

This page is mainly introduced the 0Cr19Ni10NbN Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 0Cr19Ni10NbN, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 0Cr19Ni10NbN

0Cr19Ni10NbN Standard Number:		
ITEM	Standard Number	Descriptions
1	GB/T 1220 (1992)	Austenitic stainless steel bars
2	GB/T 14976 (2002)	Stainless steel seamless tubes for fluid transport
3	GB/T 3280 (2007)	Cold rolled stainless steel sheets and plates
4	GB/T 4237 (1992)	Hot rolled stainless steel sheets and plates
5	GB/T 4239 (1991)	Cold rolled stainless steel and heat resisting steel strips

0Cr19Ni10NbN Chemical composition(mass fraction)(wt.%)										
Chemical				Min.(%)			Max.(%)			
C							0.08			
Si							1.00			
Mn							2.00			
P							0.035			
S							0.030			
Ni				7.50			10.50			
Cr				18.00			20.00			
Nb							0.15			
N				0.15			0.30			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta	
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other	

Stainless and heat resisting steels
Austenitic stainless steel bars

0Cr19Ni10NbN 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	-

0Cr19Ni10NbN 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	-

0Cr19Ni10NbN Heat Treatment Regime

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

0Cr19Ni10NbN 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

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