

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

Welded Pipe

Properties

Stock			Chemical Properties	
NB (in)	SCH	Weight/m (Kg)	Element	Chemical Composition %
ASTM A312			Carbon (C)	0.0 - 0.03
1/2	5S	0.81	Chromium (Cr)	16.50 - 18.50
1/2	10S	1.01	Molybdenum (Mo)	2.0 - 2.5
1/2	40S	1.29	Silicon (Si)	0.0 - 1.0
3/4	5S	1.04	Phosphorus (P)	0.0 - 0.05
3/4	10S	1.30	Sulphur (S)	0.0 - 0.01
3/4	40S	1.71	Nickel (Ni)	10.0 - 13.0
1	5S	1.31	Manganese (Mn)	0.0 - 2.0
1	10S	2.13	Iron (Fe)	Balance
1	40S	2.54	Above properties are for 1.4404	
1 1/4	5S	1.68	1.4404/316L also corresponds to the following designation 316S11	
1 1/4	10S	2.74		
1 1/4	40S	3.44		
1 1/2	5S	1.93	Mechanical Properties	
1 1/2	10S	3.16	Property	Value
1 1/2	40S	4.11	Properties below are for 1.4404 (316L) which also corresponds to 316S11	
2	5S	2.42	Proof Stress	220 min MPa
2	10S	4.00	Tensile Strength	520 - 680 MPa
2	40S	5.52	Elongation A50 mm	40% min
2 1/2	5S	3.75	Physical Properties	
2 1/2	10S	5.34	Property	Value
2 1/2	40S	8.77	Density	8.00 g/cm ³
3	5S	4.59	Melting Point	1400°C
3	10S	6.56	Thermal Expansion	15.9 x 10 ⁻⁶ /K
3	40S	11.47	Modulus of Elasticity	193 GPa
3 1/2	5S	5.26	Thermal Conductivity	16.3 W/m.K
3 1/2	10S	7.53	Electrical Resistivity	0.074 x 10 ⁻⁶ Ω.m
3 1/2	40S	13.78	1.4404/316L also corresponds to the following designation 316S11	
4	5S	5.93		
4	10S	8.50		
4	40S	16.32		
5	10S	11.74		
5	40S	22.10		
6	5S	11.48		
6	10S	14.04		
6	40S	28.70		
8	5S	15.00		
8	10S	20.74		
8	40S	43.20		
10	5S	22.70		
10	10S	28.21		
10	40S	61.23		

12	5S	31.30
12	10S	36.54
12	40S	74.92
14	10S	41.99
16	10S	48.07
18	10S	54.15
20	10S	69.95
24	10S	95.92

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