

DURACOIL 110

Coiled Tubing Technical Data

MECHANICAL PROPERTIES

Specified Min Yield Strength (SMYS) 110,000 psi

Specified Min Tensile Strength (SMTS) 118,000 psi

Max Hardness 30 HRC

Min. Elongation, % (2" Gage Length) Per API: $\text{Min}\% = 625000 * \text{Area}^{0.2} / \text{SMTS}^{0.9}$

Specified Dimensions			Nominal Weight w (lb/ft)	Axial Load Capacity		Pressure Capacity		Torsional Strength		External Displacement per 1000 ft		Internal Capacity per 1000 ft	
Outside Diameter D (in)	Wall Thickness t (in)	Inside Diameter d (in)		Yield Load Ly (lb) t_{nom}	Tensile Load Lt (lb) t_{nom}	Yield Pressure Y_p (psi)	Hydrotest Pressure 90% Y_p (psi)	Yield (ft/lb) t_{min}	Ultimate (ft/lb) t_{min}	Gallons	Barrels	Gallons ²	Barrels ³
1.250	0.109	1.032	1.33	42,980	46,100	18,300	15,000	1,050	1,126	63.75	1.52	43.45	1.03
1.250	0.116	1.018	1.41	45,460	48,760	19,540	15,000	1,101	1,181	63.75	1.52	42.28	1.01
1.250	0.125	1.000	1.51	48,600	52,130	20,770	15,000	1,151	1,234	63.75	1.52	40.80	0.97
1.250	0.134	0.982	1.60	51,680	55,440	22,350	15,000	1,211	1,300	63.75	1.52	39.34	0.94
1.250	0.145	0.960	1.72	55,370	59,400	24,290	15,000	1,281	1,375	63.75	1.52	37.60	0.90
1.250	0.156	0.938	1.83	58,980	63,270	26,220	15,000	1,347	1,445	63.75	1.52	35.90	0.85
1.250	0.175	0.900	2.01	65,010	69,740	29,570	15,000	1,449	1,555	63.75	1.52	33.05	0.79
1.250	0.190	0.870	2.16	69,600	74,660	31,680	15,000	1,508	1,618	63.75	1.52	30.88	0.74
1.250	0.204	0.842	2.28	73,740	79,100	34,140	15,000	1,571	1,685	63.75	1.52	28.93	0.69
1.500	0.109	1.282	1.62	52,400	56,210	15,250	13,730	1,577	1,691	91.80	2.19	67.06	1.60
1.500	0.116	1.268	1.72	55,480	59,520	16,280	14,650	1,659	1,780	91.80	2.19	65.60	1.56
1.500	0.125	1.250	1.84	59,400	63,720	17,310	15,000	1,739	1,865	91.80	2.19	63.75	1.52
1.500	0.134	1.232	1.96	63,260	67,860	18,630	15,000	1,837	1,971	91.80	2.19	61.93	1.47
1.500	0.145	1.210	2.10	67,900	72,840	20,240	15,000	1,952	2,094	91.80	2.19	59.74	1.42
1.500	0.156	1.188	2.24	72,450	77,720	21,850	15,000	2,061	2,211	91.80	2.19	57.58	1.37
1.500	0.175	1.150	2.48	80,130	85,960	24,640	15,000	2,235	2,398	91.80	2.19	53.96	1.28
1.500	0.190	1.120	2.66	86,010	92,270	26,400	15,000	2,337	2,507	91.80	2.19	51.18	1.22
1.500	0.204	1.092	2.83	91,360	98,010	28,450	15,000	2,448	2,626	91.80	2.19	48.65	1.16
1.500	0.224	1.052	3.06	98,770	105,960	31,390	15,000	2,592	2,781	91.80	2.19	45.15	1.08
1.750	0.109	1.532	1.91	61,810	66,310	13,070	11,760	2,212	2,373	124.95	2.97	95.76	2.28
1.750	0.116	1.518	2.03	65,500	70,270	13,950	12,560	2,332	2,502	124.95	2.97	94.02	2.24
1.750	0.125	1.500	2.17	70,200	75,300	14,830	13,350	2,449	2,627	124.95	2.97	91.80	2.19
1.750	0.134	1.482	2.32	74,830	80,270	15,970	14,370	2,595	2,784	124.95	2.97	89.61	2.13
1.750	0.145	1.460	2.49	80,420	86,270	17,350	15,000	2,766	2,967	124.95	2.97	86.97	2.07
1.750	0.156	1.438	2.66	85,930	92,180	18,730	15,000	2,930	3,143	124.95	2.97	84.37	2.01
1.750	0.175	1.400	2.95	95,250	102,180	21,120	15,000	3,195	3,428	124.95	2.97	79.97	1.90
1.750	0.190	1.370	3.17	102,430	109,880	22,630	15,000	3,352	3,596	124.95	2.97	76.58	1.82
1.750	0.204	1.342	3.38	108,990	116,920	24,390	15,000	3,526	3,782	124.95	2.97	73.48	1.75
1.750	0.224	1.302	3.66	118,130	126,720	26,900	15,000	3,755	4,028	124.95	2.97	69.16	1.65
1.750	0.236	1.278	3.83	123,480	132,460	28,410	15,000	3,883	4,166	124.95	2.97	66.64	1.59
1.750	0.250	1.250	4.01	129,590	139,020	30,170	15,000	4,024	4,317	124.95	2.97	63.75	1.52

Specified Dimensions			Nominal Weight w (lb/ft)	Axial Load Capacity		Pressure Capacity		Torsional Strength		External Displacement per 1000 ft		Internal Capacity per 1000 ft	
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2.000	0.109	1.782	2.21	71,230	76,410	11,440	10,300	2,955	3,170	163.20	3.89	129.56	3.08
2.000	0.116	1.768	2.34	75,520	81,020	12,210	10,990	3,121	3,348	163.20	3.89	127.53	3.04
2.000	0.125	1.750	2.51	80,990	86,880	12,980	11,680	3,282	3,521	163.20	3.89	124.95	2.97
2.000	0.134	1.732	2.68	86,410	92,690	13,970	12,570	3,484	3,738	163.20	3.89	122.39	2.91
2.000	0.145	1.710	2.88	92,950	99,710	15,180	13,660	3,723	3,994	163.20	3.89	119.30	2.84
2.000	0.156	1.688	3.08	99,410	106,640	16,390	14,750	3,953	4,241	163.20	3.89	116.25	2.77
2.000	0.175	1.650	3.42	110,370	118,400	18,480	15,000	4,330	4,644	163.20	3.89	111.08	2.64
2.000	0.190	1.620	3.68	118,840	127,490	19,800	15,000	4,554	4,886	163.20	3.89	107.08	2.55
2.000	0.204	1.592	3.92	126,610	135,820	21,340	15,000	4,805	5,154	163.20	3.89	103.41	2.46
2.000	0.224	1.552	4.26	137,480	147,480	23,540	15,000	5,140	5,514	163.20	3.89	98.27	2.34
2.000	0.236	1.528	4.46	143,860	154,330	24,860	15,000	5,329	5,717	163.20	3.89	95.26	2.27
2.000	0.250	1.500	4.68	151,190	162,190	26,400	15,000	5,540	5,942	163.20	3.89	91.80	2.19
2.000	0.276	1.448	5.09	164,430	176,390	29,260	15,000	5,900	6,329	163.20	3.89	85.55	2.04
2.375	0.125	2.125	3.01	97,190	104,260	10,930	9,840	4,762	5,108	230.14	5.48	184.24	4.39
2.375	0.134	2.107	3.21	103,770	111,320	11,760	10,580	5,066	5,434	230.14	5.48	181.13	4.31
2.375	0.145	2.085	3.46	111,740	119,870	12,780	11,500	5,428	5,822	230.14	5.48	177.37	4.22
2.375	0.156	2.063	3.71	119,630	128,330	13,800	12,420	5,778	6,198	230.14	5.48	173.64	4.13
2.375	0.175	2.025	4.12	133,050	142,720	15,560	14,000	6,358	6,820	230.14	5.48	167.30	3.98
2.375	0.190	1.995	4.44	143,470	153,900	16,670	15,000	6,708	7,196	230.14	5.48	162.38	3.87
2.375	0.204	1.967	4.74	153,050	164,180	17,970	15,000	7,100	7,617	230.14	5.48	157.86	3.76
2.375	0.224	1.927	5.16	166,510	178,620	19,820	15,000	7,633	8,188	230.14	5.48	151.50	3.61
2.375	0.236	1.903	5.40	174,450	187,140	20,930	15,000	7,937	8,515	230.14	5.48	147.75	3.52
2.375	0.250	1.875	5.69	183,590	196,940	22,230	15,000	8,278	8,880	230.14	5.48	143.44	3.42
2.375	0.276	1.823	6.20	200,200	214,760	24,640	15,000	8,873	9,518	230.14	5.48	135.59	3.23
2.625	0.134	2.357	3.57	115,350	123,740	10,640	9,580	6,285	6,742	281.14	6.69	226.66	5.40
2.625	0.145	2.335	3.85	124,270	133,310	11,570	10,410	6,743	7,234	281.14	6.69	222.45	5.30
2.625	0.156	2.313	4.12	133,100	142,780	12,490	11,240	7,188	7,711	281.14	6.69	218.28	5.20
2.625	0.175	2.275	4.59	148,170	158,940	14,080	12,670	7,928	8,505	281.14	6.69	211.16	5.03
2.625	0.190	2.245	4.95	159,880	171,510	15,090	13,580	8,377	8,986	281.14	6.69	205.63	4.90
2.625	0.204	2.217	5.29	170,670	183,090	16,260	14,630	8,882	9,528	281.14	6.69	200.53	4.77
2.625	0.224	2.177	5.76	185,860	199,380	17,940	15,000	9,573	10,269	281.14	6.69	193.36	4.60
2.625	0.236	2.153	6.04	194,840	209,010	18,940	15,000	9,969	10,694	281.14	6.69	189.12	4.50
2.625	0.250	2.125	6.36	205,190	220,110	20,110	15,000	10,415	11,173	281.14	6.69	184.24	4.39
2.625	0.276	2.073	6.94	224,050	240,340	22,290	15,000	11,199	12,013	281.14	6.69	175.33	4.17

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2.875	0.145	2.585	4.24	136,800	146,750	10,560	9,500	8,202	8,798	337.24	8.03	272.63	6.49
2.875	0.156	2.563	4.54	146,580	157,240	11,400	10,260	8,753	9,390	337.24	8.03	268.01	6.38
2.875	0.175	2.525	5.06	163,280	175,160	12,860	11,570	9,673	10,376	337.24	8.03	260.12	6.19
2.875	0.190	2.495	5.46	176,300	189,120	13,770	12,390	10,233	10,977	337.24	8.03	253.98	6.05
2.875	0.204	2.467	5.83	188,300	201,990	14,850	13,370	10,866	11,656	337.24	8.03	248.31	5.91
2.875	0.224	2.427	6.36	205,210	220,140	16,380	14,740	11,734	12,588	337.24	8.03	240.32	5.72
2.875	0.236	2.403	6.67	215,230	230,880	17,290	15,000	12,235	13,125	337.24	8.03	235.60	5.61
2.875	0.250	2.375	7.03	226,780	243,280	18,370	15,000	12,801	13,732	337.24	8.03	230.14	5.48
2.875	0.276	2.323	7.68	247,890	265,920	20,350	15,000	13,801	14,805	337.24	8.03	220.17	5.24