



MATERIAL SPECIFICATIONS
316L-40 (S31603)

316L 0.125 in to 0.625 in																	
Designation			Wall Thickness		Mass per Unit Length	Calculated Inside Diameter	Tubing Area (sq.in.)		Tube Load Body		Internal Pressure (psi)		Collapse Strength	Internal Capacity per 1000ft		Torsional Yield	Borets Testing criteria
							W/Min.	Internal Min	Yield Minimum	Tensile Minimum	Hydro Test 90%	Internal Yield Min.					
			t	tmin			wpe	d									
Size		Wall	in.	in.	lb/ft	in.	In.²	In.²	lb	lb	psig	psig	psig	gal	bar	ft.lbs	psig
1/8	0.125	0.028	0.028	0.025	0.03	0.069	0.008	0.004	300	600	13,100	14,500	12,800	0.19	0.005	1	13,100
	0.125	0.035	0.035	0.032	0.04	0.055	0.009	0.003	400	700	15,600	17,300	15,100	0.12	0.003	1	15,600
1/4	0.250	0.035	0.035	0.032	0.09	0.180	0.022	0.027	900	1,700	8,700	9,700	8,800	1.32	0.031	4	10,000
	0.250	0.049	0.049	0.044	0.11	0.152	0.029	0.021	1,200	2,200	11,800	13,100	11,700	0.94	0.022	5	10,000-15,000
	0.250	0.065	0.065	0.059	0.14	0.120	0.035	0.014	1,500	2,600	14,800	16,400	14,300	0.59	0.014	5	10,000-15,000
3/8	0.375	0.035	0.035	0.032	0.13	0.305	0.034	0.076	1,500	2,600	5,900	6,600	6,200	3.79	0.090	10	6,000
	0.375	0.049	0.049	0.044	0.18	0.277	0.046	0.065	2,000	3,500	8,200	9,100	8,300	3.13	0.075	13	10,000
	0.375	0.065	0.065	0.059	0.22	0.245	0.058	0.052	2,500	4,400	10,500	11,700	10,500	2.45	0.058	15	10,000-15,000
	0.375	0.080	0.080	0.072	0.26	0.215	0.069	0.042	3,000	5,200	12,600	14,000	12,000	1.88	0.045	17	10,000-15,000
1/2	0.500	0.049	0.049	0.044	0.25	0.402	0.063	0.133	2,800	4,900	6,300	7,000	6,500	6.59	0.157	25	6,300
	0.500	0.065	0.065	0.059	0.31	0.370	0.081	0.115	3,600	6,200	8,100	9,000	8,300	5.58	0.133	31	8,100
	0.500	0.080	0.080	0.072	0.37	0.340	0.097	0.100	4,200	7,400	9,800	10,900	9,900	4.71	0.112	35	10,000
5/8	0.625	0.049	0.049	0.044	0.31	0.527	0.080	0.226	3,500	6,200	5,000	5,600	5,300	11.32	0.270	42	5,000
	0.625	0.065	0.065	0.059	0.40	0.495	0.104	0.203	4,600	8,000	6,600	7,300	6,800	9.99	0.238	52	6,600

PHYSICAL PROPERTIES

Yield strength: $\geq 40,000$ psi
Tensile strength: $\geq 70,000$ psi
Maximum Hardness: 200HV

CHEMICAL COMPOSITION - %

C ≤ 0.030
Mn ≤ 2.00
P ≤ 0.045
S ≤ 0.030
Si ≤ 0.75
Cr 16.0-18.0



Ni 10.0-14.0
Mo 2.00-3.00
others



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◆ Tube Body Load: Yield & Tensile Min-imums calculated on Specified Wall.

◆ Hydrostatic Test Pressure: All completed coiled tubing strings shall be hydrostat-ic pressure tested prior to shipping.

The hydrostatic test pressure shall be lesser of 90% of the theoretical burst yield strength or 17,500 psi or 120700 kpa (unless specifically agreed between purchaser and manufacturer).

◆ Internal Yield: Internal Pressure to cause yielding using Minimum Yield Strength and Minimum Wall Thickness.

◆ Maximum Working Pressure is a function of tube condition and is determined by the user.

◆ Torque Values Calculated Using Minimum Wall Thickness and Minimum Yield Strength.

◆ Other size/wall thickness available on request.

◆ Above data is for new tubing at speci-fied minimum strengths.