

AISI 631/1.4568 8 Inch SS Round Pipe UNS S17700 Heat Resistant

Basic Information

Place of Origin: Wenzhou, China

Brand Name: Zheheng
Certification: ISO9001
Model Number: AISI 631
Minimum Order Quantity: MOQ500kg

Packaging Details: Seaworthy Standard Package

• Delivery Time: 7-15 working days after receiving payment

Payment Terms: L/C, D/P, T/T, Western Union
 Supply Ability: 5000 Ton/Tons per Month



Product Specification

• NPS: 1/8"-24"

• Grade: 631 Stainless Steel

• Wall Thickness: SCH10S,SCH40, SCH XS, SCH

60,SCH80S,SCH12020,SCH1160,SCH

• Delivery Time: 15-21 Days

Application: Valves And Gears, Engine Components, High

Strength And Boat Propeller Shafts, Plastic

Moulding Dies

• Section Shape: Round

• Finished: Annealing Pickling, Bright Annealing

Price Term: FOB CIF CFR EXW Etc.

Highlight: AISI 631 Stainless Steel Seamless Pip,

8 inch SS round pipe,

Heat Resistant Stainless Steel Seamless Pipe



Product Description

Overview

631 stainless steel, also known as 17-7 PH stainless steel, is a versatile corrosion-resistant alloy with a unique chemical composition. The main components are iron, chromium and nickel, but also contain small amounts of aluminum and copper. 631 stainless steel is unique in its unique precipitation hardening ability achieved through heat treatment. This stainless steel alloy is widely used in various industries, including aerospace, automotive and medical. Its superior strength combined with good formability makes it suitable for the manufacture of complex components such as springs, washers and high-strength structural parts. In addition, its corrosion resistance and biocompatibility make it an excellent choice for surgical instruments, orthodontic devices, and implantable medical devices. With its combination of mechanical properties and resistance to environmental factors, 631 stainless steel remains a popular material in a variety of demanding applications.

Chemical composition

| С | Mn | Si | Р | S | Cr | Ni | Al |
|------|----|-----|-------|-------|---------------|-------------|-------------|
| 0.09 | 1 | 0.5 | 0.025 | 0.025 | 16.00 – 17.25 | 6.50 - 7.75 | 0.75 – 1.25 |

Mechanical Properties

| | AISI 63 | |
|------------------------------|-------------------|--|
| Ultimate Tensile Strength | 1170Mpa,170000psi | |
| Yield Strength | 965Mpa,140000ps | |
| Elongation % | 6 min | |

Physical properties

Tensile strength σb (MPa) : solid solution,≤1030; Aging at 565°C,≥1140; Aging at 510°C ≥1230

Conditional yield strength σ0.2 (MPa): solid solution,≤380; Aging at 565°C,≥960; Aging at 510°C ≥1030

Elongation δ5 (%): solid solution,≥20; Aging at 565°C,≥5; Aging at 510°C ≥4

Section shrinkage ratio ψ (%): 565°C aging,≥25; Aging at 510°C,≥10

Hardness: solid solution,≤229HB; Aging at 565°C,≥363HB; Aging at 510°C,≥388HB

Heat treatment

1.Solid solution,1000 ~ 1100°C fast cooling;

2. Aged at 565°C, after solution treatment, 760±15°C for 90min, cooled to below 15°C within 1h, kept for 30min, then heated to 565±10°C for 90min, air cooling;

3. 510°C aging, after solid solution treatment,955±10°C for 10min, air cooling to room temperature within 24h cooling to -73±6°C, maintained for 8h, then heated to 510±10°C for 60min, air cooling.

Corrosion Resistance

The 631 stainless steel is highly corrosion-resistant in seawater, acids, and alkalis environments. It offers better corrosion resistance than 304 and 316 stainless steel due to its higher chromium content. However, the alloy is susceptible to pitting and crevice corrosion in chloride-containing solutions.

Why choose us

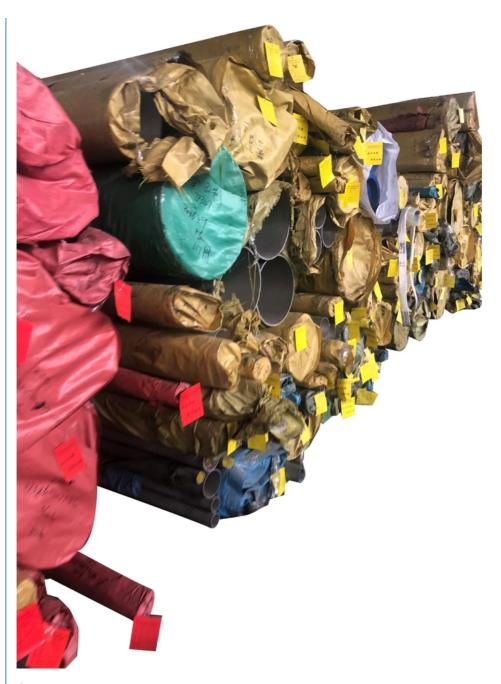
1.Size control

2. Chemical composition control

4.ultrasonic testing of steel tube

3.hydraulic testing machine

Package detail



Shipping

















- 1.Packing type:Carton and wooden case,also be packged according to customer requirements.
- 2.Modes of transportation:by sea,by air or land transportaion,of course,a small amount can also by Express.



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