

This page is mainly introduced the 1Cr13 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 1Cr13, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 1Cr13

1Cr13 Standard Number:		
ITEM	Standard Number	Descriptions
1	GB 2270 (1980)	Seamless tubes
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 14975 (2002)	Stainless steel seamless tubes for structures
7	GB/T 3280 (2007)	Cold rolled stainless steel sheets and plates
8	GB/T 4226 (2004)	Cold finished stainless steel bars
9	GB/T 4237 (1992)	Hot rolled stainless steel sheets and plates
10	GB/T 4239 (1991)	Cold rolled stainless steel and heat resisting steel strips
11	GB/T 4240 (1993)	Stainless steel wires
12	GB/T 4356 (2002)	Stainless steel wire rods
13	GB/T 8732 (2004)	Steels of blade for steam turbine
14	JB/T 6398 (2006)	Heavy stainless acid resistant and heat resistant steel forgings

1Cr13 Chemical composition (mass fraction) (wt.%)									
Chemical		Min.(%)				Max.(%)			
C						0.15			
Si						1.00			
Mn						1.00			
P						0.035			
S						0.030			
Ni						0.60			
Cr		11.50				13.50			
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta

W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

1Cr13

1Cr13 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	-

1Cr13 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	-

1Cr13 Heat Treatment Regime

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

1Cr13 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: