

DURACOIL 140

Coiled Tubing Technical Data

MECHANICAL PROPERTIES

Specified Min Yield Strength (SMYS) 140,000 psi

Specified Min Tensile Strength (SMTS) 145,000 psi

Max Hardness 40 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	54,700	56,650	23,300	15,000	1,336	1,383	63.75	1.52	43.45	1.03
1.250	0.116	1.018	1.41	57,860	59,920	24,860	15,000	1,401	1,451	63.75	1.52	42.28	1.01
1.250	0.125	1.000	1.51	61,850	64,060	26,430	15,000	1,465	1,517	63.75	1.52	40.80	0.97
1.250	0.134	0.982	1.60	65,770	68,120	28,450	15,000	1,542	1,597	63.75	1.52	39.34	0.94
1.250	0.145	0.960	1.72	70,470	72,990	30,910	15,000	1,631	1,689	63.75	1.52	37.60	0.90
1.250	0.156	0.938	1.83	75,060	77,740	33,380	15,000	1,714	1,775	63.75	1.52	35.90	0.85
1.250	0.175	0.900	2.01	82,740	85,700	37,630	15,000	1,845	1,911	63.75	1.52	33.05	0.79
1.250	0.190	0.870	2.16	88,580	91,740	40,320	15,000	1,919	1,988	63.75	1.52	30.88	0.74
1.250	0.204	0.842	2.28	93,850	97,200	43,460	15,000	1,999	2,070	63.75	1.52	28.93	0.69
1.500	0.109	1.282	1.62	66,690	69,070	19,410	15,000	2,007	2,078	91.80	2.19	67.06	1.60
1.500	0.116	1.268	1.72	70,610	73,130	20,720	15,000	2,111	2,187	91.80	2.19	65.60	1.56
1.500	0.125	1.250	1.84	75,590	78,290	22,030	15,000	2,213	2,292	91.80	2.19	63.75	1.52
1.500	0.134	1.232	1.96	80,510	83,380	23,710	15,000	2,338	2,422	91.80	2.19	61.93	1.47
1.500	0.145	1.210	2.10	86,410	89,500	25,760	15,000	2,485	2,573	91.80	2.19	59.74	1.42
1.500	0.156	1.188	2.24	92,220	95,510	27,810	15,000	2,623	2,717	91.80	2.19	57.58	1.37
1.500	0.175	1.150	2.48	101,980	105,630	31,360	15,000	2,845	2,947	91.80	2.19	53.96	1.28
1.500	0.190	1.120	2.66	109,470	113,380	33,600	15,000	2,974	3,081	91.80	2.19	51.18	1.22
1.500	0.204	1.092	2.83	116,280	120,440	36,210	15,000	3,115	3,227	91.80	2.19	48.65	1.16
1.500	0.224	1.052	3.06	125,710	130,200	39,950	15,000	3,299	3,417	91.80	2.19	45.15	1.08
1.750	0.109	1.532	1.91	78,670	81,480	16,640	14,980	2,815	2,916	124.95	2.97	95.76	2.28
1.750	0.116	1.518	2.03	83,370	86,340	17,760	15,000	2,968	3,074	124.95	2.97	94.02	2.24
1.750	0.125	1.500	2.17	89,340	92,530	18,880	15,000	3,117	3,228	124.95	2.97	91.80	2.19
1.750	0.134	1.482	2.32	95,240	98,640	20,320	15,000	3,303	3,421	124.95	2.97	89.61	2.13
1.750	0.145	1.460	2.49	102,360	106,010	22,080	15,000	3,520	3,646	124.95	2.97	86.97	2.07
1.750	0.156	1.438	2.66	109,370	113,270	23,840	15,000	3,729	3,862	124.95	2.97	84.37	2.01
1.750	0.190	1.370	3.17	130,360	135,020	28,800	15,000	4,267	4,419	124.95	2.97	76.58	1.82
1.750	0.175	1.400	2.95	121,230	125,560	26,880	15,000	4,067	4,212	124.95	2.97	79.97	1.90
1.750	0.204	1.342	3.38	138,710	143,670	31,040	15,000	4,487	4,647	124.95	2.97	73.48	1.75
1.750	0.224	1.302	3.66	150,340	155,710	34,240	15,000	4,780	4,950	124.95	2.97	69.16	1.65
1.750	0.236	1.278	3.83	157,150	162,760	36,160	15,000	4,943	5,119	124.95	2.97	66.64	1.59
1.750	0.250	1.250	4.01	164,930	170,820	38,400	15,000	5,122	5,305	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	
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	Gallons2	Barrels3
2.000	0.109	1.782	2.21	90,660	93,890	14,560	13,100	3,761	3,895	163.20	3.89	129.56	3.08
2.000	0.116	1.768	2.34	96,120	99,550	15,540	13,990	3,972	4,114	163.20	3.89	127.53	3.04
2.000	0.125	1.750	2.51	103,080	106,770	16,520	14,870	4,177	4,327	163.20	3.89	124.95	2.97
2.000	0.134	1.732	2.68	109,980	113,900	17,780	15,000	4,435	4,593	163.20	3.89	122.39	2.91
2.000	0.145	1.710	2.88	118,300	122,530	19,320	15,000	4,739	4,908	163.20	3.89	119.30	2.84
2.000	0.156	1.688	3.08	126,520	131,040	20,860	15,000	5,031	5,211	163.20	3.89	116.25	2.77
2.000	0.175	1.650	3.42	140,470	145,490	23,520	15,000	5,510	5,707	163.20	3.89	111.08	2.64
2.000	0.190	1.620	3.68	151,260	156,660	25,200	15,000	5,797	6,004	163.20	3.89	107.08	2.55
2.000	0.204	1.592	3.92	161,140	166,900	27,160	15,000	6,115	6,333	163.20	3.89	103.41	2.46
2.000	0.224	1.552	4.26	174,970	181,220	29,960	15,000	6,542	6,776	163.20	3.89	98.27	2.34
2.000	0.236	1.528	4.46	183,100	189,640	31,640	15,000	6,783	7,025	163.20	3.89	95.26	2.27
2.000	0.250	1.500	4.68	192,420	199,300	33,600	15,000	7,050	7,302	163.20	3.89	91.80	2.19
2.000	0.276	1.448	5.09	209,280	216,750	37,240	15,000	7,509	7,777	163.20	3.89	85.55	2.04
2.375	0.125	2.125	3.01	123,700	128,120	13,910	12,520	6,060	6,277	230.14	5.48	184.24	4.39
2.375	0.134	2.107	3.21	132,080	136,790	14,970	13,470	6,448	6,678	230.14	5.48	181.13	4.31
2.375	0.145	2.085	3.46	142,220	147,300	16,270	14,640	6,908	7,155	230.14	5.48	177.37	4.22
2.375	0.156	2.063	3.71	152,250	157,690	17,570	15,000	7,354	7,617	230.14	5.48	173.64	4.13
2.375	0.175	2.025	4.12	169,330	175,380	19,810	15,000	8,092	8,381	230.14	5.48	167.30	3.98
2.375	0.190	1.995	4.44	182,590	189,110	21,220	15,000	8,537	8,842	230.14	5.48	162.38	3.87
2.375	0.204	1.967	4.74	194,790	201,750	22,870	15,000	9,037	9,360	230.14	5.48	157.86	3.76
2.375	0.224	1.927	5.16	211,920	219,490	25,230	15,000	9,715	10,062	230.14	5.48	151.50	3.61
2.375	0.236	1.903	5.40	222,020	229,950	26,640	15,000	10,102	10,463	230.14	5.48	147.75	3.52
2.375	0.250	1.875	5.69	233,660	242,000	28,290	15,000	10,536	10,912	230.14	5.48	143.44	3.42
2.375	0.276	1.823	6.20	254,800	263,900	31,360	15,000	11,292	11,696	230.14	5.48	135.59	3.23
2.625	0.134	2.357	3.57	146,810	152,050	13,550	12,200	7,999	8,285	281.14	6.69	226.66	5.40
2.625	0.145	2.335	3.85	158,160	163,810	14,720	13,250	8,582	8,889	281.14	6.69	222.45	5.30
2.625	0.156	2.313	4.12	169,400	175,450	15,890	14,300	9,149	9,476	281.14	6.69	218.28	5.20
2.625	0.175	2.275	4.59	188,570	195,310	17,920	15,000	10,090	10,451	281.14	6.69	211.16	5.03
2.625	0.190	2.245	4.95	203,480	210,750	19,200	15,000	10,661	11,042	281.14	6.69	205.63	4.90
2.625	0.204	2.217	5.29	217,220	224,980	20,690	15,000	11,305	11,709	281.14	6.69	200.53	4.77
2.625	0.224	2.177	5.76	236,550	245,000	22,830	15,000	12,183	12,619	281.14	6.69	193.36	4.60
2.625	0.236	2.153	6.04	247,970	256,830	24,110	15,000	12,688	13,141	281.14	6.69	189.12	4.50
2.625	0.250	2.125	6.36	261,150	270,470	25,600	15,000	13,256	13,729	281.14	6.69	184.24	4.39
2.625	0.276	2.073	6.94	285,150	295,330	28,370	15,000	14,253	14,762	281.14	6.69	175.33	4.17

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
2.875	0.145	2.585	4.24	174,100	180,320	13,440	12,100	10,439	10,812	337.24	8.03	272.63	6.49
2.875	0.156	2.563	4.54	186,560	193,220	14,510	13,060	11,141	11,538	337.24	8.03	268.01	6.38
2.875	0.175	2.525	5.06	207,820	215,240	16,360	14,720	12,311	12,751	337.24	8.03	260.12	6.19
2.875	0.190	2.495	5.46	224,380	232,390	17,530	15,000	13,024	13,489	337.24	8.03	253.98	6.05
2.875	0.204	2.467	5.83	239,650	248,210	18,890	15,000	13,830	14,323	337.24	8.03	248.31	5.91
2.875	0.224	2.427	6.36	261,180	270,510	20,840	15,000	14,935	15,468	337.24	8.03	240.32	5.72
2.875	0.236	2.403	6.67	273,920	283,710	22,010	15,000	15,572	16,128	337.24	8.03	235.60	5.61
2.875	0.250	2.375	7.03	288,630	298,940	23,370	15,000	16,293	16,874	337.24	8.03	230.14	5.48
2.875	0.276	2.323	7.68	315,500	326,760	25,910	15,000	17,565	18,192	337.24	8.03	220.17	5.24