

1.4462 / F51 Duplex / 1.4462

**Chemical Properties**

Element	Chemical Composition %
Carbon (C)	0.0 - 0.03
Chromium (Cr)	21.0 - 23.0
Manganese (Mn)	2.00 max
Silicon (Si)	1.00 max
Phosphorus (P)	0.0- 0.03
Sulphur (S)	0.0 - 0.02
Nickel (Ni)	4.50 - 6.50
Nitrogen (N)	0.08 - 0.20
Molybdenum (Mo)	2.50 - 3.50
Iron (Fe)	Balance

**Mechanical Properties**

Property	Value
Proof Stress	450 min MPa
Tensile Strength	620MPa
Elongation	25% min
Hardness Brinell	290 HB max

**Physical Properties**

Property	Value
Density	7.805 g/cm <sup>3</sup>
Thermal Expansion	13.7 x 10 <sup>-6</sup> /K
Modulus of Elasticity	200 GPa
Thermal Conductivity	19.0 W/m.K
Electrical Resistivity	0.085 x 10 <sup>-6</sup> Ω.m

**Product Forms****Round Bar****Seamless Pipe****Disclaimer**

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