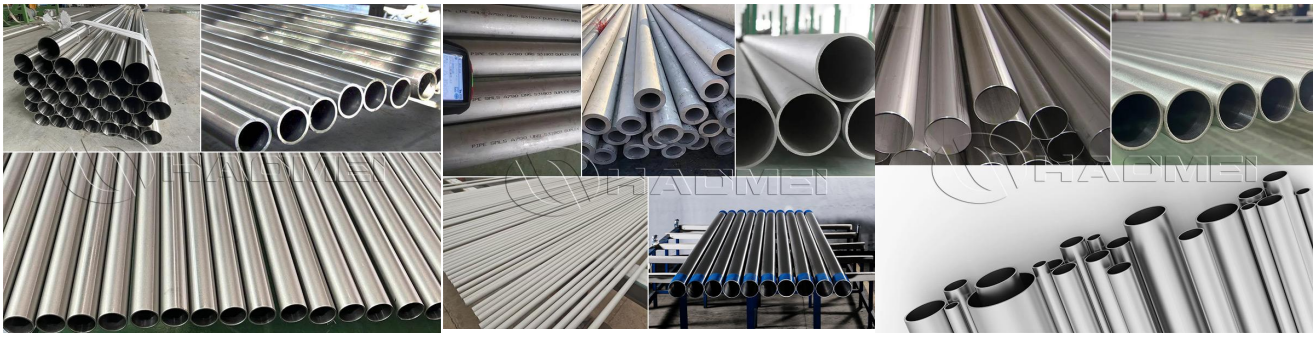
Super Duplex Seamless Pipe

Super duplex stainless steel seamless pipe is designed for demanding service conditions where high strength and superior corrosion resistance are required. Compared with standard austenitic stainless steels, super duplex seamless pipe offers better resistance to pitting, crevice corrosion, and chloride stress corrosion cracking, making it an ideal choice for marine, offshore, oil and gas, desalination, and chemical processing applications.

Manufactured without a welded seam, this product is suitable for high-pressure and critical service systems where reliability, dimensional accuracy, and material integrity are essential.

Specifications of Super Duplex Stainless Steel Seamless Pipe:

Product Name	Super Duplex Stainless Steel Seamless Pipe
Material Grades	UNS S32750 / UNS S32760
Manufacturing Type	Seamless
Standards	ASTM A790, ASTM A789, EN standards available upon request
Size Range	According to customer requirement
Outer Diameter	6 mm – 610 mm
Wall Thickness	1 mm – 40 mm
Length	up to 12 m
End Type	Plain end / Beveled end
Surface Finish	Annealed and pickled
Inspection Documents	EN 10204 3.1 / other documents upon request



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Grades of Super Duplex Seamless Pipe:

UNS S32750 and UNS S32760 (if available)

The most common commercial grade is Super Duplex 2507 (UNS S32750), which combines high mechanical strength with excellent corrosion resistance in chloride-containing environments.

Super Duplex stainless steel is characterized by a balanced microstructure of austenite and ferrite, providing both high strength and excellent corrosion resistance.

Typical properties include:

High yield strength

Excellent chloride corrosion resistance

Good toughness

Improved resistance to stress corrosion cracking

Chemical Composition of of super duplex stainless steel 2507:

Element	Content (%)
Carbon (C)	Max 0.030
Chromium (Cr)	24.0 – 26.0
Nickel (Ni)	6.0 – 8.0
Molybdenum (Mo)	3.0 – 5.0
Nitrogen (N)	0.24 – 0.32
Manganese (Mn)	Max 1.20
Silicon (Si)	Max 0.80
Phosphorus (P)	Max 0.035
Sulfur (S)	Max 0.020

Element	Content (%)
Copper (Cu)	Max 0.50

Mechanical Properties

Property	Value
Tensile Strength	≥ 800 MPa
Yield Strength (0.2% Offset)	≥ 550 MPa
Elongation	≥ 15%
Hardness	Max 310 HB
Impact Toughness	Available upon request / according to standard

Standards of Super Duplex Stainless Steel Seamless Pipe:

Common standards for Super Duplex Stainless Steel Seamless Pipe include:

ASTM A790 – Seamless and welded ferritic/austenitic stainless steel pipe

ASTM A789 – Seamless and welded ferritic/austenitic stainless steel tubing

EN 10216-5 – Seamless steel tubes for pressure purposes

Available standards may vary depending on size, grade, and project specification.

Features & Benefits of Super Duplex Stainless Steel Seamless Pipe:

Excellent resistance to pitting and crevice corrosion

High resistance to chloride stress corrosion cracking

Higher strength than 304, 316L, and duplex 2205

Suitable for seawater, offshore, and aggressive chemical environments

Good performance in high-pressure systems

Long service life with reduced maintenance cost

Seamless construction for critical applications

Applications of Super Duplex Stainless Steel Seamless Pipe:

Super Duplex Stainless Steel Seamless Pipe is widely used in:

Marine piping systems

Seawater handling systems

Offshore platforms

Oil and gas transmission

Heat exchangers

Desalination plants

Chemical processing plants

Pressure piping systems

Fire water and cooling water systems

Corrosion-sensitive industrial applications

Super duplex seamless pipe is often selected when standard stainless steel grades such as 316L are not sufficient for chloride-rich or highly corrosive conditions. Its high strength allows for thinner wall design in some applications, while its superior corrosion resistance helps improve service life and reduce maintenance costs.

For marine and offshore industries, super duplex pipe is a reliable solution for systems exposed to seawater, salt spray, and aggressive service media.

Quality Control & Certificates of Super Duplex Stainless Steel Seamless Pipe:

To ensure reliable performance, Super Duplex Stainless Steel Seamless Pipe can be supplied with strict quality control and inspection procedures, including:

Raw material verification

Chemical composition analysis

Mechanical property testing

PMI (Positive Material Identification)

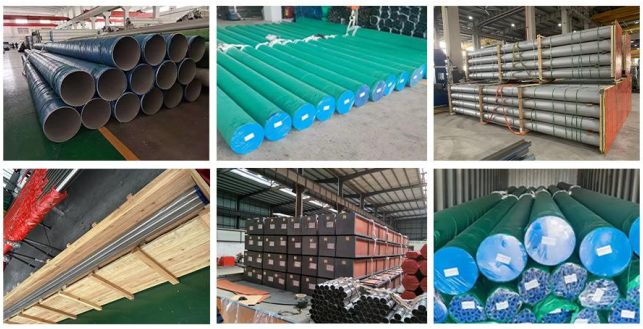
Hydrostatic test

Dimensional inspection

Surface inspection

Non-destructive testing upon request

Packaging of Super Duplex Stainless Steel Seamless Pipe:



The pipes are packed to ensure protection during storage and export transportation.

Common packing methods include:

Bundles with protective wrapping

Wooden cases or wooden boxes

End caps for pipe protection

Marking according to customer requirements

FAQ:

Q: What is Super Duplex Stainless Steel Seamless Pipe?

Answer: Super duplex stainless steel seamless pipe is a high-strength, corrosion-resistant stainless steel pipe made without a welded seam. It is commonly used in marine, offshore, and seawater applications.

Q: Is Super Duplex Pipe suitable for seawater service?

Answer: Yes. Super duplex pipe offers excellent resistance to pitting, crevice corrosion, and chloride stress corrosion cracking, making it suitable for seawater systems.

Q: What is the difference between 2205 and 2507?

Answer: 2205 is a duplex stainless steel grade for general corrosion-resistant service, while 2507 is a super duplex grade with higher strength and better corrosion resistance in aggressive chloride environments.

Q: What standards are available?

Answer: Common standards include ASTM A790, ASTM A928, ASTM A999, and EN 10216-5, depending on project and application requirements

Q: What certificates can be provided?

Answer: Typical certificates include MTC, EN 10204 3.1 / 3.2, PMI reports, chemical and mechanical test reports, hydro test reports, and third-party inspection documents.

Q: How do I get a quick quote?

Answer: Please provide the material grade, standard, outside diameter, wall thickness, length, quantity, application, certificate requirements, and destination port.

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