

DURACOIL 100

Coiled Tubing Technical Data

MECHANICAL PROPERTIES

Specified Min Yield Strength (SMYS) 100,000 psi

Specified Min Tensile Strength (SMTS) 108,000 psi

Max Hardness 28 HRC

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

Specified Dimensions				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)	Nominal Weight w (lb/ft)	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	39,070	42,200	16,640	14,980	954	1,030	63.75	1.52	43.45	1.03
1.250	0.116	1.018	1.41	41,330	44,630	17,760	15,000	1,001	1,081	63.75	1.52	42.28	1.01
1.250	0.125	1.000	1.51	44,180	47,710	18,880	15,000	1,046	1,130	63.75	1.52	40.80	0.97
1.250	0.134	0.982	1.60	46,980	50,740	20,320	15,000	1,101	1,189	63.75	1.52	39.34	0.94
1.250	0.145	0.960	1.72	50,340	54,360	22,080	15,000	1,165	1,258	63.75	1.52	37.60	0.90
1.250	0.156	0.938	1.83	53,620	57,910	23,840	15,000	1,224	1,322	63.75	1.52	35.90	0.85
1.250	0.175	0.900	2.01	59,100	63,830	26,880	15,000	1,318	1,423	63.75	1.52	33.05	0.79
1.250	0.190	0.870	2.16	63,270	68,330	28,800	15,000	1,371	1,481	63.75	1.52	30.88	0.74
1.250	0.204	0.842	2.28	67,040	72,400	31,040	15,000	1,428	1,542	63.75	1.52	28.93	0.69
1.500	0.109	1.282	1.62	47,630	51,440	13,870	12,480	1,433	1,548	91.80	2.19	67.06	1.60
1.500	0.116	1.268	1.72	50,440	54,470	14,800	13,320	1,508	1,629	91.80	2.19	65.60	1.56
1.500	0.125	1.250	1.84	54,000	58,320	15,730	14,160	1,581	1,707	91.80	2.19	63.75	1.52
1.500	0.134	1.232	1.96	57,510	62,110	16,930	15,000	1,670	1,804	91.80	2.19	61.93	1.47
1.500	0.145	1.210	2.10	61,720	66,660	18,400	15,000	1,775	1,917	91.80	2.19	59.74	1.42
1.500	0.156	1.188	2.24	65,870	71,140	19,870	15,000	1,874	2,023	91.80	2.19	57.58	1.37
1.500	0.175	1.150	2.48	72,850	78,670	22,400	15,000	2,032	2,195	91.80	2.19	53.96	1.28
1.500	0.190	1.120	2.66	78,190	84,450	24,000	15,000	2,125	2,294	91.80	2.19	51.18	1.22
1.500	0.204	1.092	2.83	83,060	89,700	25,870	15,000	2,225	2,403	91.80	2.19	48.65	1.16
1.500	0.224	1.052	3.06	89,790	96,980	28,530	15,000	2,356	2,545	91.80	2.19	45.15	1.08
1.750	0.109	1.532	1.91	56,190	60,690	11,890	10,700	2,011	2,172	124.95	2.97	95.76	2.28
1.750	0.116	1.518	2.03	59,550	64,310	12,690	11,420	2,120	2,290	124.95	2.97	94.02	2.24
1.750	0.125	1.500	2.17	63,810	68,920	13,490	12,140	2,227	2,405	124.95	2.97	91.80	2.19
1.750	0.134	1.482	2.32	68,030	73,470	14,510	13,060	2,359	2,548	124.95	2.97	89.61	2.13
1.750	0.145	1.460	2.49	73,110	78,960	15,770	14,190	2,515	2,716	124.95	2.97	86.97	2.07
1.750	0.156	1.438	2.66	78,120	84,370	17,030	15,000	2,663	2,876	124.95	2.97	84.37	2.01
1.750	0.175	1.400	2.95	86,590	93,520	19,200	15,000	2,905	3,137	124.95	2.97	79.97	1.90
1.750	0.190	1.370	3.17	93,120	100,570	20,570	15,000	3,048	3,291	124.95	2.97	76.58	1.82
1.750	0.204	1.342	3.38	99,080	107,010	22,170	15,000	3,205	3,462	124.95	2.97	73.48	1.75
1.750	0.224	1.302	3.66	107,390	115,980	24,460	15,000	3,414	3,687	124.95	2.97	69.16	1.65
1.750	0.236	1.278	3.83	112,250	121,230	25,830	15,000	3,530	3,813	124.95	2.97	66.64	1.59
1.750	0.250	1.250	4.01	117,810	127,230	27,430	15,000	3,658	3,951	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	Gallons ²	Barrels ³
2.000	0.109	1.782	2.21	64,750	69,930	10,400	9,360	2,686	2,901	163.20	3.89	129.56	3.08
2.000	0.116	1.768	2.34	68,660	74,150	11,100	9,990	2,837	3,064	163.20	3.89	127.53	3.04
2.000	0.125	1.750	2.51	73,630	79,520	11,800	10,620	2,984	3,223	163.20	3.89	124.95	2.97
2.000	0.134	1.732	2.68	78,550	84,840	12,700	11,430	3,168	3,421	163.20	3.89	122.39	2.91
2.000	0.145	1.710	2.88	84,500	91,260	13,800	12,420	3,385	3,656	163.20	3.89	119.30	2.84
2.000	0.156	1.688	3.08	90,370	97,600	14,900	13,410	3,594	3,881	163.20	3.89	116.25	2.77
2.000	0.175	1.650	3.42	100,330	108,360	16,800	15,000	3,936	4,251	163.20	3.89	111.08	2.64
2.000	0.190	1.620	3.68	108,040	116,680	18,000	15,000	4,140	4,472	163.20	3.89	107.08	2.55
2.000	0.204	1.592	3.92	115,100	124,310	19,400	15,000	4,368	4,717	163.20	3.89	103.41	2.46
2.000	0.224	1.552	4.26	124,980	134,980	21,400	15,000	4,673	5,047	163.20	3.89	98.27	2.34
2.000	0.236	1.528	4.46	130,790	141,250	22,600	15,000	4,845	5,233	163.20	3.89	95.26	2.27
2.000	0.250	1.500	4.68	137,450	148,440	24,000	15,000	5,036	5,439	163.20	3.89	91.80	2.19
2.000	0.276	1.448	5.09	149,480	161,440	26,600	15,000	5,364	5,793	163.20	3.89	85.55	2.04
2.375	0.125	2.125	3.01	88,360	95,430	9,940	8,950	4,329	4,675	230.14	5.48	184.24	4.39
2.375	0.134	2.107	3.21	94,340	101,890	10,690	9,620	4,605	4,974	230.14	5.48	181.13	4.31
2.375	0.145	2.085	3.46	101,580	109,710	11,620	10,460	4,934	5,329	230.14	5.48	177.37	4.22
2.375	0.156	2.063	3.71	108,750	117,450	12,550	11,300	5,253	5,673	230.14	5.48	173.64	4.13
2.375	0.175	2.025	4.12	120,950	130,630	14,150	12,740	5,780	6,242	230.14	5.48	167.30	3.98
2.375	0.190	1.995	4.44	130,420	140,860	15,160	13,640	6,098	6,586	230.14	5.48	162.38	3.87
2.375	0.204	1.967	4.74	139,140	150,270	16,340	14,710	6,455	6,971	230.14	5.48	157.86	3.76
2.375	0.224	1.927	5.16	151,370	163,480	18,020	15,000	6,939	7,494	230.14	5.48	151.50	3.61
2.375	0.236	1.903	5.40	158,590	171,280	19,030	15,000	7,216	7,793	230.14	5.48	147.75	3.52
2.375	0.250	1.875	5.69	166,900	180,250	20,210	15,000	7,526	8,128	230.14	5.48	143.44	3.42
2.375	0.276	1.823	6.20	182,000	196,560	22,400	15,000	8,066	8,711	230.14	5.48	135.59	3.23
2.625	0.134	2.357	3.57	104,860	113,250	9,680	8,710	5,714	6,171	281.14	6.69	226.66	5.40
2.625	0.145	2.335	3.85	112,970	122,010	10,510	9,460	6,130	6,621	281.14	6.69	222.45	5.30
2.625	0.156	2.313	4.12	121,000	130,680	11,350	10,220	6,535	7,058	281.14	6.69	218.28	5.20
2.625	0.175	2.275	4.59	134,700	145,470	12,800	11,520	7,207	7,784	281.14	6.69	211.16	5.03
2.625	0.190	2.245	4.95	145,350	156,970	13,710	12,340	7,615	8,224	281.14	6.69	205.63	4.90
2.625	0.204	2.217	5.29	155,160	167,570	14,780	13,300	8,075	8,721	281.14	6.69	200.53	4.77
2.625	0.224	2.177	5.76	168,960	182,480	16,300	14,670	8,702	9,399	281.14	6.69	193.36	4.60
2.625	0.236	2.153	6.04	177,120	191,290	17,220	15,000	9,063	9,788	281.14	6.69	189.12	4.50
2.625	0.250	2.125	6.36	186,530	201,460	18,290	15,000	9,468	10,226	281.14	6.69	184.24	4.39
2.625	0.276	2.073	6.94	203,680	219,970	20,270	15,000	10,181	10,995	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	124,360	134,310	9,600	8,640	7,456	8,053	337.24	8.03	272.63	6.49
2.875	0.156	2.563	4.54	133,260	143,920	10,370	9,330	7,958	8,594	337.24	8.03	268.01	6.38
2.875	0.175	2.525	5.06	148,440	160,320	11,690	10,520	8,794	9,497	337.24	8.03	260.12	6.19
2.875	0.190	2.495	5.46	160,270	173,090	12,520	11,270	9,303	10,047	337.24	8.03	253.98	6.05
2.875	0.204	2.467	5.83	171,180	184,880	13,500	12,150	9,878	10,669	337.24	8.03	248.31	5.91
2.875	0.224	2.427	6.36	186,560	201,480	14,890	13,400	10,668	11,521	337.24	8.03	240.32	5.72
2.875	0.236	2.403	6.67	195,660	211,310	15,720	14,150	11,123	12,013	337.24	8.03	235.60	5.61
2.875	0.250	2.375	7.03	206,170	222,660	16,700	15,000	11,638	12,569	337.24	8.03	230.14	5.48
2.875	0.276	2.323	7.68	225,350	243,380	18,500	15,000	12,546	13,550	337.24	8.03	220.17	5.24