



032-073



# Cafco SPRAYFILM® WB3

Structural Steel Column & Beam Coating  
For Building & Construction Industries

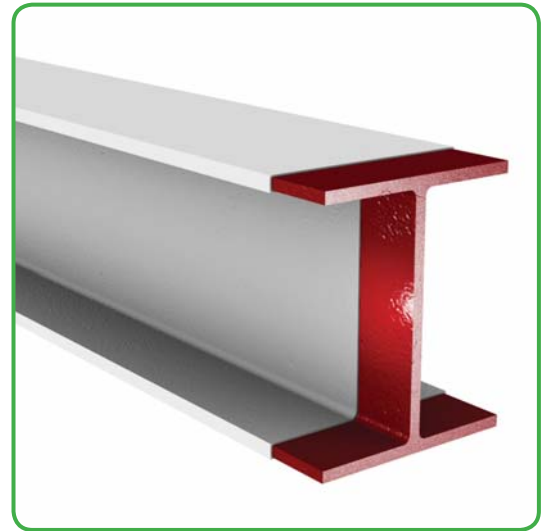


### General Description

Cafco SPRAYFILM® WB3 is a water based intumescent coating consisting of polyvinyl acetate resins and fillers for the fire protection of structural steel. It is preferably spray applied with airless paint equipment for speed and quality of finish. Brush and roller application is also possible.

Cafco SPRAYFILM® WB3 can be sealed and protected with a decorative top coat. It is applied directly to the contour of primed I and H section columns, angles, channels and beams and both square and circular hollow sections, to provide fire protection for up to 120 minutes.

In a fire, a chemical reaction takes place causing the Cafco SPRAYFILM® WB3 to expand and form an insulating layer which slows the temperature of the steel rising to a critical level.



### Applications

Structural steel column and beam coating fire protection for building and construction industries. For the complete information of substrate preparation prior to applying Cafco SPRAYFILM® WB3 product, installation methods, fire protection thicknesses, application limitations etc, please contact Promat for the Cafco SPRAYFILM® WB3 application guide.

### Fire protection thickness

The thickness of the fire protection for a given period of fire resistance in cellulosic type fire, relates to the  $H_p/A$  ratio of the steel section.  $H_p/A$  is the ratio of the heated perimeter of a steel section exposed to fire to the cross sectional area of the same steel. All column and beam sections have their own specific  $H_p/A$  ratio. Please refer to the tables on pages 4 to 10 on thickness for the fire resistance required. Otherwise please consult Promat to establish the  $H_p/A$  ratio for a particular beam or column section and to ascertain the required thickness of Cafco SPRAYFILM® WB3.

### General Technical Properties

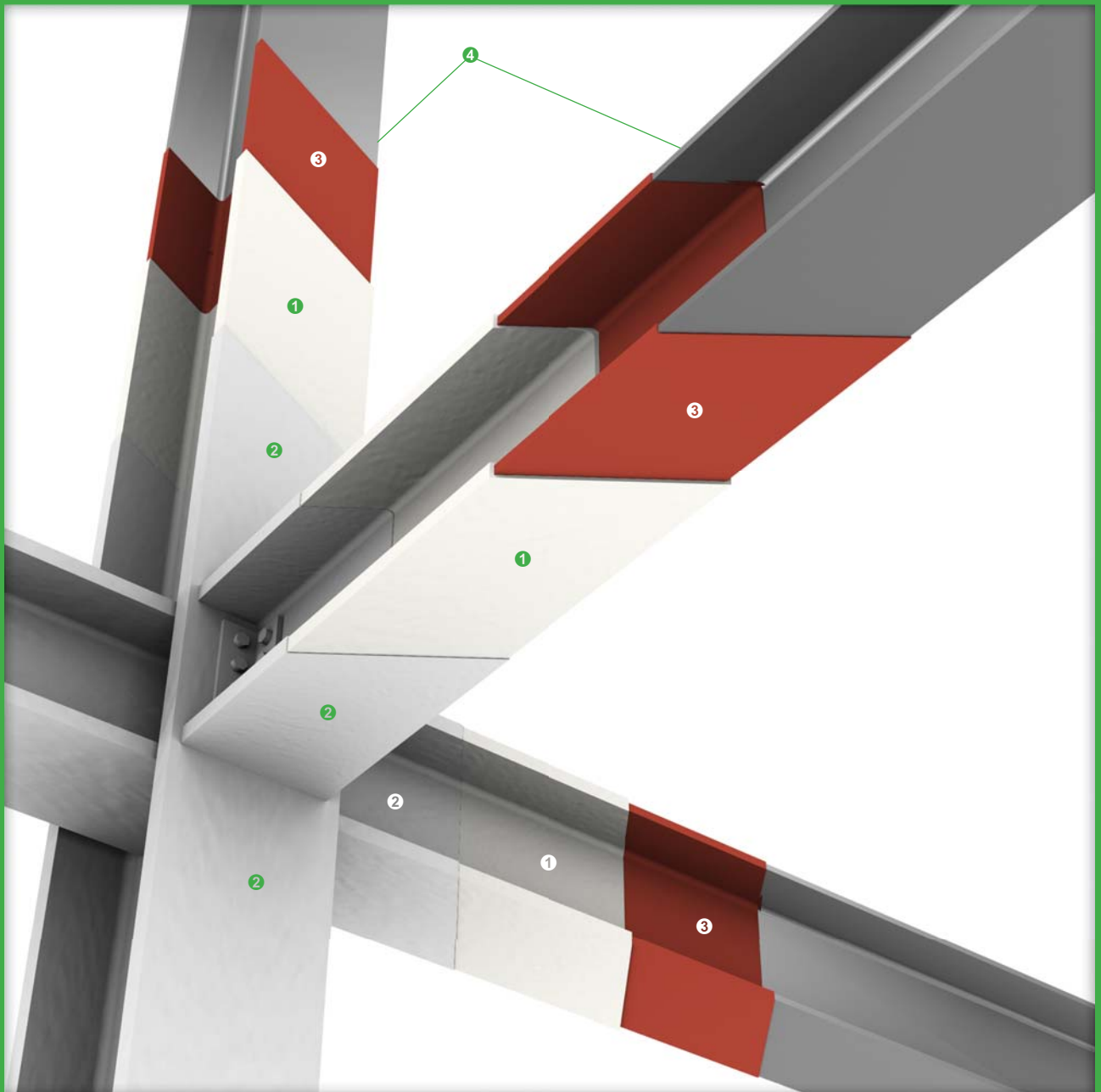
Fire resistance		Steel structures protected with Cafco SPRAYFILM® WB3 have undergone fire resistance tests up to 120 minutes in approved independent laboratories to recognised standards throughout the world, including: <ul style="list-style-type: none"> <li>● Australia (AS 1530: Part 4: 2005)</li> <li>● UK (BS 476: Part 21: 1987)</li> <li>● Canada and USA (ASTM E84 and E119: 1998)</li> </ul> Fire resistance test results are assessed in accordance with ASFP "Fire protection for structural steel in buildings" procedures. If UL certification is required, please consult Promat.
Surface burning (ASTM E84: 1998)		Flame spread 5, smoke development 35
Alkalinity	pH	8.0 ± 0.2 at 25°C
Theoretical coverage		Approximately 18.79m <sup>2</sup> per container at 0.7mm DFT
Practical coverage		Dependent on surface texture, substrate, application method and technique.
Number of coats		One or more as required
Maximum thickness (WFT) per coat	mm	1.6 using spray 0.76 using brush  For airless spraying, several thin coats as opposed to one heavy coat will give greater control over finish and thickness.
Cure		By air drying
Initial set at 20°C, 50% RH and 0.4mm WFT		Approximately 6 hours
Density	kg/litre	1.33
Solids by weight		70% ± 2%
Impact resistance (ASTM D2794: 1993-2010)	kg/m	18
Durometer hardness (ASTM D2240: 2005-2010)		80 shore D
Abrasion resistance at 1000 cycles (ASTM D4060: 1995)	g	0.6505
Colour and texture condition		White with a flat matt finish

NOTE: 1mm = 1000µm (microns)

Packaging	Storage	Shelf life	Environmental
25kg plastic pails	<ul style="list-style-type: none"> <li>● Indoors in dry conditions between 10°C and 38°C.</li> <li>● Protect from frost, excessive heat (above 45°C) and strong radiant sunlight.</li> </ul>	Maximum 10 months in original sealed containers	Do not discharge into drains, watercourses or soil.

Cafco SPRAYFILM® WB3 is manufactured under a quality management system certified in accordance with ISO 9001: 2008. For complete UL listing to application of this product, please visit UL website at <http://www.ul.com>.

**GUARANTEE ADEQUATE VENTILATION DURING WORK. AVOID CONTACT WITH THE EYES AND SKIN AND AVOID INHALATION OF THE DUST BY WEARING APPROPRIATE PERSONAL PROTECTION GEAR (SAFETY GOGGLES, PROTECTIVE CLOTHING AND DUST MASK). FOR MORE INFORMATION PLEASE CHECK THE MATERIAL SAFETY DATA SHEET, AVAILABLE UPON REQUEST.**



Up to 120/- fire resistance in accordance with the requirements of BS 476: Part 21: 1987 and/or AS 1530: Part 4: 2005

- ① Spray, brush or roller applied Cafco SPRAYFILM® WB3 water based intumescent coating, thickness in accordance with the Hp/A Ratio tables on pages 4 to 10
- ② Spray, brush or roller applied CAFCO® TOPCOAT 200 acrylic polymer coating as a top coat sealer for humid or external applications and use in moisture laden conditions or wet areas
- ③ Primer approved by Promat  
Please consult Promat and refer to application documents for the approved range of primers and top seals.
- ④ Structural steel column and beam. Clean, dry and free from dust, oil, loose mill scale or rust and any other condition preventing good adhesion AND blast cleaned in accordance with the requirements of AS 1627: Part 4 and SA 2.5 (ISO 8501-1: 1998) prior to applying the primer



**Hp/A Ratio Table 1** Up to 120/-/- fire resistance in accordance with the requirements of **BS 476: Part 21: 1987** (report no. WF 176738A) for four sided 'H' section of structural steel column protection at critical temperature of 550°C

Hp/A	Caico SPRAYFILM® WB3 coating thickness when cured / dry film thickness (mm)			
	30 minutes	60 minutes	90 minutes	120 minutes
Up to 45	0.23	0.60	1.00	1.50
46-50	0.23	0.60	1.00	1.50
51-55	0.23	0.60	1.00	1.50
56-60	0.23	0.60	1.00	1.50
61-65	0.23	0.60	1.00	1.50
66-70	0.23	0.60	1.00	1.75
71-75	0.23	0.60	1.00	2.00
76-80	0.23	0.60	1.00	2.07
81-85	0.23	0.60	1.00	2.14
86-90	0.23	0.60	1.01	2.21
91-95	0.23	0.60	1.10	2.29
96-100	0.23	0.60	1.19	2.36
101-105	0.23	0.60	1.28	2.43
106-110	0.23	0.60	1.36	2.50
111-115	0.23	0.60	1.45	2.57
116-120	0.23	0.60	1.53	2.64
121-125	0.23	0.66	1.61	2.71
126-130	0.23	0.71	1.69	2.79
131-135	0.23	0.75	1.77	2.86
136-140	0.23	0.80	1.85	2.93
141-145	0.23	0.85	1.94	3.00
146-150	0.23	0.87	2.02	3.19
151-155	0.23	0.88	2.05	3.37
156-160	0.24	0.89	2.10	3.56
161-165	0.24	0.90	2.14	3.74
166-170	0.24	0.90	2.18	3.93
171-175	0.24	0.91	2.23	4.13
176-180	0.24	0.92	2.27	4.36
181-185	0.25	0.92	2.32	4.58
186-190	0.25	0.93	2.36	4.80
191-195	0.25	0.94	2.40	5.02
196-200	0.25	0.95	2.45	5.24
201-205	0.25	0.95	2.49	5.47
206-210	0.26	0.96	2.54	5.69
211-215	0.26	0.97	2.58	5.91
216-220	0.27	0.97	2.62	6.13
221-225	0.27	0.98	2.67	6.36
226-230	0.28	0.99	2.71	6.58
231-235	0.28	1.00	2.75	—
236-240	0.29	1.00	2.80	—
241-245	0.29	1.04	2.84	—
246-250	0.30	1.06	2.89	—
251-255	0.30	1.09	2.93	—
256-260	0.31	1.12	2.97	—
261-265	0.31	1.14	3.02	—
266-270	0.32	1.17	3.14	—
271-275	0.32	1.19	3.24	—
276-280	0.33	1.22	3.34	—
281-285	0.33	1.25	3.44	—
286-290	0.34	1.27	3.54	—
291-295	0.34	1.30	3.64	—
296-300	0.35	1.33	3.74	—
301-305	0.35	1.35	3.84	—
306-310	0.36	1.38	3.94	—
311-315	0.36	1.41	4.04	—
316-320	0.37	1.43	4.32	—

NOTE: Figures are accurate at time of publication. Maximum critical temperatures for fully loaded structural steel members are normally accepted at 550°C for four sided column protection and at 620°C for three sided beam protection as a support to composite concrete floors.

**Hp/A Ratio Table 2** Up to 120/-/- fire resistance in accordance with the requirements of **BS 476: Part 21: 1987** (report no. WF 176738A) for four sided 'I' section of structural steel beam protection at critical temperature of 550°C

Hp/A	Cafco SPRAYFILM® WB3 coating thickness when cured / dry film thickness (mm)			
	30 minutes	60 minutes	90 minutes	120 minutes
Up to 45	0.23	0.57	1.20	1.20
46-50	0.23	0.57	1.20	1.20
51-55	0.23	0.57	1.20	1.22
56-60	0.23	0.57	1.20	1.33
61-65	0.23	0.57	1.20	1.44
66-70	0.23	0.57	1.20	1.53
71-75	0.23	0.57	1.20	1.82
76-80	0.23	0.57	1.20	2.05
81-85	0.23	0.57	1.20	2.09
86-90	0.23	0.57	1.20	2.17
91-95	0.23	0.57	1.20	2.25
96-100	0.23	0.57	1.20	2.33
101-105	0.23	0.57	1.21	2.41
106-110	0.23	0.57	1.27	2.48
111-115	0.23	0.57	1.33	2.56
116-120	0.23	0.57	1.38	2.64
121-125	0.23	0.57	1.44	2.72
126-130	0.23	0.63	1.50	2.80
131-135	0.23	0.68	1.63	2.88
136-140	0.23	0.74	1.76	2.95
141-145	0.23	0.79	1.89	3.03
146-150	0.23	0.85	2.03	3.24
151-155	0.23	0.88	2.06	3.41
156-160	0.23	0.90	2.12	3.59
161-165	0.23	0.91	2.17	3.76
166-170	0.23	0.93	2.22	3.93
171-175	0.24	0.95	2.27	4.13
176-180	0.24	0.96	2.33	4.36
181-185	0.24	0.98	2.38	4.58
186-190	0.24	1.00	2.43	4.80
191-195	0.24	1.01	2.48	5.02
196-200	0.25	1.03	2.54	5.24
201-205	0.25	1.05	2.59	5.47
206-210	0.25	1.07	2.64	5.69
211-215	0.25	1.08	2.69	5.91
216-220	0.26	1.10	2.75	6.13
221-225	0.27	1.12	2.80	6.36
226-230	0.27	1.13	2.85	6.58
231-235	0.28	1.15	2.91	—
236-240	0.29	1.17	2.96	—
241-245	0.30	1.18	3.01	—
246-250	0.30	1.20	3.18	—
251-255	0.31	1.22	3.32	—
256-260	0.32	1.25	3.42	—
261-265	0.32	1.27	3.62	—
266-270	0.33	1.30	3.76	—
271-275	0.34	1.32	3.91	—
276-280	0.35	1.34	4.06	—
281-285	0.35	1.37	4.18	—
286-290	0.36	1.39	4.30	—
291-295	0.37	1.41	4.43	—
296-300	0.38	1.44	4.56	—
301-305	0.38	1.46	4.68	—
306-310	0.39	1.49	4.81	—
311-315	0.40	1.51	4.94	—
316-320	0.40	1.54	5.06	—

NOTE: Figures are accurate at time of publication. Maximum critical temperatures for fully loaded structural steel members are normally accepted at 550°C for four sided column protection and at 620°C for three sided beam protection as a support to composite concrete floors.

**Hp/A Ratio Table 3** Up to 120/-/- fire resistance in accordance with the requirements of **BS 476: Part 21: 1987** (report no. WF 176738A) for **three sided 'I' section of structural steel beam protection (where the beam forms part of a composite action concrete of the floor slab) at critical temperature of 620°C**

Hp/A	Caico SPRAYFILM® WB3 coating thickness when cured / dry film thickness (mm)			
	30 minutes	60 minutes	90 minutes	120 minutes
46-50	0.23	0.25	1.20	1.20
51-55	0.23	0.25	1.20	1.20
56-60	0.23	0.25	1.20	1.20
61-65	0.23	0.25	1.20	1.20
66-70	0.23	0.25	1.20	1.20
71-75	0.23	0.25	1.20	1.20
76-80	0.23	0.27	1.20	1.23
81-85	0.23	0.28	1.20	1.32
86-90	0.23	0.30	1.20	1.40
91-95	0.23	0.32	1.20	1.48
96-100	0.23	0.34	1.20	1.70
101-105	0.23	0.36	1.20	1.95
106-110	0.23	0.38	1.20	2.05
111-115	0.23	0.40	1.20	2.11
116-120	0.23	0.42	1.20	2.17
121-125	0.23	0.44	1.20	2.23
126-130	0.23	0.46	1.20	2.29
131-135	0.23	0.48	1.20	2.35
136-140	0.23	0.50	1.20	2.41
141-145	0.23	0.52	1.20	2.47
146-150	0.23	0.54	1.26	2.53
151-155	0.23	0.56	1.31	2.59
156-160	0.23	0.57	1.37	2.65
161-165	0.23	0.57	1.42	2.71
166-170	0.23	0.57	1.48	2.77
171-175	0.23	0.61	1.58	2.83
176-180	0.23	0.64	1.70	2.89
181-185	0.23	0.67	1.83	2.95
186-190	0.23	0.70	1.95	3.01
191-195	0.23	0.73	2.02	3.40
196-200	0.23	0.76	2.07	3.73
201-205	0.23	0.8	2.11	4.07
206-210	0.23	0.83	2.15	4.26
211-215	0.24	0.86	2.19	4.28
216-220	0.24	0.88	2.23	4.70
221-225	0.24	0.89	2.27	4.91
226-230	0.24	0.91	2.31	5.13
231-235	0.24	0.93	2.36	5.35
236-240	0.25	0.94	2.40	5.57
241-245	0.25	0.96	2.44	5.78
246-250	0.25	0.97	2.48	6.00
251-255	0.25	0.99	2.52	6.22
256-260	0.25	1.00	2.56	6.43
261-265	0.26	1.02	2.60	—
266-270	0.26	1.04	2.64	—
271-275	0.27	1.05	2.69	—
276-280	0.28	1.07	2.73	—
281-285	0.28	1.08	2.77	—
286-290	0.29	1.10	2.81	—
291-295	0.29	1.11	2.85	—
296-300	0.30	1.13	2.89	—
301-305	0.30	1.14	2.93	—
306-310	0.31	1.16	2.98	—
311-315	0.31	1.18	3.02	—
316-320	0.32	1.19	3.22	—

NOTE: Figures are accurate at time of publication. Maximum critical temperatures for fully loaded structural steel members are normally accepted at 550°C for four sided column protection and at 620°C for three sided beam protection as a support to composite concrete floors.

**Hp/A Ratio Table 4** Up to 120/-/ fire resistance in accordance with the requirements of **BS 476: Part 21: 1987** for **four sided structural steel hollow section protection at critical temperature of 550°C\***

Hp/A	Cafco SPRAYFILM® WB3 coating thickness when cured / dry film thickness (mm)			
	30 minutes	60 minutes	90 minutes	120 minutes
46-50	0.23	0.40	1.80	3.50
51-55	0.23	0.42	1.80	3.50
56-60	0.23	0.44	1.80	3.50
61-65	0.23	0.47	1.80	3.50
66-70	0.23	0.49	1.80	3.50
71-75	0.24	0.51	1.92	3.50
76-80	0.24	0.53	2.07	3.50
81-85	0.25	0.56	2.20	3.50
86-90	0.25	0.58	2.34	3.50
91-95	0.25	0.60	2.47	3.50
96-100	0.26	0.66	2.54	3.50
101-105	0.27	0.72	2.59	3.67
106-110	0.28	0.78	2.65	3.94
111-115	0.28	0.84	2.70	4.22
116-120	0.29	0.90	2.75	4.50
121-125	0.30	0.96	2.80	4.78
126-130	0.31	1.02	2.85	5.06
131-135	0.32	1.03	2.91	5.33
136-140	0.33	1.06	2.96	5.61
141-145	0.34	1.08	3.01	5.89
146-150	0.35	1.11	3.06	6.17
151-155	0.36	1.13	3.11	6.44
156-160	0.37	1.15	3.17	—
161-165	0.38	1.18	3.22	—
166-170	0.39	1.20	3.27	—
171-175	0.40	1.23	3.32	—
176-180	0.40	1.25	3.38	—
181-185	0.41	1.27	3.43	—
186-190	0.41	1.30	3.48	—
191-195	0.42	1.32	3.57	—
196-200	0.42	1.35	3.70	—
201-205	0.43	1.37	3.82	—
206-210	0.43	1.40	3.94	—
211-215	0.44	1.42	4.06	—
216-220	0.44	1.44	4.19	—
221-225	0.45	1.47	4.31	—
226-230	0.45	1.49	4.43	—
231-235	0.46	1.52	4.55	—
236-240	0.46	1.54	4.68	—
241-245	0.47	1.56	4.80	—
246-250	0.47	1.59	4.92	—
251-255	0.48	1.61	5.04	—
256-260	0.48	1.64	5.17	—
261-265	0.49	1.66	5.29	—
266-270	0.49	1.68	5.41	—
271-275	0.50	1.71	5.53	—
276-280	0.50	1.73	5.66	—
281-285	0.50	1.76	5.78	—
286-290	0.51	1.78	5.90	—
291-295	0.51	1.80	6.02	—
296-300	0.52	1.86	6.15	—
301-305	0.52	1.90	6.27	—
306-310	0.53	1.95	6.39	—
311-315	0.53	1.99	6.51	—
316-320	0.54	2.04	—	—

NOTE: Figures are accurate at time of publication. Maximum critical temperatures for fully loaded structural steel members are normally accepted at 550°C for four sided column protection and at 620°C for three sided beam protection as a support to composite concrete floors.

\* Please consult Promat for the type of the structural steel hollow section protected and approvals.

**Hp/A Ratio Table 5** Up to 120/-/- fire resistance in accordance with the requirements of **AS 1530: Part 4: 2005** (report no. FAR2751) for four sided 'I' section of structural steel beam protection at critical temperature of 550°C

E (m <sup>2</sup> /t)	Hp/A	Caico SPRAYFILM® WB3 coating thickness when cured / dry film thickness (mm)			
		30 minutes	60 minutes	90 minutes	120 minutes
6	47	0.23	0.60	1.50	1.50
7	55	0.23	0.60	1.50	1.50
8	63	0.23	0.60	1.50	1.50
9	71	0.23	0.60	1.50	1.83
10	79	0.23	0.60	1.50	2.00
11	86	0.23	0.60	1.50	2.15
12	94	0.23	0.60	1.50	2.23
13	102	0.23	0.60	1.50	2.38
14	110	0.23	0.60	1.50	2.46
15	118	0.23	0.60	1.50	2.62
16	126	0.23	0.71	1.62	2.77
17	133	0.23	0.75	1.67	2.85
18	141	0.23	0.85	1.78	3.00
19	149	0.23	0.87	1.83	3.11
20	157	0.23	0.89	1.93	3.34
21	165	0.24	0.90	1.98	3.45
22	173	0.24	0.91	2.08	3.68
23	181	0.24	0.92	2.19	3.91
24	188	0.25	0.93	2.24	4.02
25	196	0.25	0.95	2.29	4.79
26	204	0.25	0.95	2.40	5.14
27	212	0.26	0.97	2.50	5.86
28	220	0.27	0.97	2.55	6.21
29	228	0.28	0.99	2.66	—
30	236	0.29	1.00	2.76	—
31	243	0.29	1.04	2.81	—
32	251	0.30	1.09	2.92	—
33	259	0.31	1.12	2.97	—
34	267	0.32	1.17	3.14	—
35	275	0.32	1.19	3.24	—
36	283	0.33	1.25	3.44	—
37	290	0.34	1.27	3.54	—
38	298	0.35	1.33	3.74	—
39	306	0.36	1.38	3.94	—
40	314	0.36	1.41	4.04	—
41	320	0.37	1.43	4.32	—

NOTE: Figures are accurate at time of publication. Maximum critical temperatures for fully loaded structural steel members are normally accepted at 550°C for four sided column protection and at 620°C for three sided beam protection as a support to composite concrete floors.



**Hp/A Ratio Table 6** Up to 120/-/- fire resistance in accordance with the requirements of **AS 1530: Part 4: 2005** (report no. FAR2751) for three sided 'I' section of structural steel beam protection (where the beam forms part of a composite action concrete of the floor slab) at critical temperature of 620°C

E (m <sup>2</sup> /t)	Hp/A	Cafco SPRAYFILM® WB3 coating thickness when cured / dry film thickness (mm)			
		30 minutes	60 minutes	90 minutes	120 minutes
6	47	0.23	0.25	1.20	1.20
7	55	0.23	0.25	1.20	1.20
8	63	0.23	0.25	1.20	1.20
9	71	0.23	0.25	1.20	1.28
10	79	0.23	0.27	1.20	1.33
11	86	0.23	0.30	1.20	1.44
12	94	0.23	0.32	1.20	1.49
13	102	0.23	0.36	1.20	1.78
14	110	0.23	0.38	1.20	1.94
15	118	0.23	0.42	1.20	2.10
16	126	0.23	0.46	1.25	2.23
17	133	0.23	0.48	1.28	2.30
18	141	0.23	0.52	1.34	2.43
19	149	0.23	0.54	1.37	2.49
20	157	0.23	0.57	1.43	2.62
21	165	0.23	0.57	1.46	2.69
22	173	0.23	0.61	1.54	2.82
23	181	0.23	0.67	1.66	2.95
24	188	0.23	0.70	1.72	3.01
25	196	0.23	0.76	1.84	3.33
26	204	0.23	0.80	1.90	3.48
27	212	0.24	0.86	2.02	3.79
28	220	0.24	0.88	2.07	3.94
29	228	0.24	0.91	2.17	4.57
30	236	0.25	0.94	2.27	5.29
31	243	0.25	0.96	2.32	5.64
32	251	0.25	0.99	2.42	—
33	259	0.25	1.00	2.47	—
34	267	0.26	1.04	2.57	—
35	275	0.27	1.05	2.62	—
36	283	0.28	1.08	2.72	—
37	291	0.29	1.11	2.82	—
38	299	0.30	1.13	2.87	—
39	307	0.31	1.16	2.97	—
40	315	0.31	1.18	3.02	—
41	320	0.32	1.19	3.22	—

NOTE: Figures are accurate at time of publication. Maximum critical temperatures for fully loaded structural steel members are normally accepted at 550°C for four sided column protection and at 620°C for three sided beam protection as a support to composite concrete floors.

**Hp/A Ratio Table 7** Up to 120/-/- fire resistance in accordance with the requirements of **AS 1530: Part 4: 2005** (report no. FAR977) for **four sided SHS, RHS and CHS structural steel sections protection at critical temperature of 550°C**

E (m <sup>2</sup> /t)	Hp/A	Caico SPRAYFILM® WB3 coating thickness when cured / dry film thickness (mm)			
		30 minutes	60 minutes	90 minutes	120 minutes
6	47	0.23	0.40	1.80	3.50
7	55	0.23	0.42	1.80	3.50
8	63	0.23	0.47	1.80	3.50
9	71	0.24	0.51	1.92	3.50
10	79	0.24	0.53	2.07	3.50
11	86	0.25	0.58	2.34	3.50
12	94	0.25	0.60	2.47	3.50
13	102	0.27	0.72	2.59	3.50
14	110	0.28	0.78	2.65	3.94
15	118	0.29	0.90	2.75	4.50
16	126	0.31	1.02	2.85	5.06
17	133	0.32	1.03	2.91	5.33
18	141	0.34	1.08	3.01	5.89
19	149	0.35	1.11	3.06	6.17
20	157	0.37	1.15	3.17	6.44
21	165	0.38	1.18	3.22	—
22	173	0.40	1.23	3.32	—
23	181	0.41	1.27	3.43	—
24	188	0.41	1.30	3.48	—
25	196	0.42	1.35	3.70	—
26	204	0.43	1.37	3.82	—
27	212	0.44	1.42	4.06	—
28	220	0.44	1.44	4.19	—
29	228	0.45	1.49	4.43	—
30	236	0.46	1.54	4.68	—
31	243	0.47	1.56	4.80	—
32	251	0.48	1.61	5.04	—
33	259	0.48	1.64	5.17	—
34	267	0.49	1.68	5.41	—
35	275	0.50	1.71	5.53	—
36	283	0.50	1.76	5.78	—
37	291	0.51	1.80	6.02	—
38	299	0.52	1.86	6.15	—
39	307	0.53	1.95	6.39	—
40	315	0.53	1.99	6.51	—
41	320	0.54	2.04	—	—

NOTE: Figures are accurate at time of publication. Maximum critical temperatures for fully loaded structural steel members are normally accepted at 550°C for four sided column protection and at 620°C for three sided beam protection as a support to composite concrete floors.

The following is a standard Architectural Specification for structural steel column and beam protection using Cafco SPRAYFILM® WB3. Please note that Cafco SPRAYFILM® WB3 should be installed by a trained or approved applicator using appropriate and recommended equipment. The end user must determine the suitability of any particular design to meet the performance requirements of any application before undertaking any work. If in doubt, please first obtain advice from Promat.

The installation methods described herein are suitable for steel sections up to 686mm deep and 325mm wide. For larger section, please consult Promat.

### Fire Exposure & Area of Application

Exposed faces of steelwork internal to building, for up to 120 minute fire resistance in accordance with the requirements of BS 476: Part 21: 1987 or AS 1530: Part 4: 2005.<sup>(1)</sup>

### Location

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<sup>(2)</sup>

### Type of Construction

\_\_\_\_\_ minute<sup>(3)</sup> fire resistance to Cafco SPRAYFILM® WB3 one sided, two sided, three sided or four sided coating of structural steel columns and beams.

### Spray Materials

Cafco SPRAYFILM® WB3 in 25kg pail containers as supplied by licensed manufacturers of Promat International (Asia Pacific) Ltd.

### Surface Preparation

The substrate to be coated should be clean, dry and free from dust, or any other condition preventing good adhesion. When applied over a primer, please consult Promat for compatibility.

The substrate to be coated should be clean, dry and free from dust, or any other condition preventing good adhesion, as such priming is highly recommended. Please consult Promat and refer to application documents for the approved range of primers and top seals.

### Method of Application

Cafco SPRAYFILM® WB3 is supplied ready for use in sealed containers and generally does not need to be diluted. The material should be thoroughly stirred with a rotar type mixer prior to application.

The application of Cafco SPRAYFILM® WB3 is recommended by using an airless spray pump.

### Follow-on Trades

Surface of coating materials to be finished off smoothly or with suitable top coat<sup>(4)</sup> in accordance with manufacturer's recommendations.

#### NOTE:

- <sup>(1), (4)</sup> delete as appropriate.
- <sup>(2)</sup> insert location, e.g. "beams and columns to offices interior", or provide steelwork drawing reference.
- <sup>(3)</sup> insert required fire resistance level (not exceeding 120 minutes).

For latest information of the Promat Asia Pacific organisation, please refer to [www.promat-ap.com](http://www.promat-ap.com).

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