

# UNS S31803/2205

Performing well in aggressive environments, UNS S31803/2205 is a cost-effective duplex stainless steel.

Displaying effective resistance to stress corrosion cracking, corrosion resistance under warm seawater conditions and excellent pitting resistance, UNS S31803/2205 is used for a wide range of applications.

## PRODUCT FORMS

PRODUCT FORM	SIZE RANGE FROM	SIZE RANGE TO
UNS S31803/2205 sheet & plate	1.5 mm	50 mm

Can't find the size you need? **Please contact us at [onlinesales@neonickel.com](mailto:onlinesales@neonickel.com)**

## CHEMICAL ANALYSIS

%	CR	FE	MO	N	NI	P	S	SI
Min	22	Balance	3	0.14	4.50	-	-	0.20
Max	23	-	3.50	0.20	5.50	0.030	0.020	0.70

## APPLICATIONS

- Seawater systems
- Seawater pumps and valves
- Chemical process vessels, piping, and heat exchangers
- FGD scrubber systems
- Pulp mill digesters, bleach washers
- Food process equipment
- Oil field piping

## **ABOUT UNS S31803/2205**

UNS S31803/2205 is a duplex grade with a ferritic-austenitic microstructure. The alloy consists of around 40-50% ferrite in the annealed condition. The duplex microstructure has the high strength of the ferritic grades whilst retaining the corrosion resistance of the austenitic grades. It is not uncommon to see the metal used as a practical solution to chloride-induced stress cracking, which is the achilles' heel of stainless steel. It has superior resistance to chloride pitting and crevice corrosion as compared to 317L stainless steel. The alloy has outstanding corrosion resistance to seawater and most concentrations of sulphuric acid. In addition, it is also resistant to sulphide stress corrosion cracking (sour-gas environments). The high quality and therefore performance of UNS S32205 is widely attributed to the high levels of chromium present as well as nitrogen and molybdenum. To buy UNS S31803/2205 or for more information feel free to [contact](#) our team of experts.