

**This page is mainly introduced the SB-446 N06650 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SB-446 N06650, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.**

## Datasheet for Steel Grades Specialsteel SB-446 N06650

### SB-446 N06650 Standard Number:

ITEM	Standard Number	Descriptions
1	SB-446	Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625), Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219), and Nickel-Chromium-Molybdenum-Tungsten Alloy (UNS N06650) Rod and Bar

### SB-446 N06650 Chemical composition (mass fraction) (wt.%)

Chemical	Min.(%)	Max.(%)
C		0.01
Si		0.05
Mn		1.50
P		0.04
S		0.01
Ni		remaining
Cr	0.50	1.50
Al	0.10	0.50
Cu		0.50
Ti		
Fe	1.00	6.00
Mo	26.00	30.00
Co		2.50

C	Si	Mn	P	S	Cr	Ni	Mo	V	Ta
W	N	Cu	Co	Pb	B	Nb	Al	Ti	Other

Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625), Nickel-Chromium-Molybdenum-

Silicon Alloy (UNS N06219), and Nickel-Chromium-Molybdenum-Tungsten Alloy (UNS N06650)

Rod and Bar

### SB-446 N06650 Physical Properties

Tensile strength	115-234	$\sigma_b$ /MPa
Yield Strength	23	$\sigma_{0.2} \geq$ /MPa
Elongation	65	$\delta_5 \geq$ (%)
$\psi$	-	$\psi \geq$ (%)
Akv	-	Akv $\geq$ /J
HBS	123-321	-
HRC	30	-

### SB-446 N06650 Mechanical Properties

Tensile strength	231-231	$\sigma_b$ /MPa

Yield Strength	154	$\sigma_{0.2} \geq / \text{MPa}$
Elongation	56	$\delta_5 \geq (\%)$
$\psi$	-	$\psi \geq (\%)$
Akv	-	$Akv \geq / \text{J}$
HBS	235-268	-
HRC	30	-

### SB-446 N06650 Heat Treatment Regime

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

### SB-446 N06650 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	$\Phi 8$ -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

**We can produce Specialsteel the specifications follows:**