

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 ³
Thermal Expansion	13.7 x 10 ⁻⁶ /K
Modulus of Elasticity	200 GPa
Thermal Conductivity	19.0 W/m.K
Electrical Resistivity	0.085 x 10 ⁻⁶ Ω.m

Product Forms

Round Bar

Seamless Pipe

Disclaimer

This data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

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