BarSplice PRODUCTS INC.
SUBSIDIARY OF FC INDUSTRIES, INC.

ZAP T-LOK 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
5T5760	5A	BLACK	**No. 5**	0.31	32,910	106,161	**177%**	**15M**	200	146.4	732	**183%**
	5B		**No. 5**	0.31	33,160	106,968	**178%**	**15M**	200	147.5	737	**184%**
5T5870	5A	BLACK	**No. 5**	0.31	32,920	106,194	**177%**	**15M**	200	146.4	732	**183%**
	5B		**No. 5**	0.31	33,310	107,452	**179%**	**15M**	200	148.2	741	**185%**
5T5892	5A	BLACK	**No. 5**	0.31	35,280	113,806	**190%**	**15M**	200	156.9	785	**196%**
	5B		**No. 5**	0.31	33,370	107,645	**179%**	**15M**	200	148.4	742	**186%**
5T6123	5A	BLACK	**No. 5**	0.31	33,120	106,839	**178%**	**15M**	200	147.3	737	**184%**
5T7930	5A	EPOXY	**No. 5**	0.31	32,430	104,613	**174%**	**15M**	200	144.2	721	**180%**
	5B		**No. 5**	0.31	32,900	106,129	**177%**	**15M**	200	146.3	732	**183%**
6T3577	6A	BLACK	**No. 6**	0.44	50,100	113,864	**190%**	**20M**	300	222.8	743	**186%**
	6B		**No. 6**	0.44	50,530	114,841	**191%**	**20M**	300	224.8	749	**187%**
6T4391	6A	BLACK	**No. 6**	0.44	46,120	104,818	**175%**	**20M**	300	205.1	684	**171%**
	6B		**No. 6**	0.44	44,910	102,068	**170%**	**20M**	300	199.8	666	**166%**
6T5263	6A	BLACK	**No. 6**	0.44	47,340	107,591	**179%**	**20M**	300	210.6	702	**175%**
	6B		**No. 6**	0.44	47,690	108,386	**181%**	**20M**	300	212.1	707	**177%**

NOTES

All headed devices meet ACI 318 Section 20, and ASTM A970 Class A & HA (Reverse Orientation) requirements (100% fu) Grade 60 bar.
The Zap T-Lok meets CSA A23.3 Clause 7.1.4 requirement of gross bearing area 10 times the bar area, 10Ab.
Results shown are from routine testing of various heat lots of completed headed devices, per Barsplice Products, Inc. ISO 9001 Quality System.
Conducted on reinforcing bars per ASTM A615 (or *A706) Grade 60, with a specified yield, fy = 60,000 psi (420 N/mm^2).
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

R2: 01-JUL-20

BarSplice PRODUCTS INC.
SUBSIDIARY OF FC INDUSTRIES, INC.

ZAP T-LOK 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 $\%f_y$ 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 $\%f_y$ CSA Gr 400
8T2862	8A	BLACK	**No. 8**	0.79	92,430	117,000	**195%**	**25M**	500	411.1	822	**206%**
8T2876	8A	BLACK	**No. 8**	0.79	84,710	107,228	**179%**	**25M**	500	376.8	754	**188%**
	8B		**No. 8**	0.79	86,320	109,266	**182%**	**25M**	500	384.0	768	**192%**
8T2957	8A	BLACK	**No. 8**	0.79	88,090	111,506	**186%**	**25M**	500	391.8	784	**196%**
	8B		**No. 8**	0.79	84,100	106,456	**177%**	**25M**	500	374.1	748	**187%**
8T3085	8A	BLACK	**No. 8**	0.79	86,460	109,443	**182%**	**25M**	500	384.6	769	**192%**
	8B		**No. 8**	0.79	85,810	108,620	**181%**	**25M**	500	381.7	763	**191%**
9T1246	9A	BLACK	**No. 9**	1.00	101,720	101,720	**170%**	**30M**	700	452.5	646	**162%**
	9B		**No. 9**	1.00	96,080	96,080	**160%**	**30M**	700	427.4	611	**153%**
9T1343	9A	BLACK	**No. 9**	1.00	109,560	109,560	**183%**	**30M**	700	487.3	696	**174%**
	9B		**No. 9**	1.00	100,410	100,410	**167%**	**30M**	700	446.6	638	**160%**
9T2351	9A	EPOXY	**No. 9**	1.00	111,290	111,290	**185%**	**30M**	700	495.0	707	**177%**
	9B		**No. 9**	1.00	109,600	109,600	**183%**	**30M**	700	487.5	696	**174%**
9T2378	9A	BLACK	**No. 9**	1.00	112,860	112,860	**188%**	**30M**	700	502.0	717	**179%**
	9B		**No. 9**	1.00	114,180	114,180	**190%**	**30M**	700	507.9	726	**181%**

NOTES

All headed devices meet ACI 318 Section 20, and ASTM A970 Class A & HA (Reverse Orientation) requirements (100% f_u) Grade 60 bar.
The Zap T-Lok meets CSA A23.3 Clause 7.1.4 requirement of gross bearing area 10 times the bar area, 10Ab.
Results shown are from routine testing of various heat lots of completed headed devices, per Barsplice Products, Inc. ISO 9001 Quality System.
Conducted on reinforcing bars per ASTM A615 (or *A706) Grade 60, with a specified yield, f_y = 60,000 psi (420 N/mm^2).
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

R2: 01-JUL-20

BarSplice PRODUCTS INC.
SUBSIDIARY OF FC INDUSTRIES, INC.

ZAP T-LOK SYSTEM TEST DATA CONVERSION - 35M AND 45M (GRADE 400)

Lab Report & Reference No.		Bar Type	ASTM Bar Size Designation	ASTM Bar Area (in²)	Max Load (lb)	Max Stress (psi)	Developed Stress %f_y ASTM Gr 60 (metric Gr 420)	Equivalent CSA Designation	CSA Bar Area (mm²)	Max Load (kN)	Equivalent Max Stress CSA Gr 400 (N/mm²)	Equivalent Developed Stress %f_y CSA Gr 400
11T2082	11A	BLACK	**No. 11**	1.56	164,029	105,147	**175%**	**35M**	1000	729.6	730	**182%**
	11B		**No. 11**	1.56	159,560	102,282	**170%**	**35M**	1000	709.7	710	**177%**
11T2085	11A	BLACK	**No. 11**	1.56	163,120	104,564	**174%**	**35M**	1000	725.6	726	**181%**
	11B		**No. 11**	1.56	166,110	106,481	**177%**	**35M**	1000	738.9	739	**185%**
11T2089	11A	BLACK	**No. 11**	1.56	160,980	103,192	**172%**	**35M**	1000	716.0	716	**179%**
	11B		**No. 11**	1.56	163,589	104,865	**175%**	**35M**	1000	727.6	728	**182%**
11T4116	11A	EPOXY	**No. 11**	1.56	154,030	98,737	**165%**	**35M**	1000	685.1	685	**171%**
	11B		**No. 11**	1.56	154,360	98,949	**165%**	**35M**	1000	686.6	687	**172%**
11T4155	11A	BLACK	**No. 11**	1.56	172,890	110,827	**185%**	**35M**	1000	769.0	769	**192%**
	11B		**No. 11**	1.56	170,510	109,301	**182%**	**35M**	1000	758.4	758	**190%**
14T628	14A	BLACK	**No. 14**	2.25	218,831	97,258	**162%**	**45M**	1500	973.4	649	**162%**
	14B		**No. 14**	2.25	226,870	100,831	**168%**	**45M**	1500	1009.1	673	**168%**
14T773	14A	BLACK	**No. 14**	2.25	251,960	111,982	**187%**	**45M**	1500	1120.7	747	**187%**
	14B		**No. 14**	2.25	259,200	115,200	**192%**	**45M**	1500	1152.9	769	**192%**
14T775	14A	BLACK	**No. 14**	2.25	252,511	112,227	**187%**	**45M**	1500	1123.2	749	**187%**
14T943	14A	BLACK	**No. 14**	2.25	232,180	103,191	**172%**	**45M**	1500	1032.7	688	**172%**
	14B		**No. 14**	2.25	253,730	112,769	**188%**	**45M**	1500	1128.6	752	**188%**

NOTES

All headed devices meet ACI 318 Section 20, and ASTM A970 Class A & HA (Reverse Orientation) requirements (100% f_u) Grade 60 bar.
The Zap T-Lok meets CSA A23.3 Clause 7.1.4 requirement of gross bearing area 10 times the bar area, 10Ab.
Results shown are from routine testing of various heat lots of completed headed devices, per Barsplice Products, Inc. ISO 9001 Quality System.
Conducted on reinforcing bars per ASTM A615 (or *A706) Grade 60, with a specified yield, f_y = 60,000 psi (420 N/mm²).
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

R2: 01-JUL-20