

DURACOIL 120

Coiled Tubing Technical Data

MECHANICAL PROPERTIES

Specified Min Yield Strength (SMYS) 120,000 psi

Specified Min Tensile Strength (SMTS) 128,000 psi

Max Hardness 33 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	Gallons2	Barrels3
1.250	0.109	1.032	1.33	46,890	50,010	19,970	15,000	1,145	1,221	63.75	1.52	43.45	1.03
1.250	0.116	1.018	1.41	49,590	52,900	21,310	15,000	1,201	1,281	63.75	1.52	42.28	1.01
1.250	0.125	1.000	1.51	53,010	56,550	22,660	15,000	1,255	1,339	63.75	1.52	40.80	0.97
1.250	0.134	0.982	1.60	56,380	60,140	24,380	15,000	1,322	1,410	63.75	1.52	39.34	0.94
1.250	0.145	0.960	1.72	60,400	64,430	26,500	15,000	1,398	1,491	63.75	1.52	37.60	0.90
1.250	0.156	0.938	1.83	64,340	68,630	28,610	15,000	1,469	1,567	63.75	1.52	35.90	0.85
1.250	0.175	0.900	2.01	70,920	75,650	32,260	15,000	1,581	1,687	63.75	1.52	33.05	0.79
1.250	0.190	0.870	2.16	75,930	80,990	34,560	15,000	1,645	1,755	63.75	1.52	30.88	0.74
1.250	0.204	0.842	2.28	80,440	85,810	37,250	15,000	1,713	1,828	63.75	1.52	28.93	0.69
1.500	0.109	1.282	1.62	57,160	60,970	16,640	14,980	1,720	1,835	91.80	2.19	67.06	1.60
1.500	0.116	1.268	1.72	60,520	64,560	17,760	15,000	1,810	1,931	91.80	2.19	65.60	1.56
1.500	0.125	1.250	1.84	64,800	69,120	18,880	15,000	1,897	2,023	91.80	2.19	63.75	1.52
1.500	0.134	1.232	1.96	69,010	73,610	20,320	15,000	2,004	2,138	91.80	2.19	61.93	1.47
1.500	0.145	1.210	2.10	74,070	79,010	22,080	15,000	2,130	2,272	91.80	2.19	59.74	1.42
1.500	0.156	1.188	2.24	79,040	84,310	23,840	15,000	2,248	2,398	91.80	2.19	57.58	1.37
1.500	0.175	1.150	2.48	87,420	93,240	26,880	15,000	2,439	2,601	91.80	2.19	53.96	1.28
1.500	0.190	1.120	2.66	93,830	100,090	28,800	15,000	2,549	2,719	91.80	2.19	51.18	1.22
1.500	0.204	1.092	2.83	99,670	106,320	31,040	15,000	2,670	2,848	91.80	2.19	48.65	1.16
1.500	0.224	1.052	3.06	107,750	114,940	34,240	15,000	2,828	3,016	91.80	2.19	45.15	1.08
1.750	0.109	1.532	1.91	67,430	71,930	14,260	12,830	2,413	2,574	124.95	2.97	95.76	2.28
1.750	0.116	1.518	2.03	71,460	76,220	15,220	13,700	2,544	2,714	124.95	2.97	94.02	2.24
1.750	0.125	1.500	2.17	76,580	81,680	16,180	14,560	2,672	2,850	124.95	2.97	91.80	2.19
1.750	0.134	1.482	2.32	81,640	87,080	17,420	15,000	2,831	3,020	124.95	2.97	89.61	2.13
1.750	0.145	1.460	2.49	87,740	93,580	18,930	15,000	3,017	3,219	124.95	2.97	86.97	2.07
1.750	0.156	1.438	2.66	93,740	99,990	20,430	15,000	3,196	3,409	124.95	2.97	84.37	2.01
1.750	0.175	1.400	2.95	103,910	110,840	23,040	15,000	3,486	3,718	124.95	2.97	79.97	1.90
1.750	0.190	1.370	3.17	111,740	119,190	24,690	15,000	3,657	3,901	124.95	2.97	76.58	1.82
1.750	0.204	1.342	3.38	118,900	126,820	26,610	15,000	3,846	4,103	124.95	2.97	73.48	1.75
1.750	0.224	1.302	3.66	128,860	137,460	29,350	15,000	4,097	4,370	124.95	2.97	69.16	1.65
1.750	0.236	1.278	3.83	134,700	143,680	30,990	15,000	4,237	4,519	124.95	2.97	66.64	1.59
1.750	0.250	1.250	4.01	141,370	150,800	32,910	15,000	4,390	4,683	124.95	2.97	63.75	1.52

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
2.000	0.109	1.782	2.21	77,710	82,890	12,480	11,230	3,224	3,439	163.20	3.89	129.56	3.08
2.000	0.116	1.768	2.34	82,390	87,880	13,320	11,990	3,404	3,631	163.20	3.89	127.53	3.04
2.000	0.125	1.750	2.51	88,360	94,250	14,160	12,740	3,581	3,819	163.20	3.89	124.95	2.97
2.000	0.134	1.732	2.68	94,260	100,550	15,240	13,720	3,801	4,055	163.20	3.89	122.39	2.91
2.000	0.145	1.710	2.88	101,400	108,160	16,560	14,900	4,062	4,332	163.20	3.89	119.30	2.84
2.000	0.156	1.688	3.08	108,450	115,680	17,880	15,000	4,312	4,600	163.20	3.89	116.25	2.77
2.000	0.175	1.650	3.42	120,400	128,430	20,160	15,000	4,723	5,038	163.20	3.89	111.08	2.64
2.000	0.190	1.620	3.68	129,650	138,290	21,600	15,000	4,968	5,300	163.20	3.89	107.08	2.55
2.000	0.204	1.592	3.92	138,120	147,330	23,280	15,000	5,241	5,591	163.20	3.89	103.41	2.46
2.000	0.224	1.552	4.26	149,980	159,970	25,680	15,000	5,607	5,981	163.20	3.89	98.27	2.34
2.000	0.236	1.528	4.46	156,940	167,410	27,120	15,000	5,814	6,202	163.20	3.89	95.26	2.27
2.000	0.250	1.500	4.68	164,930	175,930	28,800	15,000	6,043	6,446	163.20	3.89	91.80	2.19
2.000	0.276	1.448	5.09	179,380	191,340	31,920	15,000	6,436	6,865	163.20	3.89	85.55	2.04
2.375	0.125	2.125	3.01	106,030	113,100	11,920	10,730	5,194	5,541	230.14	5.48	184.24	4.39
2.375	0.134	2.107	3.21	113,210	120,760	12,830	11,550	5,527	5,895	230.14	5.48	181.13	4.31
2.375	0.145	2.085	3.46	121,900	130,030	13,950	12,560	5,921	6,316	230.14	5.48	177.37	4.22
2.375	0.156	2.063	3.71	130,500	139,200	15,060	13,550	6,303	6,724	230.14	5.48	173.64	4.13
2.375	0.175	2.025	4.12	145,140	154,820	16,980	15,000	6,936	7,398	230.14	5.48	167.30	3.98
2.375	0.190	1.995	4.44	156,510	166,940	18,190	15,000	7,317	7,805	230.14	5.48	162.38	3.87
2.375	0.204	1.967	4.74	166,960	178,090	19,600	15,000	7,746	8,262	230.14	5.48	157.86	3.76
2.375	0.224	1.927	5.16	181,640	193,750	21,630	15,000	8,327	8,882	230.14	5.48	151.50	3.61
2.375	0.236	1.903	5.40	190,310	202,990	22,840	15,000	8,659	9,236	230.14	5.48	147.75	3.52
2.375	0.250	1.875	5.69	200,280	213,630	24,250	15,000	9,031	9,633	230.14	5.48	143.44	3.42
2.375	0.276	1.823	6.20	218,400	232,960	26,880	15,000	9,679	10,325	230.14	5.48	135.59	3.23
2.625	0.134	2.357	3.57	125,840	134,230	11,610	10,450	6,857	7,314	281.14	6.69	226.66	5.40
2.625	0.145	2.335	3.85	135,570	144,600	12,620	11,360	7,356	7,847	281.14	6.69	222.45	5.30
2.625	0.156	2.313	4.12	145,200	154,880	13,620	12,260	7,842	8,365	281.14	6.69	218.28	5.20
2.625	0.175	2.275	4.59	161,640	172,410	15,360	13,820	8,649	9,225	281.14	6.69	211.16	5.03
2.625	0.190	2.245	4.95	174,420	186,040	16,460	14,810	9,138	9,748	281.14	6.69	205.63	4.90
2.625	0.204	2.217	5.29	186,190	198,600	17,740	15,000	9,690	10,336	281.14	6.69	200.53	4.77
2.625	0.224	2.177	5.76	202,760	216,270	19,570	15,000	10,443	11,139	281.14	6.69	193.36	4.60
2.625	0.236	2.153	6.04	212,550	226,720	20,660	15,000	10,875	11,600	281.14	6.69	189.12	4.50
2.625	0.250	2.125	6.36	223,840	238,760	21,940	15,000	11,362	12,120	281.14	6.69	184.24	4.39
2.625	0.276	2.073	6.94	244,410	260,710	24,320	15,000	12,217	13,031	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	149,230	159,180	11,520	10,370	8,948	9,544	337.24	8.03	272.63	6.49
2.875	0.156	2.563	4.54	159,910	170,570	12,440	11,200	9,549	10,186	337.24	8.03	268.01	6.38
2.875	0.175	2.525	5.06	178,130	190,000	14,020	12,620	10,552	11,256	337.24	8.03	260.12	6.19
2.875	0.190	2.495	5.46	192,320	205,140	15,030	13,530	11,163	11,907	337.24	8.03	253.98	6.05
2.875	0.204	2.467	5.83	205,420	219,110	16,190	14,570	11,854	12,644	337.24	8.03	248.31	5.91
2.875	0.224	2.427	6.36	223,870	238,790	17,860	15,000	12,801	13,655	337.24	8.03	240.32	5.72
2.875	0.236	2.403	6.67	234,790	250,440	18,870	15,000	13,348	14,238	337.24	8.03	235.60	5.61
2.875	0.250	2.375	7.03	247,400	263,890	20,030	15,000	13,965	14,896	337.24	8.03	230.14	5.48
2.875	0.276	2.323	7.68	270,430	288,450	22,210	15,000	15,056	16,059	337.24	8.03	220.17	5.24