

DYWIDAG **THREADBARS** - TECHNICAL DATA [IMPERIAL UNITS]

April 16th, 2018, DSI Surrey, BC

STEEL GRADE	Nominal Bar Diameter		Max. Bar ϕ Across Ribs	Nominal Cross Section Area A_s	Yield Load $P_y = f_y A_s$	Ultimate Load $P_u = f_u A_s$	Nominal Weight	Mill Length	Direction of Thread
	in	in							
160 ksi (f_u) Hot-Rolled Threadbar Form-Ties, Post-Tensioning, Ground Anchors	5/8	5/8"	0.69	0.27	35.8	43.8	0.97	19	R
	7/8	7/8"	0.91	0.49	64.1	78.4	1.75	38.7	R
150 ksi (f_u) Prestressing Steel per ASTM A722 Hot-Rolled Threadbar PT Ground Anchors Post-Tensioning * Cold-Rolled Threadbar	1	1"	1.20	0.85	102.8	127.5	3.01	60	R
	1 1/4	1 1/4"	1.44	1.25	151.2	187.5	4.39	60	R
	1 3/8	1 3/8"	1.63	1.58	191.2	237.0	5.56	60	R
	1 3/4	1 3/4"	2.08	2.58	310.0	387.0	9.37	60	R
	* 2 1/4	2 1/4"	2.48	4.08	490.0	612.0	14.55	45	R
	* 2 1/2	2 1/2"	2.79	5.16	619.2	774.0	18.20	45	R
* 3	3"	3.15	6.85	822.0	1028.0	24.09	45	R	
75 ksi, ** 80 ksi (f_y) Reinforcing Steel per ASTM A615, CSA G30.18 Hot-Rolled Threadbar Tie Rods Hanging Rods Micropiles (GEWI-Piles) Anchor Bolts Concrete Reinforcing Ground Anchors Seismic Anchors Rock Bolts Soil Nailing Precast Connections * Cold-Rolled Threadbar	3/4	#6	0.86	0.44	33.0	44.0	1.50	48	L
	7/8	#7	0.99	0.60	45.0	60.0	2.04	60	L
	1	#8	1.12	0.79	59.3	79.0	2.67	60	L
	1 1/8	#9	1.26	1.00	75.0	100.0	3.40	60	L
	1 1/4	#10	1.43	1.27	95.3	127.0	4.30	60	L
	1 3/8	#11	1.61	1.56	117.0	156.0	5.31	60	L
	** 1 3/4	#14	1.86	2.25	180.0	236.2	7.65	60	R
	** 2 1/4	#18	2.50	4.00	320.0	420.0	13.60	60	R
	** 2 1/2	#20	2.72	4.91	393.0	515.6	16.70	60	L
	* 3	#24	3.18	7.06	529.5	706.0	24.09	45	L
	* 3 1/2	#28	3.68	9.62	721.5	962.0	32.79	45	L
100 ksi (f_y) Reinforcing Steel per ASTM A615, CSA G30.18 Hot-Rolled Threadbar Tie Rods Hanging Rods Micropiles (GEWI-Piles) Anchor Bolts Concrete Reinforcing Ground Anchors Seismic Anchors Rock Bolts Soil Nailing Precast Connections	3/4	#6	0.86	0.44	44.0	52.8	1.50	48	L
	7/8	#7	0.99	0.60	60.0	72.0	2.04	60	L
	1	#8	1.12	0.79	79.0	94.8	2.67	60	L
	1 1/8	#9	1.26	1.00	100.0	120.0	3.40	60	L
	1 1/4	#10	1.43	1.27	127.0	152.2	4.30	60	L
	1 3/8	#11	1.61	1.56	156.0	187.0	5.31	60	L
	1 3/4	#14	1.86	2.25	225.0	270.0	7.65	60	R
	2 1/4	#18	2.50	4.00	400.0	480.0	13.60	60	R
	2 1/2	#20	2.72	4.91	491.0	589.2	16.70	60	L
73 ksi (f_y) Tempcore Threadbar Equivalent to ASTM A706 Hot-Rolled Threadbar Charpy V-Notch Toughness: Min. 20 ft-lbs @ -40°F Anchors & Anchor Bolts Reinforcing & Restrainers Cold Temperature Applications	20T	20 ϕ	0.906	0.49	35.3	38.9	1.66	38.7	L
	25T	25 ϕ	1.098	0.76	55.3	60.7	2.58	38.7	L
	28T	28 ϕ	1.228	0.95	69.2	76.2	3.24	38.7	L
	32T	32 ϕ	1.406	1.25	90.4	99.3	4.23	38.7	L
	40T	40 ϕ	1.760	1.95	141.2	155.3	6.62	38.7	L
	50T	50 ϕ	2.189	3.00	220.8	242.8	10.34	38.7	L

Approximate Modulus of Elasticity: E=29,700 ksi

Maximum temporary stress for ground anchors: 80% of ultimate load for Grade 150 & 160 ksi bars

90% of yield load for Grade 75, 80 and 100 ksi bars

