Physical properties, Mechanical properties, Heat treatment, and Micro structure

This page is mainly introduced the X2CrMoTiS18-2 chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of X2CrMoTiS18-2, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## **Data Table for Grades Stainless Steels X2CrMoTiS18-2**

	X2CrMoTiS18-2 Standard Number:			
ITEM	Standard Number	Descriptions		
1	BS EN 10088-1	Stainless steels - Part 1: List of stainless steels		
2	BS EN 10088-3	Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes		
3	BS EN 10088-5	Stainless steels - Part 5: Technical delivery conditions for bars, rods, wire, sect and bright products of corrosion resisting steels for construction purposes		

X2CrMoTiS18-2 Chemical composition(mass fraction)(wt.%)				
Chemical	Min.(%)	Max.(%)		
С		0.03		
Si		1.00		
Mn		0.50		
Р		0.04		
S	0.15	0.35		
Cr	17.50	19.00		
Ni				
Мо	2.00	2.50		
Ti	0.30	0.80		
C+N		0.040		

X2CrMoTiS18-2 Physical Properties			
Tensile strength	115-234	σb/MPa	
Yield Strength	23	σ 0.2 ≥/MPa	
Elongation	65	δ5≥ (%)	
Ψ	-	ψ≥ (%)	
Akv	-	Akv≥/J	

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## X2CrMoTiS18-2 Chemical information, Mechanical properties

Physical properties, Mechanical properties, Heat treatment, and Micro structure

HBS	123-321	-
HRC	30	-

X2CrMoTiS18-2 Mechanical Properties			
Tensile strength	231-231	σb/MPa	
Yield Strength	154	σ 0.2 ≥/MPa	
Elongation	56	δ5≥(%)	
Ψ	-	ψ≥(%)	
Akv	-	Akv≥/J	
HBS	235-268	-	
HRC	30	-	

X2CrMoTiS18-2 Heat Treatment Regime				
Annealing	Quenching	Tempering	Normalizing	Q & T
V	√	√	√	√

X2CrMoTiS18-2 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 Stainless Steels the specifications follows:

Note:

- (1) listed in the table apex diameter (d), to steel thickness (a) multiples said.
- (2) in the ASTM A6 standard specified scope can meet any additional conditions.
- (3) from the standard for 50 mm (2 in).

Mechanical properties

Mechanische Eigenschaften

Caracteristiques mecaniques

ReH Minimum yield strength / Mindestwert der oberen Streckgrenze / Limite d'elasticite minimale

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## X2CrMoTiS18-2 Chemical information, Mechanical propertie

Physical properties, Mechanical properties, Heat treatment, and Micro structure

Rm Tensile strength / Zugfestigkeit / Resistance a la traction

A Minimum elongation / Mindestwert der Bruchdehnung / Allongement minimal

J Notch impact test / Kerbschlagbiegeversuch / Essai de flexion par choc

Round bar:

Diameter: 1mm-2000mm

Square bar:

Size: 50mm \* 50mm-600mm \*600mm

Plate steel/flat bar:

Size: Thickness: 0.1mm-800mm Width: 10mm to 1500mm

Tube/pipe:

Size: OD: 6-219mm WT: 1-35 mm.

Cold-rolled sheet: Thickness: 2-5mm Width:1000mm Length: 2000mm

Hot-rolled sheet: Thickness:6-80mm Width: 210-610mm

Length: We can supply any length based on the customer's requirement.

Forging/hot rolling/ extrusion of steel.

Forging: Shafts with flanks/pipes/tubes/slugs/donuts/cubes/other shapes

Finished goods condition: hot forging/hot rolling + annealing/normalizing + tempering/quenching + tempering/any

conditions based on the customer's requirement

Surface conditions: scaled (hot working finish)/ground/rough machining/fine machining/based on the customer's requirement

Furnaces for metallurgical processing: electrode arc + LF/VD/VOD/ESR/Vacuum consumable electrode.

Ultrasonic inspection: 100% ultrasonic inspection for any inperfections or based on the customer's requirement.

UTS according to SEP 1921 C/c,D/d,E/e;A388 or GB/T 6402

Excellent service for all kinds of industries, with advantages of technologies, equipment and price.

We serve you with our honesty, integrity, and professionality.

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