

This page is mainly introduced the X6CrNiMoTi17-12 chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X6CrNiMoTi17-12, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Data Table for Grades Stainless Steels X6CrNiMoTi17-12

X6CrNiMoTi17-12 Standard Number:		
ITEM	Standard Number	Descriptions
1	ISO 9327-5 (1999)	Steel forgings and rolled or forged bars for pressure purposes - Technical delivery conditions - Part 5: Stainless steels
2	ISO 9329-4 (1997)	Seamless steel tubes for pressure purposes - Technical delivery conditions - Part 4: Austenitic stainless steels
3	ISO 9330-6 (1997)	Welded steel tubes for pressure purposes - Technical delivery conditions - Part 6: Longitudinally welded austenitic stainless steel tubes
4	ISO 9328-5	Steel plates and strips for pressure purposes - Technical delivery conditions - Part 5: Weldable fine grain steels, thermomechanically rolled

X6CrNiMoTi17-12 Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C		0.08
Si		1.00
Mn		2.00
P		0.045
S		0.030
Cr	16.50	18.50
Mo	11.00	14.00
Ni	2.00	2.50
Ti	5×C□	0.80

X6CrNiMoTi17-12 Physical Properties		
Tensile strength	115-234	σ _b /MPa
Yield Strength	23	σ _{0.2} ≥/MPa
Elongation	65	δ ₅ ≥ (%)
ψ	-	ψ ≥ (%)

Akv	-	Akv≥/J
HBS	123-321	-
HRC	30	-

X6CrNiMoTi17-12 Mechanical Properties

Tensile strength	231-231	σ_b /MPa
Yield Strength	154	$\sigma_{0.2} \geq$ /MPa
Elongation	56	$\delta 5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	Akv≥/J
HBS	235-268	-
HRC	30	-

X6CrNiMoTi17-12 Heat Treatment Regime

Annealing	Quenching	Tempering	Normalizing	Q & T
√	√	√	√	√

X6CrNiMoTi17-12 Range of products

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

We can produce Stainless Steels the specifications follows: