

This page is mainly introduced the 0Cr18Ni11Nb Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 0Cr18Ni11Nb, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 0Cr18Ni11Nb

0Cr18Ni11Nb Standard Number:		
ITEM	Standard Number	Descriptions
1	GB 13296 (2007)	Heavy stainless acid resistant and heat resistant steel forgings
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 3280 (2007)	Cold rolled stainless steel sheets and plates
10	GB/T 4226 (2004)	Cold finished stainless steel bars
11	GB/T 4237 (1992)	Hot rolled stainless steel sheets and plates
12	GB/T 4239 (1991)	Cold rolled stainless steel and heat resisting steel strips
13	GB/T 4240 (1993)	Stainless steel wires
14	GB/T 4356 (1984)	Stainless steel wire rods
15	JB/T 6398 (2006)	Heavy stainless acid resistant and heat resistant steel forgings

0Cr18Ni11Nb Chemical composition(mass fraction)(wt.%)		
Chemical	Min.(%)	Max.(%)
C		0.08
Si		1.00
Mn		2.00
P		0.035
S		0.030
Ni	9.00	13.00

Cr			17.00				19.00			
Nb							10xC□			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta	
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other	

0Cr18Ni11Nb

0Cr18Ni11Nb Physical Properties

Tensile strength	115-234	σ_b /MPa
Yield Strength	23	$\sigma_{0.2} \geq$ /MPa
Elongation	65	$\delta_5 \geq$ (%)
ψ	-	$\psi \geq$ (%)
Akv	-	$Akv \geq$ /J
HBS	123-321	-
HRC	30	-

0Cr18Ni11Nb 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	-	$Akv \geq$ /J
HBS	235-268	-
HRC	30	-

0Cr18Ni11Nb Heat Treatment Regime

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

0Cr18Ni11Nb 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 Specialsteel the specifications follows: