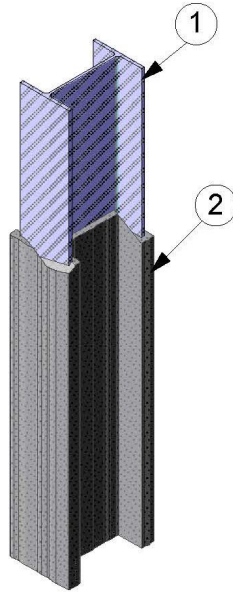


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**Carboline Global Inc.**  
**Design No. CC/IF 180-02**  
**Column**  
**Thermo-Lag E100 and Thermo-Lag E100 S**  
**ASTM E119**  
**CAN/ULC S101-07**  
**Rating: See Table CC/IF 180-02**

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- 1. SOLID STRUCTURAL STEEL COLUMN:** Use solid steel sections, I-shape or W-shape, having nominal  $H_p/A$ ,  $W/D$ , or  $A/P$  section factors based on four-sided exposure. Refer to Table CC/IF 180-02 for specific application thickness of intumescent fireproofing (Item 2A) based on nominal  $H_p/A$ ,  $W/D$ , or  $A/P$  section factors.
- 2. CERTIFIED MANUFACTURER:** Carboline Global Inc.

**CERTIFIED PRODUCT:** Fire-Resistive Coating

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

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



Table CC/IF 180-02											
HP/A	W/D	60 minutes		90 minutes		120 minutes		150 minutes		180 minutes	
1/m	lb/ft/in	mm	in	mm	in	mm	in	mm	in	mm	in
30	4.46	1.0	0.04	2.2	0.09	3.0	0.12	3.0	0.12	3.3	0.13
40	3.34	1.1	0.04	2.4	0.10	3.0	0.12	3.5	0.14	4.2	0.17
50	2.67	1.3	0.05	2.7	0.10	3.3	0.13	4.2	0.17	5.0	0.20
60	2.23	1.5	0.06	2.9	0.11	3.8	0.15	4.8	0.19	5.8	0.23
70	1.91	1.7	0.07	3.1	0.12	4.3	0.17	5.4	0.21	6.5	0.26
75	1.78	1.9	0.07	3.2	0.13	4.5	0.18	5.7	0.22	6.8	0.27
80	1.67	2.0	0.08	3.4	0.13	4.7	0.19	5.9	0.23	7.2	0.28
85	1.57	2.1	0.08	3.5	0.14	4.9	0.19	6.2	0.24	7.5	0.30
90	1.49	2.2	0.08	3.6	0.14	5.1	0.20	6.5	0.26	7.8	0.31
95	1.41	2.2	0.09	3.7	0.15	5.3	0.21	6.7	0.26	8.1	0.32
100	1.34	2.3	0.09	3.8	0.15	5.5	0.22	6.9	0.27	8.4	0.33
110	1.22	2.5	0.10	4.1	0.16	5.9	0.23	7.4	0.29	8.9	0.35
120	1.11	2.7	0.11	4.3	0.17	6.2	0.24	7.8	0.31	9.4	0.37
130	1.03	2.9	0.11	4.6	0.18	6.5	0.26	8.2	0.32	9.9	0.39
140	0.95	3.0	0.12	4.8	0.19	6.8	0.27	8.6	0.34	10.3	0.41
150	0.89	3.2	0.13	5.0	0.20	7.1	0.28	8.9	0.35	10.7	0.42
160	0.84	3.4	0.13	5.3	0.21	7.3	0.29	9.2	0.36	11.2	0.44
170	0.79	3.7	0.15	5.6	0.22	7.4	0.29	9.5	0.37	11.6	0.46
180	0.74	3.9	0.15	5.8	0.23	7.7	0.30	9.8	0.39	12.0	0.47
190	0.7	4.0	0.16	6.0	0.24	8.0	0.31	10.1	0.40	12.3	0.48
200	0.67	4.1	0.16	6.2	0.24	8.2	0.32	10.4	0.41	12.7	0.50
210	0.64	4.2	0.17	6.3	0.25	8.5	0.33	10.6	0.42	13.0	0.51
220	0.61	4.3	0.17	6.5	0.26	8.7	0.34	10.9	0.43	13.4	0.53
230	0.58	4.5	0.18	6.7	0.26	8.9	0.35	11.1	0.44	13.7	0.54
240	0.56	4.6	0.18	6.9	0.27	9.1	0.36	11.4	0.45	14.0	0.55
250	0.53	4.7	0.19	7.0	0.28	9.3	0.37	11.7	0.46	14.3	0.56
260	0.51	4.8	0.19	7.2	0.28	9.5	0.37	11.9	0.47	14.6	0.57
270	0.5	4.9	0.19	7.3	0.29	9.7	0.38	12.2	0.48	14.9	0.59
280	0.48	5.0	0.20	7.4	0.29	9.9	0.39	12.4	0.49	15.1	0.59
290	0.46	5.0	0.20	7.6	0.30	10.1	0.40	12.6	0.50	15.1	0.59
300	0.45	5.1	0.20	7.7	0.30	10.3	0.41	12.8	0.50	15.4	0.61
302	0.44	5.2	0.20	7.7	0.30	10.3	0.41	12.9	0.51	15.5	0.61

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



Division 07 80 00 – Fire and Smoke Protection  
07 81 00 – Applied Fire Proofing  
07 84 23 – Intumescent Fire Proofing

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

*Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.*