-Rolled & Hot-Rolled	Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting
Pipes / Tubes	Seamless Pipes/Tubes, Welded Pipes/Tubes	OD:6-219mm x WT:0.5-20.0mm	Hot extrusion, Cold Drawn, Welded	Annealed, Solution and Aging, Q+T, ACID-WASHED
Flanges	Forged flanges	1/2" -60"	Forged	
Pipe fittings	Elbow,Tee.Reducer,caps	1/2" -60"	Seamless/welded	