This page is mainly introduced the X2CrNi18-9 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X2CrNi18-9,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.

Datasheet for Steel Grades Specialsteel X2CrNi18-9

X2CrNi18-9 Standard Number:		
ITEM	Standard Number	Descriptions
1	ISO 15510 (2010)	Stainless steels -- Chemical composition
2	ISO 16143-1 (2004)	Stainless steels for general purposes -- Part 1: Flat products
3	ISO 16143-2 (2004)	Stainless steels for general purposes -- Part 2: Semi-finished products, bars, rods and sections
4	ISO 16143-3 (2005)	Stainless steels for general purposes -- Part 3: Wire
5	ISO 9328-7 (2011)	Steel flat products for pressure purposes - Technical delivery conditions - Part 7: Stainless steels
6	ISO/TS 15510 (2003)	Stainless steels - Chemical composition

X2CrNi18-9 Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C		0.03
Si		1.00
Mn		1.00
P		0.045
S		0.030
Cr	17.50	19.50
Ni	8.00	10.00
Mo		
N		0.11

C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Stainless steels - Chemical composition

X2CrNi18-9 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	-

X2CrNi18-9 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	-

X2CrNi18-9 Heat Treatment Regime

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

X2CrNi18-9 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,	Φ8-1200mm*L	Forging, hot rolling and	Black, Rough Turning,

	Square Bar		cold rolling, Cast	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 Specialsteel the specifications follows: