

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

Round Bar

Properties

Stock		Chemical Properties	
Dia (in)	Weight/m	Element	Chemical Composition %
3mm	0.06	Carbon (C)	0.0 - 0.10
1/8	0.06	Chromium (Cr)	17.0 - 19.0
4mm*	0.10	Manganese (Mn)	0.0 - 2.0
3/16	0.14	Silicon (Si)	0.0 - 1.0
5mm*	0.15	Phosphorus (P)	0.0 - 0.45
7/32	0.19	Sulphur (S)	0.0 - 0.15
6mm*	0.22	Nickel (Ni)	8.0 - 10.0
1/4	0.25	Iron (Fe)	Balance
7mm	0.30	<b>Mechanical Properties</b>	
9/32	0.31	<b>Property</b>	<b>Value</b>
5/16	0.39	Proof Stress	190 min MPa
8mm*	0.40	Tensile Strength	500 to 700 MPa
9mm	0.50	Elongation A50 mm	35% min
3/8*	0.56	<b>Physical Properties</b>	
10mm*	0.62	<b>Property</b>	<b>Value</b>
7/16	0.76	Density	8.03 g/cm <sup>3</sup>
12mm*	0.89	Melting Point	1455°C
1/2	0.99	Thermal Expansion	17.3 x 10 <sup>-6</sup> /K
13mm	1.04	Modulus of Elasticity	193 GPa
9/16	1.26	Thermal Conductivity	16.3 W/m.K
14mm	1.27	Electrical Resistivity	0.072 x 10 <sup>-6</sup> Ω.m
15mm	1.39		
5/8	1.55		
16mm*	1.58		
11/16	1.88		
18mm	2.00		
3/4*	2.24		
20mm*	2.47		
22mm*	2.98		
7/8	3.04		
24mm*	3.55		
25mm*	3.85		
1*	3.98		
26mm	4.17		
27mm	4.50		
28mm	4.83		
1 1/8	5.03		
30mm*	5.55		
1 1/4	6.21		
32mm	6.31		
1 3/8	7.47		
35mm*	7.55		

1 1/2	8.94
40mm*	9.86
1 5/8	10.50
1 3/4	12.18
45mm*	12.48
1 7/8	13.98
50mm*	15.41
2	15.90
2 1/8	17.96
2 1/4	20.132
60mm	22.21
2 3/8	22.40
2 1/2	24.85
2 5/8	27.39
2 3/4	30.07
3	35.76
3 1/4	42.00
3 1/2	48.69
3 3/4	55.91
4	63.62
4 1/4	71.80
4 1/2	80.50
4 3/4	89.70
5	99.40
5 1/4	110.00
5 1/2	120.00
5 3/4	131.00
6	143.00
6 1/2	168.00
6 3/4	181.00
7	195.00
7 1/2	224.00
8	255.00
3mm - 1": Bright Drawn H9	
1 1/8" - 3": Smooth Turned H10	
3 1/4" - 8": Peeled K12/K16	
*: Available in Bright Ground H8	

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