

**BPI® BARGRIP SYSTEM STATIC TEST DATA CONVERSION - 15M, 20M AND 25M**

Specimen	ASTM Bar Size Designation	ASTM Bar area in <sup>2</sup>	Max Load lb	Max Stress psi	Developed Stress %fy 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 %fy CSA Gr 400
5BS-1-SB	No. 5	0.31	33,000	106,452	177%	15M	200	146.8	734	183%
5BS-2-SB	No. 5	0.31	34,100	110,000	183%	15M	200	151.7	758	190%
5BS-4-SC	No. 5	0.31	31,700	102,258	170%	15M	200	141.0	705	176%
5BS-5-SC	No. 5	0.31	32,800	105,806	176%	15M	200	145.9	729	182%
5BS-7-SA	No. 5	0.31	35,800	115,484	192%	15M	200	159.2	796	199%
5BS-8-SA	No. 5	0.31	36,700	118,387	197%	15M	200	163.2	816	204%
5U-10-SB	No. 5	0.31	33,800	109,032	182%	15M	200	150.3	752	188%
5U-11-SC	No. 5	0.31	32,800	105,806	176%	15M	200	145.9	729	182%
5U-12-SA	No. 5	0.31	33,100	106,774	178%	15M	200	147.2	736	184%
6BS-1-SB	No. 6	0.44	49,900	113,409	189%	20M	300	222.0	740	185%
6BS-2-SB	No. 6	0.44	50,000	113,636	189%	20M	300	222.4	741	185%
6BS-4-SC	No. 6	0.44	45,400	103,182	172%	20M	300	201.9	673	168%
6BS-5-SC	No. 6	0.44	45,800	104,091	173%	20M	300	203.7	679	170%
6BS-7-SA	No. 6	0.44	48,700	110,682	184%	20M	300	216.6	722	181%
6BS-8-SA	No. 6	0.44	48,000	109,091	182%	20M	300	213.5	712	178%
6U-10-SB	No. 6	0.44	49,900	113,409	189%	20M	300	222.0	740	185%
6U-11-SC	No. 6	0.44	45,300	102,955	172%	20M	300	201.5	672	168%
6U-12-SA	No. 6	0.44	48,200	109,545	183%	20M	300	214.4	715	179%
8BS-1-SB	No. 8	0.79	84,900	107,468	179%	25M	500	377.6	755	189%
8BS-2-SB	No. 8	0.79	84,100	106,456	177%	25M	500	374.1	748	187%
8BS-4-SC	No. 8	0.79	83,200	105,316	176%	25M	500	370.1	740	185%
8BS-5-SC	No. 8	0.79	83,800	106,076	177%	25M	500	372.7	745	186%
8BS-7-SA	No. 8	0.79	83,100	105,190	175%	25M	500	369.6	739	185%
8BS-8-SA	No. 8	0.79	83,100	105,190	175%	25M	500	369.6	739	185%
8U-10-SB	No. 8	0.79	84,000	106,329	177%	25M	500	373.6	747	187%
8U-11-SC	No. 8	0.79	82,500	104,430	174%	25M	500	367.0	734	183%
8U-12-SA	No. 8	0.79	82,600	104,557	174%	25M	500	367.4	735	184%

**NOTES**

Test results are from routine testing of each heat lot of arriving coupler material, per Barsplice Products, Inc. ISO Quality System. Reinforcing Bars, per ASTM A 615 Grade 60, have a specified yield, fy = 60,000 psi (420 N/mm<sup>2</sup>). See Lab reports for stress versus displacement curves (stress versus cross-head position). Load rates per ASTM A 370. Specimens marked 5U, 6U or 8U are unspliced control bars. ASTM = American Society for Testing and Materials  
CSA = Canadian Standards Association



**BPI® BARGRIP SYSTEM STATIC TEST DATA CONVERSION - 30M AND 35M**

Location of Test	ASTM Bar Size Designation	ASTM Bar area in <sup>2</sup>	Max Load lb	Max Stress psi	Developed Stress %fy 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 %fy CSA Gr 400
9BS-1-SB	<b>No. 9</b>	1.00	107,500	107,500	<b>179%</b>	<b>30M</b>	700	478.2	683	<b>171%</b>
9BS-2-SB	<b>No. 9</b>	1.00	97,300	97,300	<b>162%</b>	<b>30M</b>	700	432.8	618	<b>155%</b>
9BS-4-SC	<b>No. 9</b>	1.00	113,000	113,000	<b>188%</b>	<b>30M</b>	700	502.6	718	<b>180%</b>
9BS-5-SC	<b>No. 9</b>	1.00	112,000	112,000	<b>187%</b>	<b>30M</b>	700	498.2	712	<b>178%</b>
9BS-7-SA	<b>No. 9</b>	1.00	104,000	104,000	<b>173%</b>	<b>30M</b>	700	462.6	661	<b>165%</b>
9BS-8-SA	<b>No. 9</b>	1.00	102,500	102,500	<b>171%</b>	<b>30M</b>	700	455.9	651	<b>163%</b>
9U-10-SB	<b>No. 9</b>	1.00	110,000	110,000	<b>183%</b>	<b>30M</b>	700	489.3	699	<b>175%</b>
9U-11-SC	<b>No. 9</b>	1.00	125,000	125,000	<b>208%</b>	<b>30M</b>	700	556.0	794	<b>199%</b>
9U-12-SA	<b>No. 9</b>	1.00	101,500	101,500	<b>169%</b>	<b>30M</b>	700	451.5	645	<b>161%</b>
11BS-1-SB	<b>No. 11</b>	1.56	160,500	102,885	<b>171%</b>	<b>35M</b>	1000	713.9	714	<b>178%</b>
11BS-2-SB	<b>No. 11</b>	1.56	162,500	104,167	<b>174%</b>	<b>35M</b>	1000	722.8	723	<b>181%</b>
11BS-4-SC	<b>No. 11</b>	1.56	160,000	102,564	<b>171%</b>	<b>35M</b>	1000	711.7	712	<b>178%</b>
11BS-5-SC	<b>No. 11</b>	1.56	160,300	102,756	<b>171%</b>	<b>35M</b>	1000	713.0	713	<b>178%</b>
11BS-7-SA	<b>No. 11</b>	1.56	150,500	96,474	<b>161%</b>	<b>35M</b>	1000	669.4	669	<b>167%</b>
11BS-8-SA	<b>No. 11</b>	1.56	149,500	95,833	<b>160%</b>	<b>35M</b>	1000	665.0	665	<b>166%</b>
11U-10-SB	<b>No. 11</b>	1.56	168,300	107,885	<b>180%</b>	<b>35M</b>	1000	748.6	749	<b>187%</b>
11U-11-SC	<b>No. 11</b>	1.56	161,800	103,718	<b>173%</b>	<b>35M</b>	1000	719.7	720	<b>180%</b>
11U-12-SA	<b>No. 11</b>	1.56	151,000	96,795	<b>161%</b>	<b>35M</b>	1000	671.6	672	<b>168%</b>

**NOTES**

Test results are from routine testing of each heat lot of arriving coupler material, per Barsplice Products, Inc. ISO Quality System.

Reinforcing Bars, per ASTM A 615 Grade 60, have a specified yield, fy = 60,000 psi (420 N/mm<sup>2</sup>).

See Lab reports for stress versus displacement curves (stress versus cross-head position).

Load rates per ASTM A 370.

Specimens marked 9U or 11U are unspliced control bars.

ASTM = American Society for Testing and Materials

CSA = Canadian Standards Association



**BPI® BARGRIP SYSTEM STATIC TEST DATA CONVERSION - 45M AND 55M**

Location of Test	ASTM Bar Size Designation	ASTM Bar area in <sup>2</sup>	Max Load lb	Max Stress psi	Developed Stress %fy 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 %fy CSA Gr 400
14BS-1-SB	<b>No. 14</b>	2.25	225,800	100,356	<b>167%</b>	<b>45M</b>	1500	1004.4	670	<b>167%</b>
14BS-2-SB	<b>No. 14</b>	2.25	243,800	108,356	<b>181%</b>	<b>45M</b>	1500	1084.4	723	<b>181%</b>
14BS-4-SC	<b>No. 14</b>	2.25	245,000	108,889	<b>181%</b>	<b>45M</b>	1500	1089.8	727	<b>182%</b>
14BS-5-SC	<b>No. 14</b>	2.25	223,300	99,244	<b>165%</b>	<b>45M</b>	1500	993.2	662	<b>166%</b>
14BS-7-SA	<b>No. 14</b>	2.25	235,800	104,800	<b>175%</b>	<b>45M</b>	1500	1048.8	699	<b>175%</b>
14BS-8-SA	<b>No. 14</b>	2.25	223,300	99,244	<b>165%</b>	<b>45M</b>	1500	993.2	662	<b>166%</b>
14U-10-SB	<b>No. 14</b>	2.25	248,500	110,444	<b>184%</b>	<b>45M</b>	1500	1105.3	737	<b>184%</b>
14U-11-SC	<b>No. 14</b>	2.25	244,500	108,667	<b>181%</b>	<b>45M</b>	1500	1087.5	725	<b>181%</b>
14U-12-SA	<b>No. 14</b>	2.25	223,500	99,333	<b>166%</b>	<b>45M</b>	1500	994.1	663	<b>166%</b>
18BS-1-SB	<b>No. 18</b>	4.00	399,000	99,750	<b>166%</b>	<b>55M</b>	2500	1774.8	710	<b>177%</b>
18BS-2-SB	<b>No. 18</b>	4.00	386,000	96,500	<b>161%</b>	<b>55M</b>	2500	1716.9	687	<b>172%</b>
18BS-4-SC	<b>No. 18</b>	4.00	415,500	103,875	<b>173%</b>	<b>55M</b>	2500	1848.1	739	<b>185%</b>
18BS-5-SC	<b>No. 18</b>	4.00	425,000	106,250	<b>177%</b>	<b>55M</b>	2500	1890.4	756	<b>189%</b>
18BS-7-SA	<b>No. 18</b>	4.00	427,000	106,750	<b>178%</b>	<b>55M</b>	2500	1899.3	760	<b>190%</b>
18BS-8-SA	<b>No. 18</b>	4.00	426,000	106,500	<b>178%</b>	<b>55M</b>	2500	1894.8	758	<b>189%</b>
18U-10-SB	<b>No. 18</b>	4.00	427,500	106,875	<b>178%</b>	<b>55M</b>	2500	1901.5	761	<b>190%</b>
18U-11-SC	<b>No. 18</b>	4.00	424,000	106,000	<b>177%</b>	<b>55M</b>	2500	1886.0	754	<b>189%</b>
18U-12-SA	<b>No. 18</b>	4.00	426,000	106,500	<b>178%</b>	<b>55M</b>	2500	1894.8	758	<b>189%</b>

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Load rates per ASTM A 370.

Specimens marked 14U or 18U are unspliced control bars.

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