

Integrex 50 HS / Nit 50 HS - UNS S20910

MATERIAL DESCRIPTION

Integrex 50HS / Nit 50HS is a high strength austenitic stainless steel with good corrosion resistance.

The addition of Nitrogen enhances the material strength,

The Nitrogen is homogenous throughout the material. Integrex 50HS / Nit 50HS type materials approximately twice the yield strength of 304L and 316L.

Common applications include marine environments & medical implantations.

APPLICABLE SPECIFICATIONS

ASTM A276/A276M, ASTM A479/A479M Type XM-19

ASTM A182/A182M, ASME SA182/SA182M (Chemistry Only)

ASME SA276, ASME SA479/SA479M (Chemistry Only)

ANSI/NACE MR0175/ISO15156-3, ANSI/NACE MR0103

UNS S20910 Type XM-19

API 6A PSL 3 & PED 2014/68/EU

HEAT TREATMENT

Intoco bar stock is in the Hot Rolled (Thermo mechanically worked - High strength) condition

CHEMICAL ANALYSIS RANGE

ELEMENT	WEIGHT %	ELEMENT	WEIGHT %
C	0.06 Max.	Mo	1.50- 3.00
Mn	4.00 – 6.00	Cr	20.5 – 23.5
Si	1.00 Max	S	0.030 Max
Ni	11.5 – 13.5	Cb	0.10 – 0.30
P	0.045 Max	V	0.10 – 0.30
N	0.20 – 0.40		

TYPICAL MECHANICAL PROPERTIES (Min unless stated)

Size Range (Dia)	0.2% Yield ksi (MPa)	UTS ksi (MPa)	Ductility		Full size (10mm x 10mm) Charpy V Notch @ -76°C Ft-lbs (J)	Hardness HBW (HRC)
			%El 4D	%RA		
≥2"	105 (725)	135 (930)	20	50	≥40 (55)	255 – 333 (25-35)
>2 to ≥3"	75 (515)	115 (795)	25			
>3	60 (415)	100 (690)	30			

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