

### BPI® BARGRIP XL SYSTEM TEST DATA CONVERSION - 15M & 20M (GRADE 400)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar Area (in <sup>2</sup> )	Max Load (lb)	Max Stress (psi)	Developed Stress % <i>f<sub>y</sub></i> ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area (mm <sup>2</sup> )	Max Load (kN)	Equivalent Max Stress CSA Gr 400 (N/mm <sup>2</sup> )	Equivalent Developed Stress % <i>f<sub>y</sub></i> CSA Gr 400
5T4339	5A	Black	<b>No. 5</b>	0.31	33,430	107,839	<b>180%</b>	<b>15M</b>	200	148.7	743	<b>186%</b>
	5B		<b>No. 5</b>	0.31	33,630	108,484	<b>181%</b>	<b>15M</b>	200	149.6	748	<b>187%</b>
5T4511	5A	Black	<b>No. 5</b>	0.31	36,570	117,968	<b>197%</b>	<b>15M</b>	200	162.7	813	<b>203%</b>
	5B		<b>No. 5</b>	0.31	37,190	119,968	<b>200%</b>	<b>15M</b>	200	165.4	827	<b>207%</b>
5T5460	5A	Black	<b>No. 5</b>	0.31	34,320	110,710	<b>185%</b>	<b>15M</b>	200	152.7	763	<b>191%</b>
	5B		<b>No. 5</b>	0.31	34,480	111,226	<b>185%</b>	<b>15M</b>	200	153.4	767	<b>192%</b>
5T7886	5A	Black	<b>No. 5</b>	0.31	33,180	107,032	<b>178%</b>	<b>15M</b>	200	147.6	738	<b>184%</b>
	5B		<b>No. 5</b>	0.31	33,100	106,774	<b>178%</b>	<b>15M</b>	200	147.2	736	<b>184%</b>
6T830	6A	Black	<b>No. 6</b>	0.44	49,651	112,844	<b>188%</b>	<b>20M</b>	300	220.8	736	<b>184%</b>
	6B		<b>No. 6</b>	0.44	49,946	113,513	<b>189%</b>	<b>20M</b>	300	222.2	741	<b>185%</b>
6T2003	6A	Black	<b>No. 6</b>	0.44	50,850	115,568	<b>193%</b>	<b>20M</b>	300	226.2	754	<b>188%</b>
	6B		<b>No. 6</b>	0.44	49,350	112,159	<b>187%</b>	<b>20M</b>	300	219.5	732	<b>183%</b>
6T3546	6A	Black	<b>No. 6</b>	0.44	52,080	118,364	<b>197%</b>	<b>20M</b>	300	231.7	772	<b>193%</b>
	6B		<b>No. 6</b>	0.44	51,820	117,773	<b>196%</b>	<b>20M</b>	300	230.5	768	<b>192%</b>
6T4288	6A	Black	<b>No. 6</b>	0.44	48,310	109,795	<b>183%</b>	<b>20M</b>	300	214.9	716	<b>179%</b>
	6B		<b>No. 6</b>	0.44	49,080	111,545	<b>186%</b>	<b>20M</b>	300	218.3	728	<b>182%</b>

#### NOTES

All splices meet Type 2 requirement of ACI 318 Section 18 (100% *f<sub>u</sub>*) Grade 60 bar, and CSA A23.3 Clause 12.14.3.4 requirement (120% *f<sub>y</sub>*) Grade 400 bar. Results shown are from routine testing of various heat lots of completed coupler assemblies, per Barsplice Products, Inc. ISO 9001 Quality System. Conducted on reinforcing bars per ASTM A615 (or \*A706) Grade 60, with a specified yield, *f<sub>y</sub>* = 60,000 psi (420 N/mm<sup>2</sup>). Tests performed in accordance with ASTM A1034, Section 10.3, Monotonic Tension Tests, using load rates per ASTM A370. See Lab reports for stress versus displacement curves (stress versus cross-head position). ASTM = American Society for Testing and Materials, CSA = Canadian Standards Association

### BPI® BARGRIP XL SYSTEM TEST DATA CONVERSION - 25M & 30M (GRADE 400)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar Area (in <sup>2</sup> )	Max Load (lb)	Max Stress (psi)	Developed Stress % <i>f<sub>y</sub></i> ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area (mm <sup>2</sup> )	Max Load (kN)	Equivalent Max Stress CSA Gr 400 (N/mm <sup>2</sup> )	Equivalent Developed Stress % <i>f<sub>y</sub></i> CSA Gr 400
8T2043	8A	Black	<b>No. 8</b>	0.79	89,990	113,911	<b>190%</b>	<b>25M</b>	500	400.3	801	<b>200%</b>
	8B		<b>No. 8</b>	0.79	86,940	110,051	<b>183%</b>	<b>25M</b>	500	386.7	773	<b>193%</b>
8T3398	8A	Black	<b>No. 8</b>	0.79	85,885	108,715	<b>181%</b>	<b>25M</b>	500	382.0	764	<b>191%</b>
	8B		<b>No. 8</b>	0.79	86,151	109,052	<b>182%</b>	<b>25M</b>	500	383.2	766	<b>192%</b>
8T3549	8A	Black	<b>No. 8</b>	0.79	82,090	103,912	<b>173%</b>	<b>25M</b>	500	365.1	730	<b>183%</b>
	8B		<b>No. 8</b>	0.79	83,324	105,473	<b>176%</b>	<b>25M</b>	500	370.6	741	<b>185%</b>
8T3666	8A	Black	<b>No. 8</b>	0.79	88,802	112,407	<b>187%</b>	<b>25M</b>	500	395.0	790	<b>197%</b>
	8B		<b>No. 8</b>	0.79	90,095	114,044	<b>190%</b>	<b>25M</b>	500	400.7	801	<b>200%</b>
9T317	9A	Black	<b>No. 9</b>	1.00	107,986	107,986	<b>180%</b>	<b>30M</b>	700	480.3	686	<b>172%</b>
9T422*	9A	Black	<b>No. 9</b>	1.00	94,064	94,064	<b>157%</b>	<b>30M</b>	700	418.4	598	<b>149%</b>
9T423*	9A	Black	<b>No. 9</b>	1.00	94,227	94,227	<b>157%</b>	<b>30M</b>	700	419.1	599	<b>150%</b>
9T1859	9A	Black	<b>No. 9</b>	1.00	110,780	110,780	<b>185%</b>	<b>30M</b>	700	492.7	704	<b>176%</b>
	9B		<b>No. 9</b>	1.00	111,420	111,420	<b>186%</b>	<b>30M</b>	700	495.6	708	<b>177%</b>
9T2256	9A	Black	<b>No. 9</b>	1.00	108,695	108,695	<b>181%</b>	<b>30M</b>	700	483.5	691	<b>173%</b>
	9B		<b>No. 9</b>	1.00	109,165	109,165	<b>182%</b>	<b>30M</b>	700	485.6	694	<b>173%</b>
9T2389	9A	Black	<b>No. 9</b>	1.00	112,885	112,885	<b>188%</b>	<b>30M</b>	700	502.1	717	<b>179%</b>
	9B		<b>No. 9</b>	1.00	113,516	113,516	<b>189%</b>	<b>30M</b>	700	504.9	721	<b>180%</b>

**NOTES**

All splices meet Type 2 requirement of ACI 318 Section 18 (100% *f<sub>u</sub>*) Grade 60 bar, and CSA A23.3 Clause 12.14.3.4 requirement (120% *f<sub>y</sub>*) Grade 400 bar. Results shown are from routine testing of various heat lots of completed coupler assemblies, per Barsplice Products, Inc. ISO 9001 Quality System. Conducted on reinforcing bars per ASTM A615 (or \*A706) Grade 60, with a specified yield, *f<sub>y</sub>* = 60,000 psi (420 N/mm<sup>2</sup>). Tests performed in accordance with ASTM A1034, Section 10.3, Monotonic Tension Tests, using load rates per ASTM A370. See Lab reports for stress versus displacement curves (stress versus cross-head position). ASTM = American Society for Testing and Materials, CSA = Canadian Standards Association

## BPI® BARGRIP XL SYSTEM TEST DATA CONVERSION - 35M & 45M (GRADE 400)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar Area (in <sup>2</sup> )	Max Load (lb)	Max Stress (psi)	Developed Stress % <i>f<sub>y</sub></i> ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area (mm <sup>2</sup> )	Max Load (kN)	Equivalent Max Stress CSA Gr 400 (N/mm <sup>2</sup> )	Equivalent Developed Stress % <i>f<sub>y</sub></i> CSA Gr 400
11T560 <i>*A706</i>	11A	Black	No. 11	1.56	144,821	92,834	155%	35M	1000	644.2	644	161%
	11B		No. 11	1.56	145,411	93,212	155%	35M	1000	646.8	647	162%
11T2730	11A	Black	No. 11	1.56	167,421	107,321	179%	35M	1000	744.7	745	186%
11T3766	11A	Black	No. 11	1.56	165,616	106,164	177%	35M	1000	736.7	737	184%
	11B		No. 11	1.56	165,159	105,871	176%	35M	1000	734.6	735	184%
11T3855	11A	Black	No. 11	1.56	170,756	109,459	182%	35M	1000	759.5	760	190%
	11B		No. 11	1.56	169,814	108,855	181%	35M	1000	755.3	755	189%
11T4034	11A	Black	No. 11	1.56	174,143	111,630	186%	35M	1000	774.6	775	194%
	11B		No. 11	1.56	171,857	110,165	184%	35M	1000	764.4	764	191%
14T256	14A	Black	No. 14	2.25	237,830	105,702	176%	45M	1500	1057.9	705	176%
	14B		No. 14	2.25	236,790	105,240	175%	45M	1500	1053.2	702	176%
14T285 <i>*A706</i>	14A	Black	No. 14	2.25	216,749	96,333	161%	45M	1500	964.1	643	161%
	14B		No. 14	2.25	217,440	96,640	161%	45M	1500	967.2	645	161%
14T455	14A	Black	No. 14	2.25	249,111	110,716	185%	45M	1500	1108.0	739	185%
14T1002	14A	Black	No. 14	2.25	230,589	102,484	171%	45M	1500	1025.7	684	171%
	14B		No. 14	2.25	232,040	103,129	172%	45M	1500	1032.1	688	172%

### NOTES

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