

TAPER THREADED GRIP-TWIST® SYSTEM TEST DATA CONVERSION - 15M AND 20M (GRADE 400)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar area in ²	Max Load lb	Max Stress psi	Developed Stress %fy ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area mm ²	Max Load kN	Equivalent Max Stress CSA Gr 400 N/mm ²	Equivalent Developed Stress %fy CSA Gr 400
5T3688	5A	*Black	No. 5	0.31	29,830	96,226	160%	15M	200	132.7	663	166%
5T5486	5A	Black	No. 5	0.31	34,290	110,613	184%	15M	200	152.5	763	191%
	5B		No. 5	0.31	34,490	111,258	185%	15M	200	153.4	767	192%
5T5551	5A	Black	No. 5	0.31	33,600	108,387	181%	15M	200	149.5	747	187%
	5B		No. 5	0.31	33,300	107,419	179%	15M	200	148.1	741	185%
5T7986	5A	Black	No. 5	0.31	33,380	107,677	179%	15M	200	148.5	742	186%
	5B		No. 5	0.31	32,670	105,387	176%	15M	200	145.3	727	182%
5T8798	5A	Black	No. 5	0.31	32,280	104,129	174%	15M	200	143.6	718	179%
	5B		No. 5	0.31	32,860	106,000	177%	15M	200	146.2	731	183%
6T580	6A	*Black	No. 6	0.44	42,453	96,484	161%	20M	300	188.8	629	157%
	6B		No. 6	0.44	43,410	98,659	164%	20M	300	193.1	644	161%
6T5372	6A	Black	No. 6	0.44	49,010	111,386	186%	20M	300	218.0	727	182%
	6B		No. 6	0.44	48,700	110,682	184%	20M	300	216.6	722	181%
6T5806	6A	Black	No. 6	0.44	46,550	105,795	176%	20M	300	207.1	690	173%
	6B		No. 6	0.44	46,650	106,023	177%	20M	300	207.5	692	173%
6T5866	6A	Black	No. 6	0.44	45,630	103,705	173%	20M	300	203.0	677	169%
	6B		No. 6	0.44	45,130	102,568	171%	20M	300	200.7	669	167%

NOTES

Test results are from routine testing of each heat lot of arriving Taper Threaded Grip-Twist material, per Barsplice Products, Inc. ISO Quality System. Reinforcing Bars, per ASTM A615 (or *A706) Grade 60, have a specified yield, fy = 60,000 psi (420 N/mm²). See Lab reports for stress versus displacement curves (stress versus cross-head position). Load rates per ASTM A 370.
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TAPER THREADED GRIP-TWIST® SYSTEM TEST DATA CONVERSION - 25M AND 30M (GRADE 400)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar area in ²	Max Load lb	Max Stress psi	Developed Stress %fy ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area mm ²	Max Load kN	Equivalent Max Stress CSA Gr 400 N/mm ²	Equivalent Developed Stress %fy CSA Gr 400
8T398	8A	*Black	No. 8	0.79	78,506	99,375	166%	25M	500	349.2	698	175%
	8B		No. 8	0.79	73,506	93,045	155%	25M	500	327.0	654	163%
8T3329	8A	Black	No. 8	0.79	85,620	108,380	181%	25M	500	380.8	762	190%
	8B		No. 8	0.79	86,120	109,013	182%	25M	500	383.1	766	192%
8T3542	8A	Black	No. 8	0.79	88,505	112,032	187%	25M	500	393.7	787	197%
	8B		No. 8	0.79	88,356	111,843	186%	25M	500	393.0	786	197%
8T3658	8A	Black	No. 8	0.79	90,498	114,554	191%	25M	500	402.5	805	201%
	8B		No. 8	0.79	89,310	113,050	188%	25M	500	397.2	794	199%
9T1842	9A	Black	No. 9	1.00	107,630	107,630	179%	30M	700	478.7	684	171%
	9B		No. 9	1.00	105,750	105,750	176%	30M	700	470.4	672	168%
9T2030	9A	Black	No. 9	1.00	111,547	111,547	186%	30M	700	496.2	709	177%
	9B		No. 9	1.00	108,762	108,762	181%	30M	700	483.8	691	173%
9T2257	9A	Black	No. 9	1.00	109,386	109,386	182%	30M	700	486.5	695	174%
	9B		No. 9	1.00	110,050	110,050	183%	30M	700	489.5	699	175%
9T2390	9A	Black	No. 9	1.00	114,030	114,030	190%	30M	700	507.2	725	181%
	9B		No. 9	1.00	113,811	113,811	190%	30M	700	506.2	723	181%

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TAPER THREADED GRIP-TWIST® SYSTEM TEST DATA CONVERSION - 35M AND 45M (GRADE 400)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar area in ²	Max Load lb	Max Stress psi	Developed Stress %fy ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area mm ²	Max Load kN	Equivalent Max Stress CSA Gr 400 N/mm ²	Equivalent Developed Stress %fy CSA Gr 400
11T548	11A	*Black	No. 11	1.56	147,356	94,459	157%	35M	1000	655.4	655	164%
	11B		No. 11	1.56	146,880	94,154	157%	35M	1000	653.3	653	163%
11T3858	11A	Black	No. 11	1.56	163,410	104,750	175%	35M	1000	726.8	727	182%
	11B		No. 11	1.56	164,220	105,269	175%	35M	1000	730.4	730	183%
11T4143	11A	Black	No. 11	1.56	172,488	110,569	184%	35M	1000	767.2	767	192%
	11B		No. 11	1.56	173,725	111,362	186%	35M	1000	772.7	773	193%
11T4148	11A	Black	No. 11	1.56	178,043	114,130	190%	35M	1000	791.9	792	198%
	11B		No. 11	1.56	174,736	112,010	187%	35M	1000	777.2	777	194%
14T140	14A	*Black	No. 14	2.25	214,261	95,227	159%	45M	1500	953.0	635	159%
	14B		No. 14	2.25	213,361	94,827	158%	45M	1500	949.0	633	158%
14T881	14A	Black	No. 14	2.25	252,450	112,200	187%	45M	1500	1122.9	749	187%
	14B		No. 14	2.25	250,731	111,436	186%	45M	1500	1115.3	744	186%
14T1354	14A	Black	No. 14	2.25	234,812	104,361	174%	45M	1500	1044.4	696	174%
	14B		No. 14	2.25	236,324	105,033	175%	45M	1500	1051.2	701	175%
14T1407	14A	Black	No. 14	2.25	229,727	102,101	170%	45M	1500	1021.8	681	170%
	14B		No. 14	2.25	232,110	103,160	172%	45M	1500	1032.4	688	172%

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TAPER THREADED GRIP-TWIST ® SYSTEM TEST DATA CONVERSION - 55M (GRADE 400)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar area in ²	Max Load lb	Max Stress psi	Developed Stress %fy ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area mm ²	Max Load kN	Equivalent Max Stress CSA Gr 400 N/mm ²	Equivalent Developed Stress %fy CSA Gr 400
18T151	18A	*Black	No. 18	4.00	396,792	99,198	165%	55M	2500	1764.9	706	176%
18T471	18A	*Black	No. 18	4.00	408,140	102,035	170%	55M	2500	1815.4	726	182%
18T663	18A	Black	No. 18	4.00	427,020	106,755	178%	55M	2500	1899.4	760	190%
	18B		No. 18	4.00	428,040	107,010	178%	55M	2500	1903.9	762	190%
18T701	18A	Black	No. 18	4.00	430,968	107,742	180%	55M	2500	1916.9	767	192%
	18B		No. 18	4.00	435,180	108,795	181%	55M	2500	1935.7	774	194%
18T780	18A	Black	No. 18	4.00	410,144	102,536	171%	55M	2500	1824.3	730	182%
	18B		No. 18	4.00	407,748	101,937	170%	55M	2500	1813.7	725	181%
18T788	18A	Black	No. 18	4.00	443,620	110,905	185%	55M	2500	1973.2	789	197%
	18B		No. 18	4.00	438,572	109,643	183%	55M	2500	1950.8	780	195%

NOTES

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