Super Duplex S32750 Steel Pipe, Super Duplex 2507 Pipe, Duplex 2507 Pipe, 2507 Stainless Steel Pipe, ASTM A790 UNS S32750 Pipe, ASME SA790 UNS S32750 Pipe, Super Duplex F53 Pipe, Super Duplex 1.4410 Pipe, UNS S32750 Seamless Pipes, UNS S32750 Welded Pipes, SS 2507 ERW Pipes, Super Duplex S32750 Round Pipe, Duplex 2507 SCH 10 Pipe, Duplex 2507 SCH 40 Pipe, Super Duplex 2507 Pipe Price, Super Duplex S32750 Pipe Suppliers

2507 pipe belongs to ferritic austenitic duplex stainless steel pipe, which is called super duplex S32750 steel pipe, which not only has the advantages of ferritic stainless steel, but also combines the performance characteristics of austenitic stainless steel. ASTM A790 UNS S32750 pipe is composed of various metal elements such as chromium, nickel, molybdenum and copper, and has excellent resistance to pitting corrosion, crevice corrosion and uniform corrosion. The strength of duplex 2507 pipe is about two times higher than that of ordinary stainless steel, and it has good toughness and plasticity. Super duplex S32750 round pipe is mainly used in chemical processing, petrochemical and subsea equipment.

ASTM A790 UNS S32750 pipe standard：

- ASTM A790: Standard Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Pipe
- ASTM A789: Standard Specification for Seamless and Welded Ferritic/Austenitic Stainless Steel Tubing for General Service
- ASME B36.19：Specication for stainless steel pipes

Super Duplex S32750 Steel Pipe Specifications

Specifications	ASTM A 790 ASME SA 790
Standards	ASTM, ASME, and API
Outer Diameter	1/2″ - 36″ (13.7 mm - 914.4 mm）
Wall Thickness	2 mm - 50 mm
Schedule	SCH 5, SCH10, SCH 40, SCH 80, SCH 80S, SCH 160, SCH XXS, SCH XS
Type	Seamless / ERW / Welded / Fabricated
Form	Round Pipes, Custom Pipes, Square Pipes, Rectangular Pipe, “U” Shape, Hydraulic Pipes
Length	Single Random, Double Random , Cut Length.
End	Plain End, Beveled End, Treaded

Super Duplex 2507 Pipe Equivalent Grades

STANDARD	WERKSTOFF NR.	UNS	EN
Super Duplex S32750	1.4410	S32750	X 2 CrNiMoN 25-7-4

2507 Stainless Steel Pipe Mechanical Properties

Grade	S32750
C	0.03max
Mn	1.20max
P	0.035max
S	0.02max
Si	0.80max
Ni	6.0-8.0
Cr	24.0-26.0
Mo	3.0-5.0
N	0.24-0.32
Cu	0.5

Super Duplex 1.4410 Pipe Mechanical Properties

Mechanical properties	S32750
Tensile, min, ksi[MPa]	116 [800]
Yield, min, ksi[MPa]	80 [550]
Elongation, %(min)	15
Hardness, HB（max）	300

Super Duplex S32750 Steel Pipe Features

1. Acid corrosion resistance

The higher chromium and molybdenum content of ASME SA790 UNS S32750 pipe makes it more resistant to the overall corrosion of organic acids such as formic acid and acetic acid. 2507 material is also very resistant to inorganic acids, especially those containing chlorides. 316L cannot be used in hydrochloric acid environment, and local corrosion or overall corrosion may occur, while duplex 2507 pipe can be used in dilute hydrochloric acid environment, and has strong damage resistance and crevice corrosion resistance. Duplex 2507 pipe has greater corrosion resistance to dilute chloride mixed sulfuric acid than 904L, an austenitic alloy designed to resist pure sulfuric acid corrosion.

2. Resistant to stress corrosion cracking

The duplex structure of 2507 makes it highly resistant to stress corrosion cracking, and due to the high alloy content, super duplex F53 pipe has better corrosion resistance and strength than 2205.

3. Resistance to intergranular corrosion

The lower carbon content of super duplex 1.4410 pipe greatly reduces the risk of carbide precipitation in the intergranular during heat treatment, so 2507 alloy has a strong resistance to carbide-related intergranular corrosion.

4. Mechanical properties

2507 stainless steel pipe has high compressive strength, impact strength, low thermal expansion coefficient and high thermal conductivity. Duplex 2507 SCH 10 pipe is composed of a variety of alloy elements, its high strength is one of the biggest advantages of this steel pipe, it has high hardness, can withstand very large pressure, and is also very wear-resistant so that it can prolong the service life.

Application of ASTM A790 UNS S32750 Pipe

Super duplex S32750 steel pipe has higher corrosion resistance and better mechanical properties than **duplex stainless steel pipe** 2205. Often used in offshore oil platforms (heat exchanger tubes, water treatment and water supply systems, fire protection systems, water spray systems, water stabilization systems), desalination equipment and other special chemical environmental equipment. Applications include: oil and gas industry equipment. Offshore platforms, heat exchangers, underwater equipment, fire fighting equipment. Chemical processing industry, vessel and plumbing industry. Desalination plants, submarine pipelines. Mechanical components (high-strength, corrosion-resistant components), energy industry FGD systems, industrial scrubbing systems, absorption towers, etc.

Processing Technology of Super Duplex S32750 Steel Pipe

Super duplex S32750 stainless steel pipe includes UNS S32750 seamless pipes and UNS S32750 welded pipes, and the processing technology of Duplex 2507 SCH 40 pipe includes hot rolling, cold drawing, cold drawing processing, welding, etc. Among them, hot rolling is to heat the billet to a certain temperature and then extrude it, which is often used to produce large-diameter steel pipes. Cold drawing is to draw the hot-rolled steel pipe after cold treatment to improve the precision and smoothness of the steel pipe. Cold drawing processing is the processing and cutting of steel pipes on the basis of cold drawing to obtain the required length and size. Welding is to join multiple steel pipes through welding technology to form a longer piping system.

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