

# Stainless Steel (inc. High Performance) - 1.4305 / 303

## Square Bar

## Properties

Stock		Chemical Properties	
Size SQ (mm)	Weight/m (Kg)	Element	Chemical Composition %
5	0.20	Carbon (C)	0.0 - 0.10
8	0.50	Chromium (Cr)	17.0 - 19.0
12	1.14	Manganese (Mn)	0.0 - 2.0
16	2.00	Silicon (Si)	0.0 - 1.0
20	3.14	Phosphorus (P)	0.0 - 0.45
25	4.91	Sulphur (S)	0.0 - 0.15
		Nickel (Ni)	8.0 - 10.0
		Iron (Fe)	Balance

  

Mechanical Properties	
Property	Value
Proof Stress	190 min MPa
Tensile Strength	500 to 700 MPa
Elongation A50 mm	35% min

  

Physical Properties	
Property	Value
Density	8.03 g/cm <sup>3</sup>
Melting Point	1455°C
Thermal Expansion	17.3 x 10 <sup>-6</sup> /K
Modulus of Elasticity	193 GPa
Thermal Conductivity	16.3 W/m.K
Electrical Resistivity	0.072 x 10 <sup>-6</sup> Ω.m

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