

This page is mainly introduced the X22CrMoV12-1 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X22CrMoV12-1, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

Datasheet for Steel Grades Special Steel X22CrMoV12-1

X22CrMoV12-1 Standard Number:

ITEM	Standard Number	Descriptions
1	EN 10088-1 (2005)	Stainless steels - Part 1: List of stainless steels
2	EN 10269 (2013)	Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties
3	EN 10302 (2008)	Creep resisting steels, nickel and cobalt alloys

X22CrMoV12-1 Chemical composition (mass fraction) (wt.%)

Chemical		Min.(%)		Max.(%)					
C		0.18		0.24					
Si		0.18		0.24					
Mn		0.40		0.90					
P				0.025					
S				0.015					
Cr		11.0		12.5					
Ni		0.30		0.80					
Mo		0.80		1.20					
V		0.25		0.35					
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties

X22CrMoV12-1 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	-

X22CrMoV12-1 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	-

X22CrMoV12-1 Heat Treatment Regime

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

X22CrMoV12-1 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: