

## F51 - DUPLEX - UNS S31803

### MATERIAL DESCRIPTION

F51 is a duplex stainless steel that offers a high resistance to general , pitting, stress and crevice corrosion, as well as a high mechanical strength and good weldability.

### APPLICABLE SPECIFICATIONS

ASTM A276/276M , ASTM A479/479M

NACE MR-0175/ISO 15156

NORSOK M-650, NORSOK M-630 - MDS-D47

1.4462 X2CrNiMoN 22 5 3

### HEAT TREATMENT

Intoco bar stock is in the solution annealed & water quenched condition

### CHEMICAL ANALYSIS RANGE

ELEMENT	WEIGHT %	ELEMENT	WEIGHT %
C	0.03 Max	Cr	21.0 to 23.0
Si	1.00 Max	N	0.08 to 0.20
Mn	2.00 Max	Cu	0.50 Max
P	0.03 Max	Mo	2.50 to 3.50
S	0.02 Max	Ni	4.50 to 6.50

### TYPICAL MECHANICAL PROPERTIES (Min unless stated) SOLUTION ANNEALED CONDITION

0.2% Yield ksi (MPa)	UTS ksi (MPa)	Ductility		Full size (10mm x 10mm) Charpy V Notch @ -46°C	Hardness HBW (HRC)
		%El 4D	%RA	Ft-lbs (J)	
65 (450)	95 (655)	25	45	33(45) (≤200mm Dia)	271 (28) max

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