

254SMO / 6Mo

UNS S31254
X1CrNiMoCuN 20 18 7
1.4547



Alloy 254 SMO® is an austenitic stainless steel with a high molybdenum content. Coupled with Nickel and Copper this gives the alloy a good resistance to pitting and crevice corrosion, especially in environments containing halide ions, e.g. chloride, bromide and fluoride solutions.

254 SMO® (UNS S31254) may offer a cost effective solution to Nickel and Titanium alloys in these environments.

FEATURES

- High resistance to pitting and crevice corrosion
- Very high resistance to chloride stress corrosion cracking
- 50% stronger than 300-series austenitic stainless steels
- Excellent impact toughness
- Excellent workability and weldability

APPLICATIONS

- Seawater Handling Equipment
- Pulp Mill Bleach Systems
- Tall Oil Distillation Columns and Equipment
- Chemical Processing Equipment
- Food Processing Equipment
- Desalination Equipment
- Fuel Gas Desulfurization Scrubbers
- Oil and Gas Production Equipment

TECHNICAL INFORMATION Chemistry

Chemical Element		% Máx.
C	C Carbon	0.020
Mn	Manganese	1.00
P	Phosphorus	0.030
S	Sulphur	0.015
Si	Silicon	0.80
Ni	Níckel	17.5-18.5
Cr	Chromium	19.5-20.5
Mo	Molibdenum	6.0-6.5
N	Nitrogen	0.18-0.22
Cu	Copper	0.50-1.00

Mechanical properties according standards

Norm ASTM	Rm min.	Rp 0,2% min.	E4d min. %	Z min.%	T.I.(J)	HR B	HB
A-182	94 (650)	44 (300)	35	50		35	
A-240	95-100 (655-690)	45 (310)	35			96	223
A-249	95-98 (655-675)	45 (310)	35			100	
A-312	95-98 (655-675)	45 (310)					
A-403	94-119 (650-820)	44 (300)					
A-409	94 (650)	44 (300)					
A-473	94 (650)	44 (300)	35	50			
A-479	95 (655)	44 (305)	35	50			

PRODUCTS



ROUND BAR
Diam. 10 to 400 mm
ASTM B-649



DIN / ASA FLANGES
1/2" to 24" 150lbs - 3000lbs
ASTM A-182 B-649



SEAMLESS PIPE
1/2" to 8" SCH10 to SCH80S
ASTM A-269 B-677



PLATE / FLAT PRODUCT
Thickness 0.5 to 40 mm
ASTM B-625



WELDED PIPE
Diam. 10 to 400 mm
ASTM A-269 B-677



BW, SW, High pressure
FITTINGS
8" to 24" SCH10 to SCH80S
ASTM B-366

