This page is mainly introduced the 0Cr17Ni12Mo2 chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 0Cr17Ni12Mo2,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 0Cr17Ni12Mo2

0Cr17Ni12Mo2 Standard Number:		
ITEM	Standard Number	Descriptions
1	GB 13296 (2007)	Seamless stainless steel tubes for boiler and heat exchanger
2	GB 4238 (1992)	Heat-resisting steel sheets and plates
3	GB/T 1220 (1992)	Stainless steel bars
4	GB/T 1221 (1992)	Heat-resisting steel bars
5	GB/T 12770 (2002)	Welded stainless steel tubes for machine structures
6	GB/T 12771 (2000)	Welded stainless steel pipes for liquid delivery
7	GB/T 14975 (2002)	Stainless steel seamless tubes for structures
8	GB/T 14976 (2002)	Stainless steel seamless tubes for fluid transport
9	GB/T 3090 (2000)	Stainless steel small diameter seamless steel tubes
10	GB/T 3280 (2007)	Cold rolled stainless steel sheets and plates
11	GB/T 4226 (2004)	Cold finished stainless steel bars
12	GB/T 4237 (1992)	Hot rolled stainless steel sheets and plates
13	GB/T 4239 (1991)	Cold rolled stainless steel and heat resisting steel strips
14	GB/T 4240 (1993)	Stainless steel wires
15	GB/T 4356 (2002)	Stainless steel wire rods
16	JB 4728 (2000)	Stainless Steel Forgings for Pressure Vessels

0Cr17Ni12Mo2 Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C		0.08
Si		1.00
Mn		2.00
P		0.035
S		0.030
Ni	10.00	14.00
Cr	16.00	18.50

Mo	2.00	3.00

0Cr17Ni12Mo2 Physical Properties

Tensile strength	115-234	σb/MPa
Yield Strength	23	σ 0.2 ≥/MPa
Elongation	65	δ5≥ (%)
ψ	-	ψ≥ (%)
Akv	-	Akv≥/J
HBS	123-321	-
HRC	30	-

0Cr17Ni12Mo2 Mechanical Properties

Tensile strength	231-231	σb/MPa
Yield Strength	154	σ 0.2 ≥/MPa
Elongation	56	δ5≥(%)
ψ	-	ψ≥(%)
Akv	-	Akv≥/J
HBS	235-268	-
HRC	30	-

0Cr17Ni12Mo2 Heat Treatment Regime

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

0Cr17Ni12Mo2 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

□ □ □□□ □□□□ □□□□□□□□□□□□□□□□□

Note:
(1) listed in the table apex diameter (d), to steel thickness (a) multiples said.
(2) in the ASTM A6 standard specified scope can meet any additional conditions.
(3) from the standard for 50 mm (2 in).
Mechanical properties
Mechanische Eigenschaften
Caracteristiques mecaniques
ReH Minimum yield strength / Mindestwert der oberen Streckgrenze / Limite d'elasticite minimale
Rm Tensile strength / Zugfestigkeit / Resistance a la traction
A Minimum elongation / Mindestwert der Bruchdehnung / Allongement minimal
J Notch impact test / Kerbschlagbiegeversuch / Essai de flexion par choc

Round bar:
Diameter : 1mm-2000mm
Square bar:
Size: 50mm * 50mm-600mm *600mm
Plate steel/flat bar:
Size: Thickness: 0.1mm-800mm Width: 10mm to 1500mm
Tube/pipe:
Size: OD: 6-219mm WT: 1-35 mm.
Cold-rolled sheet: Thickness: 2-5mm Width:1000mm Length: 2000mm
Hot-rolled sheet: Thickness:6-80mm Width: 210-610mm
Length: We can supply any length based on the customer's requirement.
Forging/hot rolling/ extrusion of steel.
Forging: Shafts with flanks/pipes/tubes/slugs/donuts/cubes/other shapes
Finished goods condition: hot forging/hot rolling + annealing/normalizing + tempering/quenching + tempering/any conditions based on the customer's requirement
Surface conditions: scaled (hot working finish)/ground/rough machining/fine machining/based on the customer's requirement
Furnaces for metallurgical processing: electrode arc + LF/VD/VOD/ESR/Vacuum consumable electrode.
Ultrasonic inspection: 100% ultrasonic inspection for any inperfections or based on the customer's requirement.
UTS according to SEP 1921 C/c,D/d,E/e;A388 or GB/T 6402
Excellent service for all kinds of industries, with advantages of technologies, equipment and price.
We serve you with our honesty, integrity, and professionality.