

Annex A. Experimental Data Employed for the Analysis of Tensile Reinforced Concrete Elements

All the collected reinforced concrete tensile specimens with their concrete strength, bar diameter and crack spacing values are presented in Table A.1.

Table A.1. Experimental results of tensile RC elements

Bischoff & MacLaggan (2006)				Farra & Jaccoud (1992)			
No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm	No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm
1	16	41.5	157	7	10	36.9	193
2	16	41.5	138	8	10	36.9	238
Choi & Maekawa (2003)				9	10	36.9	193
No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm	10	10	39.9	311
1	16	39.8	163	11	10	39.9	194
2	16	43.6	184	12	10	39.9	193
3	16	43.3	210	13	10	44.8	192
4	16	40.2	163	14	10	44.8	238
5	16	37.8	147	15	10	44.8	238
6	16	42.9	147	16	10	48.6	192
Danielius (2014)				17	10	48.6	193
No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm	18	10	48.6	192
1	10	53.13	200	19	10	53.8	235
2	10	53.13	200	20	10	53.8	237
3	10	53.13	165	21	10	53.8	237
4	12	53.13	143	22	10	55.4	193
5	12	53.13	202	23	10	55.4	239
6	12	53.13	166	24	10	55.4	193
7	14	53.13	143	25	10	38.8	238
8	14	53.13	166	26	10	38.8	239
Farra & Jaccoud (1992)				27	10	46.3	240
No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm	28	10	46.3	239
1	10	29.9	237	29	10	46.3	239
2	10	29.9	237	30	10	56.9	193
3	10	29.9	238	31	10	56.9	239
4	10	32.4	192	32	10	56.9	193
5	10	32.4	237	33	10	65	193
6	10	32.4	238	34	10	65	162

Table A.1. continued

Farra & Jaccoud (1992)				69	14	46.3	160
No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm	70	14	56.9	139
35	10	65	193	71	14	56.9	139
36	10	67.2	242	72	14	56.9	139
37	10	67.2	195	73	14	65	160
38	10	67.2	242	74	14	65	161
39	10	87.1	194	75	14	65	160
40	10	87.1	319	76	14	67.2	162
41	14	29.9	159	77	14	67.2	162
42	14	29.9	188	78	14	67.2	193
43	14	32.4	159	79	14	87.1	140
44	14	32.4	122	80	14	87.1	192
45	14	32.4	159	81	14	87.1	162
46	14	36.9	160	82	20	29.9	134
47	14	36.9	189	83	20	29.9	134
48	14	36.9	190	84	20	29.9	120
49	14	39.9	160	85	20	32.4	135
50	14	39.9	191	86	20	32.4	153
51	14	39.9	160	87	20	32.4	135
52	14	44.8	190	88	20	36.9	136
53	14	44.8	190	89	20	36.9	136
54	14	44.8	139	90	20	36.9	155
55	14	48.6	187	91	20	39.9	135
56	14	48.6	159	92	20	39.9	155
57	14	48.6	159	93	20	39.9	136
58	14	53.8	160	94	20	44.8	136
59	14	53.8	159	95	20	44.8	155
60	14	53.8	138	96	20	44.8	154
61	14	55.4	160	97	20	48.6	121
62	14	55.4	160	98	20	48.6	154
63	14	55.4	160	99	20	48.6	120
64	14	38.8	160	100	20	53.8	121
65	14	38.8	189	101	20	53.8	154
66	14	38.8	160	102	20	53.8	136
67	14	46.3	160	103	20	55.4	121
68	14	46.3	139	104	20	55.4	135

End of Table A.1.

Farra & Jaccoud (1992)				8	12	85	175
No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm	9	12	92	167
105	20	55.4	135	10	12	101	155
106	20	38.8	135	11	16	42	125
107	20	38.8	154	12	16	42	138
108	20	38.8	120	13	16	52	131
109	20	46.3	153	14	16	52	139
110	20	46.3	155	15	16	85	128
111	20	46.3	121	16	16	85	143
112	20	56.9	135	17	16	92	142
113	20	56.9	121	18	16	92	129
114	20	56.9	155	19	16	101	141
115	20	65	180	20	16	101	133
116	20	65	135	21	20	42	121
117	20	65	135	22	20	52	125
118	20	67.2	122	23	20	85	125
119	20	67.2	122	24	20	92	117
120	20	67.2	122	25	20	101	129
121	20	87.1	137	Scott (1987)			
122	20	87.1	157	No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm
123	20	87.1	137	1	12	36	300
Lorrain et al. (1998)				2	20	37.36	187.5
No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm	Wu & Gilbert (2008)			
1	10	42	192	No.	$\varnothing_s$, mm	f_{ck} , MPa	s_{rm} , mm
2	10	52	210	1	12	21.56	183
3	10	85	190	2	12	24.73	183
4	10	92	222	3	16	21.56	183
5	10	101	226	4	16	24.73	157
6	12	42	160				
7	12	52	173				