This page is mainly introduced the 1Cr18Ni9 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1Cr18Ni9,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.

Datasheet for Steel Grades Specialsteel 1Cr18Ni9

1Cr18Ni9 Standard Number:		
ITEM	Standard Number	Descriptions
1	GB 13296 (2007)	Seamless stainless steel tubes for boiler and heat exchanger
2	GB 2270 (1980)	Seamless tubes
3	GB 5310 (1999)	Seamless steel tubes and pipes for high pressure boiler
4	GB/T 1220 (1992)	Stainless 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 18705 (2002)	Welded stainless steel pipes for decoration
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)	ainless steel wires
15	GB/T 4356 (2002)	Stainless steel wire rods
16	JB/T 6398 (2006)	Heavy stainless acid resistant and heat resistant steel forgings

1Cr18Ni9 Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C		0.15
Si		1.00
Mn		2.00
P		0.035
S		0.030
Ni	8.00	10.00

Cr			17.00				19.00		
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

1Cr18Ni9

1Cr18Ni9 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	-

1Cr18Ni9 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	-

1Cr18Ni9 Heat Treatment Regime				
Annealing	**Quenching**	**Tempering**	**Normalizing**	**Q & T**
√	√	√	√	√

1Cr18Ni9 Range of products				
Product type	Products	Dimension	Processes	Deliver Status
Plates / Sheets	Plates / Sheets	0.08-200mm(T)*W*L	Forging, hot rolling and	Annealed, Solution and

			cold rolling	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 Specialsteel the specifications follows: