UNS S32750 Super Duplex Stainless Steel

1.Stainless Steel Plate

Type 304 | Type 304L | Type 304H | Type 316 | Type 316L | Type 316H | Type 321 | Type 347

Type 410 | UNS S32205 Duplex | UNS S32750 Super Duplex | UNS S32760 Super Duplex

2.With higher levels of chromium and molybdenum, 2507 super duplex has even greater tensile and yield strength. Super Duplex stainless like Duplex, is a mixed microstructure of austenite and ferrite (50/50) which has improved strength over ferrite and austenitic steel grades. The main difference is that Super duplex has a higher Molybdenum and Chromium content which gives the material greater corrosion resistance.

3.SuperDuplex has the same benefits as its counterpart – it has lower production costs when compared with similar ferrite and austenitic grades and due to the materials increased tensile and yield strength, in many cases this gives the purchaser the welcomed option of purchasing smaller thicknesses without the need to compromise on quality and performance.

4.Benefits of UNS32750 Super Duplex Stainless Steel

Improved corrosion resistance in comparison to Duplex

Greater tensile and yield strength

Good ductility and toughness

Good stress corrosion cracking resistance (SSC)

Opportunity for purchases to reduce their material costs without compromising on quality

5.Applications

Super Duplex is used in the oil and gas industry, on offshore platforms, in heat exchangers, chemical processing equipment pressure vessels and boilers.

6.About UNS32750

2507 is the most common Super Duplex alloy which contains 24% chromium and a minimum of 3% molybdenum. Please refer to the chemical composition and mechanic properties tables below. For information on Duplex alloy please click here.

7.Chemical Composition

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| UNS No | Grade | C | Si | Mn | P | S | Cr | Mo | Ni | N | Other |
| S32750 | 2507 | 0.030 | 0.80 | 1.20 | 0.035 | 0.020 | 24.0/26.0 | 3.0/5.0 | 6.00/8.00 | 0.24/0.32 | Cu:0.50 |

8.Mechanical Properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| UNS No | Grade | Proof Stress 0.2% (MPa) | Tensile Strength (MPa) | Elongation A5(%) | Hardness Max | |
| HB | HRB |
| S32750 | 2507 | 550 | 795 | 15 | 310 | 32\* |

9.Talk about our range of Duplex and Super Duplex stainless alloys, please contact us.