

# DUPLEX 2205

UNS S31803  
X2CrNiMoN 32 5 3  
1.4462



Austenitic-ferritic also referred to as duplex stainless steels, combine many of the beneficial properties of ferritic and austenitic steels. Due to their high content of chromium, nitrogen and molybdenum, these steels offer good resistance to local and uniform corrosion. The duplex microstructure contributes to their high strength and high resistance to stress corrosion cracking. Duplex steels also have good weldability.

## FEATURES

- High strength
- Good to very good resistance to pitting and crevice corrosion.
- High resistance to stress corrosion cracking and corrosion fatigue.
- Good to very good resistance to uniform corrosion.
- Good erosion resistance.
- High energy absorption.
- Low thermal expansion.
- Good weldability.

## APPLICATIONS

- Heat exchangers
- Weater heaters
- Pressure vessels
- Large storage tanks.
- Rotors, impellers and shafts.
- Components for structural design.
- Firewalls an blast walls on offshore platforms.
- Digesters and other equipment in the pulp and paper industry.
- Cargo tanks and pipe systems, in chemical tankers.
- Desalination plantas.
- Fuel-gas cleaning.
- Seawater systems.

## TECHNICAL INFORMATION

### Chemistry

El. Químico		% Máx.
C	C Carbon	0,030
Mn	Manganese	2,00
P	Phosphorus	0,030
S	Sulphur	0,020
Si	Silicium	1,000
Ni	Níckel	4,6-6,5
Cr	Chromium	21,0-23,0
Mo	Molibdenum	2,5-3,5
N	Nitrogen	0,08-0,20

### Mechanical properties according standards

Norm ASTM	Rm min.	Rp 0,2% min.	E4d min.%	Z min.%	T.I.(J)	HR B	HB
A-182	90 (620)	65 (450)	25	45			
A-240	90 (620)	65 (450)	25			31	293
A-276	90 (620)	65 (448)	25				290
A-789	90 (620)	65 (450)	25				290
A-790	90 (620)	65 (450)	25				290
A-815	90 (620)	65 (450)	25				290

## PRODUCTS



ROUND BAR  
Diam. 10 to 400 mm  
ASTM A-240



DIN / ASA FLANGES  
1/2" to 24" 150lbs - 3000lbs  
ASTM A-182



SEAMLESS PIPES  
1/2" to 8" SCH10 to SCH80S  
ASTM A-789/790



PLATE / FLAT PRODUCTS  
Esp. 0.5 to 40 mm  
ASTM A-240



WELDED PIPES  
Diam. 10 to 400 mm  
ASTM A-240



PIPE FITTINGS BW, SW,  
HIGH PRESSURE...  
D8" to 24" SCH10 to SCH80S  
ASTM A-815

