

ASTM A312 TP309HCB/S30941 Seamless Stainless Steel Pipe For High Temperature Pipe

Basic Information

Place of Origin: Wenzhou,China
Brand Name: Zheheng
Certification: ISO9001
Model Number: TP309Hcb
Minimum Order Quantity: MOQ500kg

• Packaging Details: In wooded cases or pallets, or as for clients

requirement

Delivery Time: 7-15 working days after receiving payment

Payment Terms: L/C, D/P, T/T, Western Union
 Supply Ability: 1000 Ton/Tons per Month



Product Specification

WT: SCH5-XXSSize: 1/8"-24"

• Surface Finish: Polishing, Hair Line, Pickling

Price Terms: FOB,CIF,CFR,EXW

Application: IndustryEnds: Plain/Bevelled

• Highlight: S30941 Seamless Stainless Steel Pipe,

TP309HCB Stainless Steel Pipe, ASTM A312 SS Seamless Pipe



Product Description

Characteristic

ASTM A312 TP 309HCB stainless steel pipes are austenitic chromium-nickel stainless steels that are often used for higher temperature applications. Grade 309HCB is the AISI designation for this material. 309HCB Stainless steel pipe are high-alloy steels which have higher corrosion resistance compared to other steels due to the presence of large amounts of chromium. SS 309HCB Pipe is a highly alloyed austenitic stainless steel used for its excellent oxidation resistance, high temperature strength and creep resistance. Stainless Steel 309HCB Seamless Pipes and SS 309HCB Welded Pipes used in different industries like oil & gas, Refineries, Fertilizers, Heat-Exchangers, Paper & Pulp, Pharmaceuticals, Chemicals, Water Treatment, Dairy, Sugar & Food Processing etc.

Chemical Composition

A312 GRADES	UNS	С	Mn	Р	S	Si	Cr	Ni	Мо	Ti	Nb	N
TP309HC	S30941	0.04- 0.10	2	0.045	0.03	17	I	12.0- 16.0	0.75		10xC min 1.10 max	

Mechanical Properties

Grade	Tensile Strength	Yield Strength	Elongation	Hardness		
	(MPa) min	0.2% Proof	(% in 50mm)	Rockwell B	Brinell (HB) max	
	(ινιι α) ιτιιιτ	(MPa) min	min	(HR B) max	Dillicii (IID) IIIax	
309HCB	515	205	40	95	217	

Physical Properties

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Density (lb./ in^2) @ RT		0.29
Modulus of Elasticity in Tension (psi x 10^6)		29
Specific Heat (BTU/o F/lb.)	32 to 212 oF	0.12
Thermal Conductivity (BTU/hr/ft^2/ft)	212oF	9
(610/11/11 2/11)	932oF	10.8
Mean Coefficient of	32 to 212oF	8.3
Thermal Expansion (in. x 10^-6 per o F)	32 to 600oF	9.3
x 10 -o per 01)	32 to 1,000oF	9.6
	32 to 1,200oF	10
Electrical Resistivity (micro ohms – cm)	at 70oF	39.8
Melting Point Range (oF)		2550 – 2650
Oxidation Resistance – Continuous Service(oF)		2000
Oxidation Resistance – Intermittent Service(oF)		1800

To improve the corrosion resistance of steel, the following measures can be taken:

- (1) to form a stable passivation film on the surface of the steel. Passivation is due to the action of metal and medium to produce a thin protective film, the existence of the protective film hinders the anode process, thus improving the chemical stability of the metal. After chromium is contained in the steel, chromium is also contained in the passivation film. The higher the chromium content in the steel, the higher the chromium content in the TP309cb stainless steel tube film, which will increase the stability of the film, and its thickness is above 1nm. Therefore, the corrosion resistance of stainless steel is mainly caused by a chromium-rich oxide film with a thickness of about 1nm or more. The type of medium and other elements in the steel will affect the stability of the passivation film.
- (2) The steel obtains a single solid solution structure. For example, 18Cr-8Ni austenitic stainless steel has high corrosion resistance only after solution treatment to obtain a single uniform austenitic structure
- (3) Increase the electrode potential of the solid solution. The corrosion resistance of the metal is closely related to the type, concentration, temperature, pressure and other conditions of the medium, and the oxidation capacity of the medium has the greatest impact.

Image





Wenzhou Zheheng Steel Industry Co.,Ltd







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