



ZHEHENG STEEL

Wenzhou Zheheng Steel Industry Co.,Ltd
stainless-steelseamlesspipe.com

Popular Martensitic SS Pipe Stainless Steel Grades AISI 420/UNS 42000

Our Product Introduction

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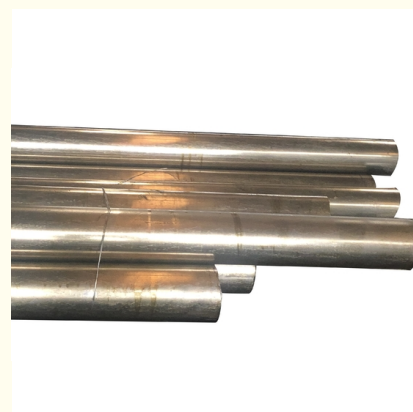
Basic Information

- Place of Origin: Wenzhou, China
- Brand Name: Zheheng
- Certification: ISO9001
- Model Number: 420
- Minimum Order Quantity: MOQ500kg
- Packaging Details: In wooded cases or pallets, or as per 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

- Port: Ningbo
- OD: $\Phi 6-630\text{mm}$
- Section Shape: Round
- Package: Seaworthy Standard Package
- Price Terms: FOB, CIF, CFR, EXW
- Length: 1-12m
- Technique: Hot Rolled/Cold Rolled
- Wall Thickness: 1-40mm
- Grade: 400 Series
- Highlight: **UNS 42000 Stainless Steel Tubing, Martensitic SS pipe, AISI 420 Stainless Steel pipe**



Product Description

Overview

420 stainless steel is a martensitic stainless steel that is recognized for its unique combination of strength, corrosion resistance, and impressive wear resistance. This stainless steel composition is designed to deliver its key properties at an affordable price: a relatively high carbon level (0.15 to 0.4%) provides hardness and strength, while the 12% chromium provides sufficient corrosion resistance for environments. Manganese enhances strength and hardenability, while silicon aids in deoxidization and enhances strength. Phosphorus and sulfur may be present but are trace impurities. 420 stainless steel finds application in areas that require high strength, moderate corrosion resistance, and good hardness. It is commonly used in the manufacture of knives, surgical instruments, scissors, blades, and various cutting tools. While it offers good corrosion resistance in mild environments, it may not be suitable for highly corrosive or extreme conditions.

What Are the Advantages of Using 420 Stainless Steel?

It has high strength and hardness, making it suitable for applications that require robust and durable materials. It is known for its excellent wear resistance. It can withstand abrasion, friction, and contact with hard materials without significant loss of surface integrity. It can be hardened through heat treatment. This allows for the adjustment of its hardness, strength, and toughness according to specific application requirements. Compared to some other stainless steel grades, 420 stainless steel is relatively more cost-effective. It provides a balance between desirable mechanical properties and affordability. It is an attractive option for applications that require strength and wear resistance without the higher costs associated with certain specialty stainless steel. Such as:

1. Shear Blades
2. Cutlery
3. Surgical Equipment
4. Bearings
5. Needle Valves
6. Bushings
7. Knife Blades
8. Screens
9. Fasteners
10. Pump Shafts
11. Ladder Rungs
12. Valve Components
13. Steam/Gas Applications
14. Turbines
15. Hand tools

What Are the Disadvantages of Using 420 Stainless Steel?

It may be susceptible to corrosion in highly corrosive environments, such as those containing acids or chlorides. It can be susceptible to staining and surface discoloration when exposed to certain chemicals or environments. It requires careful control of the welding parameters and the use of suitable filler materials to minimize the risk of cracking and maintain the desired properties. It has limited heat resistance compared to some other stainless steel grades. It may experience dimensional changes, loss of strength, or even deformation when exposed to high temperatures. It is not recommended for applications involving prolonged exposure to elevated temperatures (temperatures above 500-550°C).

420 Stainless Pipe Chemical Composition

Grade	C	Mn	Si	P	S	Cr	Mo	Ni
SS 420	0.15 max	1.00 max	1.000 max	0.040 max	0.030 max	12.00 – 14.00	0.50 max	0.75 max

Physical Properties

Melting Point: 2649 - 2750°F (1454 – 1510°C)

Density: 0.2790 lbs/in³ / 7.73 g/cm³

Modulus of Elasticity in Tension: 29 X 10⁶ psi / 200 GPa

Mechanical Properties Stainless Steel 420

Tensile Strength	Yield Strength (0.2%Offset)	Reduction in Area	Elongation	Hardness
Psi – 85,000	Psi – 45,000	50%	55%	Rb 180

Package Process

1. with plastic cap to protect both ends
2. weaving bag wrapped outside the pipe
3. then pack into wooden case.

Image



Company introduction

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