

This page is mainly introduced the 34CrNiMo6 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of 34CrNiMo6, 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 34CrNiMo6

34CrNiMo6 Standard Number:		
ITEM	Standard Number	Descriptions
1	NF EN 10083-1	Steels for quenching and tempering - Part 1: General technical delivery conditions
2	NF EN 10083-3	Steels for quenching and tempering - Part 3: Technical delivery conditions for alloy steels
3	NF EN 10250-3	Open die steel forgings for general engineering purposes - Part 3: Alloy special steels
4	NF EN 10263-4	Steel rod, bars and wire for cold heading and cold extrusion - Part 4: Technical delivery conditions for steels for quenching and tempering
5	NF EN 10269	Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties
6	NF EN 10277-5	Bright steel products - Technical delivery conditions - Part 5: Steels for quenching and tempering
7	NF EN 10343	Steels for quenching and tempering for construction purposes - Technical delivery conditions

34CrNiMo6 Chemical composition (mass fraction) (wt.%)									
Chemical		Min.(%)			Max.(%)				
C		0.30			0.38				
Si					0.40				
Mn		0.50			0.80				
P					0.035				
S					0.035				
Cr		1.30			1.70				
Ni		1.30			1.70				
Mo		0.15			0.30				
C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

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Steels for quenching and tempering for construction purposes - Technical delivery conditions

34CrNiMo6 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	-

34CrNiMo6 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	-

34CrNiMo6 Heat Treatment Regime

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

34CrNiMo6 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: