

## Stainless Steel (inc. High Performance) - 1.4404 / 316L

### Flat Bar

### Properties

Stock		Chemical Properties	
Size (mm)	Weight/m (Kg)	Element	Chemical Composition %
12 x 3	0.28	Carbon (C)	0.0 - 0.03
12 x 5	0.47	Chromium (Cr)	16.50 - 18.50
12 x 6	0.57	Molybdenum (Mo)	2.0 - 2.5
20 x 3	0.47	Silicon (Si)	0.0 - 1.0
20 x 5	0.79	Phosphorus (P)	0.0 - 0.05
20 x 6	0.92	Sulphur (S)	0.0 - 0.01
20 x 10*	1.57	Nickel (Ni)	10.0 - 13.0
20 x 12*	1.92	Manganese (Mn)	0.0 - 2.0
25 x 3	0.59	Iron (Fe)	Balance
25 x 5	0.98	Above properties are for 1.4404	
25 x 6	1.18	1.4404/316L also corresponds to the following designation 316S11	
25 x 8	1.58		
25 x 10*	1.98		
25 x 12*	2.36		
25 x 15*	2.96		
25 x 20*	3.93		
30 x 3	0.71		
30 x 5	1.12		
30 x 6	1.41		
30 x 8	1.90		
30 x 10*	2.37		
30 x 12*	2.83		
30 x 15*	3.56		
30 x 20*	4.78		
30 x 25*	5.93		
35 x 6	1.66		
40 x 3	0.94		
40 x 5	1.57		
40 x 6	1.88		
40 x 8	2.51		
40 x 10*	3.16		
40 x 12*	3.79		
40 x 15*	4.75		
40 x 20*	6.32		
40 x 25*	7.85		
45 x 6	2.13		
50 x 3	1.18		
50 x 5	1.96		
50 x 6	2.36		
50 x 8	3.14		
50 x 10*	3.95		
50 x 12*	4.74		

  

Mechanical Properties	
Property	Value
Properties below are for 1.4404 (316L) which also corresponds to 316S11	
Proof Stress	220 min MPa
Tensile Strength	520 - 680 MPa
Elongation A50 mm	40% min

  

Physical Properties	
Property	Value
Density	8.00 g/cm <sup>3</sup>
Melting Point	1400°C
Thermal Expansion	15.9 x 10 <sup>-6</sup> /K
Modulus of Elasticity	193 GPa
Thermal Conductivity	16.3 W/m.K
Electrical Resistivity	0.074 x 10 <sup>-6</sup> Ω.m
1.4404/316L also corresponds to the following designation 316S11	

50 x 15*	5.93
50 x 20*	7.90
50 x 25*	9.81
60 x 3	1.42
60 x 5	2.36
60 x 6	2.83
60 x 8	3.79
60 x 10*	4.74
60 x 12	5.69
60 x 15*	7.11
60 x 20*	9.42
60 x 25*	11.90
65 x 6	3.08
65 x 10	5.13
75 x 3	1.78
75 x 5	2.96
75 x 6	3.52
75 x 8	4.74
75 x 10*	5.93
75 x 12*	7.11
75 x 15*	8.88
75 x 20*	11.90
75 x 25*	14.70
80 x 6	3.77
80 x 8	5.02
80 x 10*	6.32
100 x 3	2.37
100 x 5	3.95
100 x 6	4.71
100 x 8	6.32
100 x 10*	7.90
100 x 12*	9.48
100 x 15*	11.90
100 x 20*	15.70
100 x 25*	19.60
125 x 6	5.97
125 x 10	9.95
125 x 12	11.85
150 x 6	7.11
150 x 8	9.48
150 x 10	11.85
150 x 12	14.32
200 x 6	9.48
200 x 8	12.64
200 x 10	15.80

\*: Available hot rolled

## 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

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