UNS S32760 Super Duplex Stainless Steel

1. UNITEDSTEEL holds stock of Super Duplex stainless steel plate specifications UNS S32750 (1.4410) and UNS S32760 (1.4501).

2. A Super Duplex stainless steel is a type of Duplex stainless steel with enhanced corrosion resistance which is categorized by its PREN being greater than 40. A standard Duplex like the S31803 grade stocked has a PREN of around 35. The Pitting Resistance Equivalent Number (PREN) is widely used as a means of comparing the relative corrosion resistance of different steel grades. The PREN is obtained by applying a mathematical formula to the chemical composition of a steel so that PREN= %Cr + (3.3 x %Mo) + (16 x %N).

3. As a part of the Duplex family of stainless steels Super Duplex stainless has a microstructure which is split roughly 50:50 between austenite and ferrite. It differs from Duplex in its chemical composition (with increased amounts of Molybdenum, Nickel, and Chromium) and its mechanical properties (higher proof stress and tensile strength). This highly alloyed product is especially designed for marine, chemical, and oil engineering applications requiring both high mechanical strength and resistance to corrosion in extremely aggressive environments (chloride-containing acids etc.).

4. Super Duplex stainless steel, relative to other stainless steel products, gives

High corrosion resistance

High resistance to stress corrosion cracking

High yield strength and tensile strength

5. It is used extensively for offshore oil and gas applications and can be found in flow lines, risers, process vessels, separators, coolers, manifolds, and process piping. Onshore it can be found in heat exchangers, boilers, and pressure vessels in petrochemical and chemical processing plant.

6. If you have any other requirement for steel plate, please feel free to contact us.