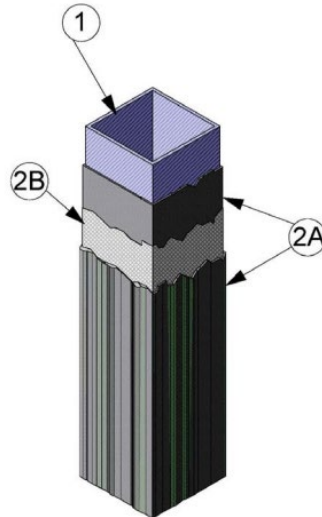


Carboline Global Inc.
Design No. CC/CA 180-03
Column
Thermo-Lag 3000
IMO/NPD Hydrocarbon Curve
CAN/ULC S101-07
Rating: See Table CC/CA 180-03



1. HOLLOW RECTANGULAR STRUCTURAL STEEL COLUMN: Use hollow rectangular steel sections having a nominal Hp/A, W/D, or A/P section factors based on four-sided exposure. Refer to Table CC/CA 180-03 for specific application thickness of intumescent fireproofing (Item 2A) based on nominal Hp/A, W/D, or A/P section factors.

2. INTUMESCENT FIREPROOFING: Refer to [Table CC/CA 180-03](#) for specific application thickness of fire resistive coating.

A. CERTIFIED MANUFACTURER: Carboline Global Inc.

CERTIFIED PRODUCT: Fire-Resistive Coating

CERTIFIED MODEL: Thermo-Lag 3000

Spray or paint in one or more coats according to manufacturer's instructions to a nominal 1/2 the required thickness specified in Table CC/CA 180-02 or 0.12-in. (whichever is smaller) before applying the high temperature fabric (Item 2B). After fabric installation, spray or paint in one or more coats according to manufacturer's instructions to required final thickness.

B. HIGH TEMPERATURE FABRIC: For final thickness of the intumescent fireproofing (Item 2A) of 0.24-in. or less, install fabric at middle depth of the intumescent fireproofing (Item 2A). For final thickness of the intumescent fireproofing (Item 2A) greater than 0.24-in., install fabric at 0.12-in. from structural steel beam (Item 1). Wrap fabric completely around column and overlap fabric a min. 1-in. at seams.



This Listing is based upon the hydrocarbon fire time-temperature curve conditions required by the International Maritime Organization. The Norwegian Petroleum Directorate, NPD, also defines this exposure.

Table CC/CA 180-03											
Data Based on 538°C (1000°F) Average											
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	mm	in
22	6.08	3.2	0.13	3.2	0.13	3.2	0.13	3.3	0.13	4.3	0.17
25	5.35	3.2	0.13	3.2	0.13	3.2	0.13	3.7	0.15	4.8	0.19
30	4.46	3.2	0.13	3.2	0.13	3.2	0.13	4.3	0.17	5.6	0.22
35	3.82	3.2	0.13	3.2	0.13	3.5	0.14	4.9	0.19	6.4	0.25
40	3.34	3.2	0.13	3.2	0.13	3.9	0.15	5.5	0.22	7.1	0.28
45	2.97	3.2	0.13	3.2	0.13	4.2	0.17	6.0	0.24	7.8	0.31
50	2.67	3.2	0.13	3.2	0.13	4.6	0.18	6.5	0.26	8.5	0.33
55	2.43	3.2	0.13	3.2	0.13	5.0	0.20	7.0	0.28	9.1	0.36
60	2.23	3.2	0.13	3.2	0.13	5.3	0.21	7.5	0.30	9.7	0.38
65	2.06	3.2	0.13	3.2	0.13	5.6	0.22	8.0	0.31	10.3	0.41
70	1.91	3.2	0.13	3.4	0.13	5.9	0.23	8.4	0.33	10.9	0.43
75	1.78	3.2	0.13	3.6	0.14	6.2	0.24	8.8	0.35	11.4	0.45
80	1.67	3.2	0.13	3.8	0.15	6.5	0.26	9.2	0.36	11.9	0.47
85	1.57	3.2	0.13	3.9	0.15	6.8	0.27	9.6	0.38	12.4	0.49
90	1.49	3.2	0.13	4.1	0.16	7.0	0.28	9.9	0.39	12.9	0.51
95	1.41	3.2	0.13	4.2	0.17	7.3	0.29	10.3	0.41	13.3	0.52
100	1.34	3.2	0.13	4.4	0.17	7.5	0.30	10.6	0.42	13.8	0.54
110	1.22	3.2	0.13	4.6	0.18	8.0	0.31	11.3	0.44	14.6	0.57
120	1.11	3.2	0.13	4.9	0.19	8.4	0.33	11.9	0.47	15.4	0.61
130	1.03	3.2	0.13	5.1	0.20	8.8	0.35	12.4	0.49	16.1	0.63
140	0.95	3.2	0.13	5.3	0.21	9.2	0.36	13.0	0.51	16.8	0.66
150	0.89	3.2	0.13	5.5	0.22	9.5	0.37	13.5	0.53	17.4	0.69
160	0.84	3.2	0.13	5.7	0.22	9.8	0.39	13.9	0.55	18.0	0.71
170	0.79	3.2	0.13	5.9	0.23	10.1	0.40	14.4	0.57	18.6	0.73
180	0.74	3.2	0.13	6.1	0.24	10.4	0.41	14.8	0.58	19.1	0.75
190	0.7	3.2	0.13	6.2	0.24	10.7	0.42	15.2	0.60	19.6	0.77
200	0.67	3.2	0.13	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		

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.