

This page is mainly introduced the 2Cr11NiMoNbVN Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 2Cr11NiMoNbVN, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Specialsteel 2Cr11NiMoNbVN

2Cr11NiMoNbVN Standard Number:

ITEM	Standard Number	Descriptions
1	GB/T 8732 (2004)	Steels of blade for steam turbine

2Cr11NiMoNbVN Chemical composition(mass fraction)(wt.%)

Chemical		Min.(%)	Max.(%)						
C		0.1500	0.2000						
Mn		0.5000	0.8000						
P			0.0200						
S			0.0150						
Si			0.5000						
Ni		0.3000	0.6000						
Cr		10.0000	12.0000						
Mo		0.6000	0.9000						
Cu			0.1000						
V		0.2000	0.3000						
Al			0.0300						
N		0.0400	0.0900						
Nb		0.2000	0.6000						
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

2Cr11NiMoNbVN Steels of blade for steam turbine

2Cr11NiMoNbVN 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	-

2Cr11NiMoNbVN 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	-

2Cr11NiMoNbVN Heat Treatment Regime

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

2Cr11NiMoNbVN 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	Φ 8-1200mm*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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