

Stainless Steel

S20910 (XM-19) Bar & Sheet

Datasheet Updated
05 August 2021

RANGE

Product Form	Size Range
Round Bar Peeled K12	35mm - 70mm

SPECIFICATIONS

Commercial	XM-19
US	S20910

A highly alloyed austenitic stainless steel with good mechanical strength and high corrosion resistance.

CHEMICAL COMPOSITION

Element	% Present
Carbon (C)	0.00 - 0.03
Chromium (Cr)	20.50 - 23.50
Nickel (Ni)	11.50 - 13.50
Manganese (Mn)	4.00 - 6.00
Phosphorous (P)	0.00 - 0.04
Sulphur (S)	0.00 - 0.01
Silicon (Si)	0.20 - 0.60
Molybdenum (Mo)	1.50 - 3.00
Nitrogen (N)	0.20 - 0.40
Vanadium (V)	0.10 - 0.30
Niobium (Columbium) (Nb)	0.10 - 0.30
Iron (Fe)	Balance

ALLOY DESIGNATIONS

- XM-19
- XM19
- UNS S20910
- Notronic 50
- 1.3964
- ASTM A479/A182

SUPPLIED FORMS

- Bar
- Sheet
- Plate

APPLICATIONS

- Oil & gas industry downhole equipment
- Marine pumps, valves, masts, tie downs, fixtures and fittings
- Food processing equipment
- Process industry equipment in sulphuric acid, nitric acid, polythionic acid, urea production, organic & fatty acids
- Pulp and paper Industry valves and fittings

CHARACTERISTICS

- Mechanical strength better than that of other austenitics including 316/316L
- Greater corrosion resistance than other austenitics
- Good mechanical properties at elevated and sub-zero temperatures
- Good ductility and impact strength maintained at sub-zero temperatures
- Does not become magnetic even when severely cold worked
- Utilises the same fabrication procedures as stainless steel 300 grades
- Utilises the same cooling techniques as stainless steel 300 grades
- Readily weldable using standard processes
- Listed in food handling standards (FDA) as an acceptable material for food contact surfaces
- Listed in MR-1075 for sour service oilfield applications

MECHANICAL PROPERTIES

Property	Value
0.2% Proof Stress	380 N/mm ²
Tensile Strength	690 N/mm ²
Hardness Brinell	293 max HB

DISCLAIMER

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