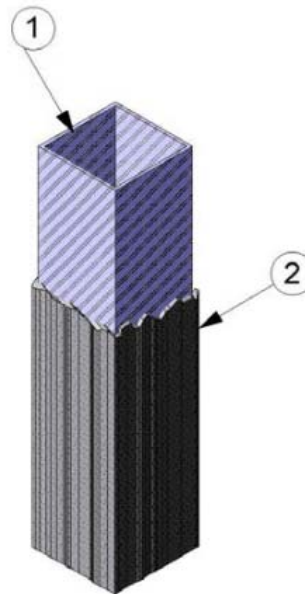


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**Carboline Company**  
**Design No. CC/IF 180-03**  
**Column**  
**Thermo-Lag E100 and Thermo-Lag E100 S**  
**ASTM E119**  
**CAN/ULC S101**  
**Rating: See Table CC/IF 180-03**

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**1. HOLLOW STRUCTURAL STEEL COLUMN:** Use hollow steel sections, rectangular-shape (shown) or circular-shape (not shown), having nominal  $H_p/A$  or  $W/D$ , or  $A/P$  section factors based on four-sided exposure. Refer to Table CC/IF 180-03 for specific application thickness of intumescent mastic fireproofing (Item 2) based on nominal  $H_p/A$ ,  $W/D$ , or  $A/P$  section factors.

**2. CERTIFIED MANUFACTURER:** Carboline Company

**CERTIFIED PRODUCT:** Fire-Resistive Coating

**CERTIFIED MODEL:** Thermo-Lag E100 and Thermo-Lag E100 S

**Intumescent Fireproofing:** Spray or paint in one or more coats according to manufacturer's instructions to required final thickness



Table CC/IF 180-03											
HP/A	W/D	60 min.		90 min.		120 min.		150 min.		180 min.	
		1/m	lb/ft/in	mm	in	mm	in	mm	in	mm	in
22	6.08	0.6	0.02	1.5	0.06	2.4	0.09	3.3	0.13	4.3	0.17
25	5.35	0.7	0.03	1.7	0.07	2.7	0.11	3.7	0.15	4.8	0.19
30	4.46	0.9	0.04	2.0	0.08	3.2	0.13	4.3	0.17	5.6	0.22
35	3.82	1.1	0.04	2.4	0.09	3.5	0.14	4.9	0.19	6.4	0.25
40	3.34	1.3	0.05	2.7	0.11	3.9	0.15	5.5	0.22	7.1	0.28
45	2.97	1.4	0.05	2.9	0.11	4.2	0.17	6.0	0.24	7.8	0.31
50	2.67	1.5	0.06	3.0	0.12	4.6	0.18	6.5	0.26	8.5	0.33
55	2.43	1.6	0.06	3.1	0.12	5.0	0.20	7.0	0.28	9.1	0.36
60	2.23	1.7	0.07	3.2	0.13	5.3	0.21	7.5	0.30	9.7	0.38
65	2.06	1.8	0.07	3.2	0.13	5.6	0.22	8.0	0.31	10.3	0.41
70	1.91	1.9	0.07	3.4	0.13	5.9	0.23	8.4	0.33	10.9	0.43
75	1.78	2.0	0.08	3.6	0.14	6.2	0.24	8.8	0.35	11.4	0.45
80	1.67	2.1	0.08	3.8	0.15	6.5	0.26	9.2	0.36	11.9	0.47
85	1.57	2.1	0.08	3.9	0.15	6.8	0.27	9.6	0.38	12.4	0.49
90	1.49	2.2	0.09	4.1	0.16	7.0	0.28	9.9	0.39	12.9	0.51
95	1.41	2.2	0.09	4.2	0.17	7.3	0.29	10.3	0.41	13.3	0.52
100	1.34	2.2	0.09	4.4	0.17	7.5	0.30	10.6	0.42	13.8	0.54
110	1.22	2.3	0.09	4.6	0.18	8.0	0.31	11.3	0.44	14.6	0.57
120	1.11	2.4	0.10	4.9	0.19	8.4	0.33	11.9	0.47	15.4	0.61
130	1.03	2.5	0.10	5.1	0.20	8.8	0.35	12.4	0.49	16.1	0.63
140	0.95	2.6	0.10	5.3	0.21	9.2	0.36	13.0	0.51	16.8	0.66
150	0.89	2.7	0.11	5.5	0.22	9.5	0.37	13.5	0.53	17.4	0.69
160	0.84	2.8	0.11	5.7	0.22	9.8	0.39	13.9	0.55	18.0	0.71
170	0.79	2.9	0.11	5.9	0.23	10.1	0.40	14.4	0.57	18.6	0.73
180	0.74	2.9	0.12	6.1	0.24	10.4	0.41	14.8	0.58	19.1	0.75
190	0.70	3.0	0.12	6.2	0.24	10.7	0.42	15.2	0.60	19.6	0.77
200	0.67	3.1	0.12	6.4	0.25	10.9	0.43	15.5	0.61		
210	0.64	3.2	0.13	6.5	0.26	11.2	0.44	15.9	0.63		

Note: A/P = W/D x 144/490

Consult the listing report on the Directory of Building Products (<https://bpdirectory.intertek.com>) for the edition of the standard(s) evaluated.