

Duplex 2205

(UNS S31803/S32205)

Availability:

Seamless Pipe: 1/2" - 8"
Weld Pipe: 1/2" - 12"
Butt-Weld Fittings: 1/2" - 12"
Flanges: 1/2" - 12"
Bar: 1" - 8"

Specifications:

ASTM B790, B815, B182,
ASME SB790, SB815, SB182,

Description:

Avesta Sheffield 2205 is a ferritic-austenitic stainless steel which combines many of the beneficial properties of both ferritic and austenitic steels. As a result of high chromium and molybdenum contents, the steel has very good pitting and uniform corrosion resistance, as well as high mechanical strength. 2205 has good weldability and can be welded using most of the techniques for stainless steels. Due to the balanced composition, when welded correctly, the heat-affected zone contains sufficient austenite to avoid risk of localized corrosion.

Typical Applications:

- Heat exchangers, tube & pipe for gas & oil
- Heat exchangers and pipes in desalination plants
- Pressure vessels, pipes, & tanks for various chemicals and chlorides
- Rotors, fans, shafts and press rolls where high corrosion fatigue is needed

Tensile Requirements:

Tensile Strength Yield Strength
(KSI) = 95 (KSI) = 65

KSI can be converted to MPA (Megapascals) by multiplying by 6.895.

Chemical Composition %

C	Cb	Fe	Mn	MO	N	Ni	P	S	SI
MAX			MAX				MAX	MAX	MAX
0.030	22.0 -23.0	BAL	2.0	3.00 - 3.50	0.14 - 0.20	4.50 - 6.50	0.030	0.020	1.0