



SC901 & SC902

Loading Tables

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Table I: I/H Sections - 3 Sided Beams
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Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
60	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
65	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
70	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
75	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
80	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
85	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
90	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
95	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
100	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
105	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
110	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
115	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
120	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
125	0.453	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
130	0.466	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
135	0.480	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
140	0.494	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
145	0.508	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
150	0.521	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
155	0.535	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
160	0.549	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
165	0.563	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
170	0.576	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
175	0.590	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
180	0.604	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
185	0.618	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
190	0.631	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
195	0.645	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
200	0.659	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Fire Resistance Period: 15 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	0.673	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
210	0.686	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
215	0.700	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
220	0.714	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
225	0.727	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
230	0.741	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
235	0.755	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
240	0.769	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
245	0.782	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
250	0.796	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
255	0.810	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
260	0.824	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
265	0.837	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
270	0.851	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
275	0.865	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
280	0.879	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
285	0.892	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
290	0.906	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
295	0.920	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
300	0.934	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
305	0.947	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
310	0.961	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
315	0.975	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
320	0.989	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
325	1.002	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
330	1.016	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
335	1.030	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
340	1.044	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
345	1.057	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
350	1.071	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
355	1.085	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
360	1.099	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
365	1.112	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
370	1.126	0.463	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
375	1.140	0.478	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
380	1.154	0.492	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Fire Resistance Period: 30 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
60	0.466	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
65	0.514	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
70	0.563	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
75	0.611	0.453	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
80	0.659	0.470	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
85	0.707	0.488	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
90	0.755	0.505	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
95	0.803	0.522	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
100	0.851	0.540	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
105	0.900	0.557	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
110	0.948	0.575	0.462	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
115	0.996	0.592	0.477	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
120	1.044	0.610	0.491	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
125	1.092	0.627	0.506	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
130	1.140	0.644	0.520	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
135	1.188	0.662	0.535	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
140	1.236	0.679	0.549	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
145	1.275	0.697	0.564	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
150	1.308	0.714	0.579	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
155	1.342	0.732	0.593	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
160	1.375	0.749	0.608	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
165	1.408	0.766	0.622	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
170	1.441	0.784	0.637	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
175	1.475	0.801	0.651	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
180	1.508	0.819	0.666	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
185	1.541	0.836	0.681	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
190	1.575	0.854	0.695	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
195	1.608	0.871	0.710	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
200	1.641	0.888	0.724	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452

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Fire Resistance Period: 30 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	D F T (mm)
205	1.675	0.906	0.739	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
210	1.708	0.923	0.753	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
215	1.741	0.941	0.768	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
220	1.775	0.958	0.782	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
225	1.808	0.975	0.797	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
230	1.841	0.993	0.812	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
235	1.875	1.010	0.826	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
240	1.908	1.028	0.841	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
245	1.941	1.045	0.855	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
250	1.975	1.063	0.870	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
255	2.012	1.080	0.884	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
260	2.066	1.097	0.899	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
265	2.120	1.115	0.914	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
270	2.174	1.132	0.928	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
275	2.227	1.150	0.943	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
280	2.281	1.167	0.957	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
285	2.335	1.185	0.972	0.469	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
290	2.389	1.202	0.986	0.491	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
295	2.442	1.219	1.001	0.514	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
300	2.496	1.237	1.016	0.536	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
305	2.550	1.255	1.030	0.558	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
310	2.604	1.287	1.045	0.581	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
315	2.657	1.318	1.059	0.603	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
320	2.711	1.350	1.074	0.625	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
325	2.765	1.381	1.088	0.648	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
330	2.818	1.413	1.103	0.670	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
335	2.872	1.445	1.117	0.692	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
340	2.926	1.476	1.132	0.714	0.460	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
345	2.980	1.508	1.147	0.737	0.479	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
350	3.033	1.539	1.161	0.759	0.498	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
355	3.087	1.571	1.176	0.781	0.517	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
360	3.141	1.602	1.190	0.804	0.536	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
365	3.195	1.634	1.205	0.826	0.555	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
370	3.248	1.665	1.219	0.848	0.574	0.456	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
375	3.302	1.697	1.234	0.871	0.592	0.473	0.468	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
380	3.356	1.728	1.249	0.893	0.611	0.490	0.485	0.454	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 3: I/H Sections - 3 Sided Beams
Fire Resistance Period: 45 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.904	0.515	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
60	1.073	0.578	0.472	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
65	1.243	0.640	0.495	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
70	1.312	0.703	0.517	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
75	1.374	0.765	0.539	0.467	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
80	1.436	0.828	0.562	0.485	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
85	1.498	0.890	0.584	0.503	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
90	1.561	0.953	0.607	0.520	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
95	1.623	1.015	0.629	0.538	0.466	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
100	1.685	1.078	0.651	0.556	0.482	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
105	1.748	1.140	0.674	0.574	0.497	0.460	0.458	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
110	1.810	1.203	0.696	0.591	0.513	0.475	0.473	0.462	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
115	1.872	1.258	0.719	0.609	0.529	0.489	0.488	0.476	0.465	0.452	0.452	0.452	0.452	0.452	0.452	0.452
120	1.934	1.283	0.741	0.627	0.544	0.504	0.502	0.490	0.479	0.461	0.456	0.452	0.452	0.452	0.452	0.452
125	1.997	1.308	0.763	0.645	0.560	0.519	0.517	0.505	0.493	0.475	0.470	0.466	0.452	0.452	0.452	0.452
130	2.060	1.333	0.786	0.662	0.575	0.533	0.531	0.519	0.507	0.489	0.483	0.479	0.452	0.452	0.452	0.452
135	2.124	1.358	0.808	0.680	0.591	0.548	0.546	0.534	0.522	0.503	0.497	0.493	0.459	0.452	0.452	0.452
140	2.187	1.383	0.831	0.698	0.606	0.563	0.561	0.548	0.536	0.517	0.511	0.507	0.472	0.452	0.452	0.452
145	2.251	1.408	0.853	0.716	0.622	0.577	0.575	0.562	0.550	0.531	0.525	0.521	0.486	0.452	0.452	0.452
150	2.314	1.433	0.876	0.733	0.637	0.592	0.590	0.577	0.564	0.545	0.539	0.535	0.499	0.452	0.452	0.452
155	2.378	1.458	0.898	0.751	0.653	0.607	0.604	0.591	0.579	0.559	0.553	0.548	0.512	0.452	0.452	0.452
160	2.441	1.483	0.920	0.769	0.669	0.621	0.619	0.606	0.593	0.573	0.567	0.562	0.526	0.452	0.452	0.452
165	2.505	1.508	0.943	0.787	0.684	0.636	0.634	0.620	0.607	0.587	0.580	0.576	0.539	0.452	0.452	0.452
170	2.568	1.534	0.965	0.804	0.700	0.650	0.648	0.635	0.621	0.601	0.594	0.590	0.553	0.452	0.452	0.452
175	2.632	1.559	0.988	0.822	0.715	0.665	0.663	0.649	0.635	0.615	0.608	0.604	0.566	0.452	0.452	0.452
180	2.695	1.584	1.010	0.840	0.731	0.680	0.678	0.663	0.650	0.628	0.622	0.617	0.580	0.452	0.452	0.452
185	2.759	1.609	1.032	0.858	0.746	0.694	0.692	0.678	0.664	0.642	0.636	0.631	0.593	0.452	0.452	0.452
190	2.822	1.634	1.055	0.875	0.762	0.709	0.707	0.692	0.678	0.656	0.650	0.645	0.607	0.452	0.452	0.452
195	2.886	1.659	1.077	0.893	0.777	0.724	0.721	0.707	0.692	0.670	0.664	0.659	0.620	0.452	0.452	0.452
200	2.949	1.684	1.100	0.911	0.793	0.738	0.736	0.721	0.707	0.684	0.677	0.673	0.634	0.452	0.452	0.452

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 3: I/H Sections - 3 Sided Beams
Fire Resistance Period: 45 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	3.013	1.709	1.122	0.929	0.808	0.753	0.751	0.735	0.721	0.698	0.691	0.686	0.647	0.452	0.452	0.452
210	3.077	1.734	1.144	0.946	0.824	0.768	0.765	0.750	0.735	0.712	0.705	0.700	0.661	0.452	0.452	0.452
215	3.140	1.759	1.167	0.964	0.840	0.782	0.780	0.764	0.749	0.726	0.719	0.714	0.674	0.452	0.452	0.452
220	3.204	1.784	1.189	0.982	0.855	0.797	0.795	0.779	0.763	0.740	0.733	0.728	0.688	0.452	0.452	0.452
225	3.267	1.809	1.212	1.000	0.871	0.812	0.809	0.793	0.778	0.754	0.747	0.742	0.701	0.452	0.452	0.452
230	3.331	1.834	1.234	1.017	0.886	0.826	0.824	0.808	0.792	0.768	0.761	0.755	0.715	0.452	0.452	0.452
235	3.394	1.859	1.259	1.035	0.902	0.841	0.838	0.822	0.806	0.782	0.774	0.769	0.728	0.452	0.452	0.452
240	3.458	1.884	1.296	1.053	0.917	0.856	0.853	0.836	0.820	0.796	0.788	0.783	0.742	0.452	0.452	0.452
245	3.518	1.910	1.332	1.071	0.933	0.870	0.868	0.851	0.835	0.810	0.802	0.797	0.755	0.452	0.452	0.452
250	3.558	1.935	1.369	1.088	0.948	0.885	0.882	0.865	0.849	0.824	0.816	0.811	0.769	0.452	0.452	0.452
255	3.599	1.960	1.406	1.106	0.964	0.899	0.897	0.880	0.863	0.838	0.830	0.824	0.782	0.452	0.452	0.452
260	3.640	1.985	1.443	1.124	0.980	0.914	0.911	0.894	0.877	0.851	0.844	0.838	0.796	0.452	0.452	0.452
265	3.680	2.017	1.480	1.142	0.995	0.929	0.926	0.908	0.891	0.865	0.858	0.852	0.809	0.452	0.452	0.452
270	3.721	2.064	1.517	1.159	1.011	0.943	0.941	0.923	0.906	0.879	0.871	0.866	0.823	0.452	0.452	0.452
275	3.761	2.110	1.554	1.177	1.026	0.958	0.955	0.937	0.920	0.893	0.885	0.880	0.836	0.452	0.452	0.452
280	3.802	2.156	1.590	1.195	1.042	0.973	0.970	0.952	0.934	0.907	0.899	0.893	0.849	0.452	0.452	0.452
285	3.842	2.202	1.627	1.213	1.057	0.987	0.985	0.966	0.948	0.921	0.913	0.907	0.863	0.452	0.452	0.452
290	3.883	2.249	1.664	1.230	1.073	1.002	0.999	0.981	0.962	0.935	0.927	0.921	0.876	0.458	0.452	0.452
295	3.924	2.295	1.701	1.248	1.088	1.017	1.014	0.995	0.977	0.949	0.941	0.935	0.890	0.480	0.452	0.452
300	3.964	2.341	1.738	1.280	1.104	1.031	1.028	1.009	0.991	0.963	0.955	0.949	0.903	0.502	0.452	0.452
305	4.005	2.387	1.775	1.317	1.119	1.046	1.043	1.024	1.005	0.977	0.968	0.962	0.917	0.524	0.452	0.452
310	4.045	2.434	1.812	1.354	1.135	1.061	1.058	1.038	1.019	0.991	0.982	0.976	0.930	0.546	0.452	0.452
315	4.086	2.480	1.849	1.391	1.151	1.075	1.072	1.053	1.034	1.005	0.996	0.990	0.944	0.567	0.452	0.452
320	4.126	2.526	1.885	1.427	1.166	1.090	1.087	1.067	1.048	1.019	1.010	1.004	0.957	0.589	0.452	0.452
325	4.167	2.573	1.922	1.464	1.182	1.105	1.101	1.081	1.062	1.033	1.024	1.018	0.971	0.611	0.452	0.452
330	4.208	2.619	1.959	1.501	1.197	1.119	1.116	1.096	1.076	1.047	1.038	1.031	0.984	0.633	0.452	0.452
335	4.248	2.665	1.996	1.538	1.213	1.134	1.131	1.110	1.090	1.061	1.052	1.045	0.998	0.655	0.452	0.452
340	4.289	2.711	2.040	1.575	1.228	1.149	1.145	1.125	1.105	1.075	1.065	1.059	1.011	0.676	0.457	0.452
345	4.329	2.758	2.084	1.612	1.244	1.163	1.160	1.139	1.119	1.088	1.079	1.073	1.025	0.698	0.474	0.452
350	4.370	2.804	2.129	1.649	1.267	1.178	1.175	1.154	1.133	1.102	1.093	1.087	1.038	0.720	0.492	0.452
355	4.410	2.850	2.174	1.686	1.300	1.192	1.189	1.168	1.147	1.116	1.107	1.100	1.052	0.742	0.509	0.452
360	4.451	2.896	2.219	1.722	1.333	1.207	1.204	1.182	1.162	1.130	1.121	1.114	1.065	0.764	0.526	0.452
365	4.491	2.943	2.263	1.759	1.367	1.222	1.218	1.197	1.176	1.144	1.135	1.128	1.079	0.785	0.544	0.452
370	4.532	2.989	2.308	1.796	1.400	1.236	1.233	1.211	1.190	1.158	1.149	1.142	1.092	0.807	0.561	0.452
375	4.573	3.035	2.353	1.833	1.433	1.251	1.248	1.226	1.204	1.172	1.162	1.156	1.106	0.829	0.579	0.452
380	4.613	3.082	2.397	1.870	1.467	1.281	1.273	1.240	1.218	1.186	1.176	1.169	1.119	0.851	0.596	0.452

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 4: I/H Sections - 3 Sided Beams
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	1.472	0.937	0.668	0.509	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452	0.452
60	1.585	1.069	0.756	0.541	0.489	0.467	0.466	0.460	0.454	0.452	0.452	0.452	0.452	0.452	0.452	0.452
65	1.697	1.200	0.844	0.574	0.509	0.486	0.485	0.478	0.472	0.463	0.460	0.458	0.452	0.452	0.452	0.452
70	1.809	1.283	0.932	0.606	0.529	0.504	0.503	0.496	0.490	0.480	0.477	0.475	0.460	0.452	0.452	0.452
75	1.921	1.333	1.020	0.638	0.549	0.522	0.521	0.514	0.508	0.498	0.495	0.493	0.476	0.452	0.452	0.452
80	2.035	1.383	1.108	0.670	0.569	0.541	0.540	0.532	0.526	0.515	0.512	0.510	0.493	0.459	0.452	0.452
85	2.152	1.433	1.195	0.702	0.589	0.559	0.558	0.551	0.543	0.532	0.529	0.527	0.509	0.474	0.452	0.452
90	2.269	1.483	1.263	0.734	0.609	0.578	0.576	0.569	0.561	0.550	0.546	0.544	0.526	0.490	0.452	0.452
95	2.387	1.533	1.292	0.766	0.630	0.596	0.595	0.587	0.579	0.567	0.564	0.561	0.543	0.505	0.452	0.452
100	2.504	1.583	1.321	0.798	0.650	0.615	0.613	0.605	0.597	0.585	0.581	0.579	0.559	0.521	0.452	0.452
105	2.621	1.633	1.351	0.830	0.670	0.633	0.632	0.623	0.615	0.602	0.598	0.596	0.576	0.537	0.457	0.452
110	2.738	1.683	1.380	0.862	0.690	0.651	0.650	0.641	0.632	0.619	0.616	0.613	0.593	0.552	0.471	0.452
115	2.855	1.733	1.409	0.894	0.710	0.670	0.668	0.659	0.650	0.637	0.633	0.630	0.609	0.568	0.485	0.452
120	2.973	1.783	1.438	0.926	0.730	0.688	0.687	0.677	0.668	0.654	0.650	0.647	0.626	0.583	0.499	0.452
125	3.090	1.833	1.467	0.958	0.750	0.707	0.705	0.695	0.686	0.672	0.667	0.665	0.642	0.599	0.513	0.452
130	3.207	1.883	1.497	0.990	0.770	0.725	0.723	0.713	0.704	0.689	0.685	0.682	0.659	0.614	0.526	0.452
135	3.324	1.933	1.526	1.022	0.790	0.744	0.742	0.731	0.721	0.706	0.702	0.699	0.676	0.630	0.540	0.452
140	3.442	1.983	1.555	1.054	0.811	0.762	0.760	0.749	0.739	0.724	0.719	0.716	0.692	0.645	0.554	0.452
145	3.529	2.032	1.584	1.086	0.831	0.780	0.779	0.768	0.757	0.741	0.737	0.733	0.709	0.661	0.568	0.452
150	3.572	2.080	1.613	1.118	0.851	0.799	0.797	0.786	0.775	0.759	0.754	0.750	0.725	0.677	0.582	0.452
155	3.615	2.128	1.643	1.150	0.871	0.817	0.815	0.804	0.793	0.776	0.771	0.768	0.742	0.692	0.596	0.452
160	3.658	2.176	1.672	1.182	0.891	0.836	0.834	0.822	0.810	0.793	0.788	0.785	0.759	0.708	0.609	0.452
165	3.701	2.224	1.701	1.214	0.911	0.854	0.852	0.840	0.828	0.811	0.806	0.802	0.775	0.723	0.623	0.452
170	3.744	2.272	1.730	1.246	0.931	0.872	0.870	0.858	0.846	0.828	0.823	0.819	0.792	0.739	0.637	0.452
175	3.787	2.320	1.759	1.280	0.951	0.891	0.889	0.876	0.864	0.846	0.840	0.836	0.809	0.754	0.651	0.452
180	3.829	2.368	1.789	1.314	0.971	0.909	0.907	0.894	0.882	0.863	0.857	0.854	0.825	0.770	0.665	0.452
185	3.872	2.416	1.818	1.349	0.992	0.928	0.926	0.912	0.900	0.880	0.875	0.871	0.842	0.785	0.679	0.452
190	3.915	2.464	1.847	1.383	1.012	0.946	0.944	0.930	0.917	0.898	0.892	0.888	0.858	0.801	0.692	0.452
195	3.958	2.512	1.876	1.417	1.032	0.965	0.962	0.948	0.935	0.915	0.909	0.905	0.875	0.817	0.706	0.452
200	4.001	2.560	1.905	1.451	1.052	0.983	0.981	0.967	0.953	0.933	0.927	0.922	0.892	0.832	0.720	0.452

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 4: I/H Sections - 3 Sided Beams
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	4.044	2.608	1.935	1.486	1.072	1.001	0.999	0.985	0.971	0.950	0.944	0.940	0.908	0.848	0.734	0.452
210	4.087	2.656	1.964	1.520	1.092	1.020	1.017	1.003	0.989	0.967	0.961	0.957	0.925	0.863	0.748	0.452
215	4.130	2.704	1.993	1.554	1.112	1.038	1.036	1.021	1.006	0.985	0.978	0.974	0.942	0.879	0.762	0.452
220	4.173	2.751	2.036	1.588	1.132	1.057	1.054	1.039	1.024	1.002	0.996	0.991	0.958	0.894	0.776	0.452
225	4.215	2.799	2.084	1.623	1.152	1.075	1.073	1.057	1.042	1.020	1.013	1.008	0.975	0.910	0.789	0.454
230	4.258	2.847	2.132	1.657	1.173	1.093	1.091	1.075	1.060	1.037	1.030	1.026	0.991	0.925	0.803	0.470
235	4.301	2.895	2.179	1.691	1.193	1.112	1.109	1.093	1.078	1.054	1.048	1.043	1.008	0.941	0.817	0.486
240	4.344	2.943	2.227	1.725	1.213	1.130	1.128	1.111	1.095	1.072	1.065	1.060	1.025	0.957	0.831	0.502
245	4.387	2.991	2.275	1.760	1.233	1.149	1.146	1.129	1.113	1.089	1.082	1.077	1.041	0.972	0.845	0.518
250	4.430	3.039	2.323	1.794	1.253	1.167	1.164	1.147	1.131	1.107	1.099	1.094	1.058	0.988	0.859	0.535
255	4.473	3.087	2.371	1.828	1.298	1.186	1.183	1.165	1.149	1.124	1.117	1.112	1.075	1.003	0.872	0.551
260	4.516	3.135	2.419	1.862	1.343	1.204	1.201	1.184	1.167	1.141	1.134	1.129	1.091	1.019	0.886	0.567
265	4.559	3.183	2.467	1.897	1.388	1.222	1.220	1.202	1.184	1.159	1.151	1.146	1.108	1.034	0.900	0.583
270	4.602	3.231	2.515	1.931	1.432	1.241	1.238	1.220	1.202	1.176	1.169	1.163	1.124	1.050	0.914	0.599
275	4.644	3.279	2.563	1.965	1.477	1.268	1.261	1.238	1.220	1.194	1.186	1.180	1.141	1.065	0.928	0.615
280	4.687	3.327	2.611	1.999	1.522	1.311	1.304	1.260	1.238	1.211	1.203	1.198	1.158	1.081	0.942	0.631
285	4.730	3.375	2.659	2.053	1.567	1.355	1.348	1.303	1.259	1.228	1.220	1.215	1.174	1.097	0.955	0.647
290	4.773	3.423	2.707	2.108	1.612	1.399	1.391	1.345	1.301	1.246	1.238	1.232	1.191	1.112	0.969	0.663
295	4.816	3.471	2.755	2.163	1.657	1.442	1.435	1.388	1.343	1.277	1.258	1.249	1.208	1.128	0.983	0.679
300	4.859	3.521	2.803	2.218	1.701	1.486	1.478	1.431	1.385	1.318	1.298	1.284	1.224	1.143	0.997	0.695
305	4.902	3.582	2.851	2.273	1.746	1.530	1.522	1.474	1.427	1.359	1.339	1.325	1.241	1.159	1.011	0.711
310	4.945	3.643	2.899	2.328	1.791	1.573	1.565	1.516	1.469	1.400	1.380	1.365	1.263	1.174	1.025	0.728
315	4.988	3.704	2.947	2.383	1.836	1.617	1.609	1.559	1.511	1.441	1.420	1.406	1.302	1.190	1.038	0.744
320	5.030	3.764	2.995	2.437	1.881	1.660	1.652	1.602	1.553	1.482	1.461	1.447	1.341	1.205	1.052	0.760
325	5.073	3.825	3.043	2.492	1.926	1.704	1.696	1.645	1.595	1.523	1.502	1.487	1.379	1.221	1.066	0.776
330	5.116	3.886	3.091	2.547	1.970	1.748	1.739	1.687	1.637	1.564	1.543	1.528	1.418	1.237	1.080	0.792
335	5.159	3.947	3.139	2.602	2.019	1.791	1.783	1.730	1.679	1.605	1.583	1.568	1.456	1.252	1.094	0.808
340	5.202	4.008	3.187	2.657	2.075	1.835	1.826	1.773	1.721	1.646	1.624	1.609	1.495	1.286	1.108	0.824
345	5.245	4.069	3.234	2.712	2.132	1.878	1.870	1.816	1.763	1.687	1.665	1.649	1.534	1.321	1.122	0.840
350	5.288	4.130	3.282	2.767	2.188	1.922	1.913	1.858	1.805	1.728	1.705	1.690	1.572	1.357	1.135	0.856
355	5.331	4.191	3.330	2.822	2.244	1.966	1.957	1.901	1.847	1.769	1.746	1.730	1.611	1.392	1.149	0.872
360	5.374	4.252	3.378	2.877	2.301	2.012	2.000	1.944	1.889	1.810	1.787	1.771	1.650	1.427	1.163	0.888
365	-	4.313	3.426	2.931	2.357	2.068	2.056	1.987	1.931	1.851	1.828	1.812	1.688	1.463	1.177	0.905
370	-	4.374	3.474	2.986	2.414	2.124	2.112	2.038	1.973	1.892	1.868	1.852	1.727	1.498	1.191	0.921
375	-	4.435	3.528	3.041	2.470	2.180	2.168	2.094	2.019	1.933	1.909	1.893	1.765	1.533	1.205	0.937
380	-	4.496	3.601	3.096	2.526	2.236	2.224	2.149	2.074	1.974	1.950	1.933	1.804	1.569	1.218	0.953

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 5: I/H Sections - 3 Sided Beams
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	1.939	1.312	1.014	0.792	0.648	0.542	0.540	0.532	0.525	0.515	0.513	0.511	0.452	0.452	0.452	0.452
60	2.168	1.399	1.134	0.880	0.695	0.576	0.574	0.564	0.555	0.543	0.540	0.538	0.520	0.496	0.452	0.452
65	2.445	1.485	1.254	0.969	0.743	0.610	0.607	0.595	0.585	0.571	0.567	0.565	0.544	0.515	0.467	0.452
70	2.722	1.571	1.305	1.058	0.791	0.644	0.641	0.627	0.615	0.599	0.595	0.591	0.568	0.534	0.484	0.452
75	2.999	1.658	1.357	1.146	0.839	0.678	0.674	0.658	0.645	0.627	0.622	0.618	0.592	0.553	0.500	0.452
80	3.276	1.744	1.408	1.235	0.886	0.712	0.708	0.690	0.675	0.655	0.649	0.645	0.616	0.572	0.517	0.452
85	3.518	1.830	1.460	1.280	0.934	0.746	0.741	0.721	0.705	0.682	0.676	0.672	0.640	0.591	0.534	0.467
90	3.555	1.917	1.511	1.314	0.982	0.780	0.774	0.753	0.735	0.710	0.704	0.699	0.664	0.610	0.551	0.482
95	3.592	2.003	1.563	1.348	1.029	0.814	0.808	0.784	0.765	0.738	0.731	0.726	0.687	0.629	0.567	0.496
100	3.630	2.098	1.614	1.381	1.077	0.848	0.841	0.816	0.795	0.766	0.758	0.753	0.711	0.648	0.584	0.511
105	3.667	2.193	1.666	1.415	1.125	0.882	0.875	0.847	0.825	0.794	0.785	0.779	0.735	0.667	0.601	0.526
110	3.704	2.287	1.717	1.449	1.173	0.916	0.908	0.879	0.855	0.822	0.813	0.806	0.759	0.686	0.618	0.540
115	3.742	2.382	1.769	1.483	1.220	0.950	0.942	0.910	0.884	0.850	0.840	0.833	0.783	0.704	0.634	0.555
120	3.779	2.477	1.820	1.517	1.262	0.984	0.975	0.941	0.914	0.877	0.867	0.860	0.807	0.723	0.651	0.570
125	3.817	2.571	1.872	1.551	1.293	1.019	1.009	0.973	0.944	0.905	0.895	0.887	0.830	0.742	0.668	0.585
130	3.854	2.666	1.923	1.584	1.323	1.053	1.042	1.004	0.974	0.933	0.922	0.914	0.854	0.761	0.685	0.599
135	3.891	2.761	1.975	1.618	1.353	1.087	1.075	1.036	1.004	0.961	0.949	0.941	0.878	0.780	0.701	0.614
140	3.929	2.855	2.033	1.652	1.383	1.121	1.109	1.067	1.034	0.989	0.976	0.968	0.902	0.799	0.718	0.629
145	3.966	2.950	2.097	1.686	1.413	1.155	1.142	1.099	1.064	1.017	1.004	0.994	0.926	0.818	0.735	0.643
150	4.004	3.045	2.161	1.720	1.444	1.189	1.176	1.130	1.094	1.044	1.031	1.021	0.950	0.837	0.752	0.658
155	4.041	3.139	2.226	1.754	1.474	1.223	1.209	1.162	1.124	1.072	1.058	1.048	0.974	0.856	0.768	0.673
160	4.078	3.234	2.290	1.787	1.504	1.257	1.243	1.193	1.154	1.100	1.086	1.075	0.997	0.875	0.785	0.687
165	4.116	3.329	2.355	1.821	1.534	1.291	1.277	1.225	1.184	1.128	1.113	1.102	1.021	0.894	0.802	0.702
170	4.153	3.423	2.419	1.855	1.564	1.325	1.312	1.257	1.214	1.156	1.140	1.129	1.045	0.913	0.819	0.717
175	4.190	3.515	2.483	1.889	1.594	1.360	1.346	1.292	1.243	1.184	1.167	1.156	1.069	0.932	0.835	0.731
180	4.228	3.562	2.548	1.923	1.625	1.394	1.381	1.327	1.278	1.212	1.195	1.182	1.093	0.950	0.852	0.746
185	4.265	3.610	2.612	1.957	1.655	1.428	1.416	1.363	1.313	1.239	1.222	1.209	1.117	0.969	0.869	0.761
190	4.303	3.657	2.676	1.990	1.685	1.463	1.450	1.398	1.349	1.272	1.249	1.236	1.140	0.988	0.886	0.775
195	4.340	3.705	2.741	2.038	1.715	1.497	1.485	1.434	1.385	1.309	1.285	1.267	1.164	1.007	0.902	0.790
200	4.377	3.752	2.805	2.092	1.745	1.531	1.520	1.469	1.421	1.345	1.322	1.304	1.188	1.026	0.919	0.805

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 5: I/H Sections - 3 Sided Beams
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	4.415	3.800	2.869	2.147	1.775	1.565	1.554	1.504	1.457	1.382	1.359	1.341	1.212	1.045	0.936	0.820
210	4.452	3.847	2.934	2.201	1.806	1.600	1.589	1.540	1.493	1.419	1.396	1.379	1.236	1.064	0.953	0.834
215	4.490	3.895	2.998	2.255	1.836	1.634	1.624	1.575	1.529	1.455	1.433	1.416	1.264	1.083	0.969	0.849
220	4.527	3.942	3.062	2.309	1.866	1.668	1.659	1.611	1.565	1.492	1.470	1.453	1.304	1.102	0.986	0.864
225	4.564	3.990	3.127	2.364	1.896	1.702	1.693	1.646	1.601	1.529	1.507	1.490	1.343	1.121	1.003	0.878
230	4.602	4.037	3.191	2.418	1.926	1.737	1.728	1.681	1.637	1.566	1.544	1.528	1.383	1.140	1.020	0.893
235	4.639	4.085	3.255	2.472	1.956	1.771	1.763	1.717	1.673	1.602	1.581	1.565	1.422	1.159	1.036	0.908
240	4.676	4.132	3.320	2.526	1.987	1.805	1.797	1.752	1.709	1.639	1.618	1.602	1.462	1.177	1.053	0.922
245	4.714	4.180	3.384	2.581	2.032	1.840	1.832	1.788	1.745	1.676	1.655	1.639	1.501	1.196	1.070	0.937
250	4.751	4.227	3.448	2.635	2.092	1.874	1.867	1.823	1.781	1.712	1.692	1.677	1.541	1.215	1.087	0.952
255	4.789	4.275	3.513	2.689	2.152	1.908	1.901	1.858	1.816	1.749	1.728	1.714	1.580	1.234	1.103	0.966
260	4.826	4.322	3.575	2.743	2.212	1.942	1.936	1.894	1.852	1.786	1.765	1.751	1.620	1.253	1.120	0.981
265	4.863	4.370	3.636	2.797	2.272	1.977	1.971	1.929	1.888	1.823	1.802	1.788	1.660	1.300	1.137	0.996
270	4.901	4.417	3.698	2.852	2.332	2.019	2.009	1.965	1.924	1.859	1.839	1.825	1.699	1.346	1.154	1.010
275	4.938	4.465	3.760	2.906	2.392	2.083	2.072	2.000	1.960	1.896	1.876	1.863	1.739	1.393	1.170	1.025
280	4.975	4.512	3.822	2.960	2.452	2.146	2.136	2.062	1.996	1.933	1.913	1.900	1.778	1.439	1.187	1.040
285	5.013	4.560	3.884	3.014	2.512	2.209	2.199	2.126	2.056	1.970	1.950	1.937	1.818	1.486	1.204	1.055
290	5.050	4.607	3.946	3.069	2.572	2.272	2.262	2.189	2.119	2.010	1.987	1.974	1.857	1.532	1.221	1.069
295	5.088	4.655	4.007	3.123	2.632	2.336	2.325	2.252	2.182	2.073	2.041	2.019	1.897	1.578	1.237	1.084
300	5.125	4.702	4.069	3.177	2.692	2.399	2.388	2.316	2.246	2.137	2.104	2.083	1.936	1.625	1.255	1.099
305	5.162	4.750	4.131	3.231	2.752	2.462	2.452	2.379	2.309	2.200	2.168	2.146	1.976	1.671	1.295	1.113
310	5.200	4.797	4.193	3.286	2.812	2.525	2.515	2.443	2.372	2.264	2.231	2.210	2.024	1.718	1.335	1.128
315	5.237	4.845	4.255	3.340	2.872	2.589	2.578	2.506	2.436	2.327	2.295	2.273	2.089	1.764	1.375	1.143
320	5.275	4.892	4.316	3.394	2.932	2.652	2.641	2.569	2.499	2.390	2.358	2.337	2.153	1.811	1.415	1.157
325	5.312	4.940	4.378	3.448	2.992	2.715	2.705	2.633	2.562	2.454	2.422	2.400	2.217	1.857	1.455	1.172
330	5.349	4.987	4.440	3.502	3.051	2.778	2.768	2.696	2.626	2.517	2.485	2.464	2.281	1.903	1.495	1.187
335	-	5.035	4.502	3.589	3.111	2.842	2.831	2.759	2.689	2.581	2.549	2.527	2.345	1.950	1.535	1.201
340	-	5.082	4.564	3.683	3.171	2.905	2.894	2.823	2.752	2.644	2.612	2.591	2.410	1.996	1.575	1.216
345	-	5.129	4.625	3.777	3.231	2.968	2.958	2.886	2.816	2.708	2.676	2.654	2.474	2.061	1.615	1.231
350	-	5.177	4.687	3.871	3.291	3.031	3.021	2.949	2.879	2.771	2.739	2.718	2.538	2.127	1.655	1.245
355	-	5.224	4.749	3.965	3.351	3.095	3.084	3.013	2.942	2.834	2.803	2.781	2.602	2.193	1.695	1.270
360	-	5.272	4.811	4.059	3.411	3.158	3.147	3.076	3.006	2.898	2.866	2.845	2.666	2.259	1.735	1.305
365	-	5.319	4.873	4.153	3.471	3.221	3.210	3.139	3.069	2.961	2.929	2.908	2.731	2.325	1.775	1.340
370	-	5.367	4.935	4.247	3.544	3.284	3.274	3.203	3.132	3.025	2.993	2.972	2.795	2.391	1.815	1.375
375	-	5.414	4.996	4.340	3.644	3.348	3.337	3.266	3.196	3.088	3.056	3.035	2.859	2.457	1.854	1.410
380	-	-	5.058	4.434	3.745	3.411	3.400	3.329	3.259	3.151	3.120	3.099	2.923	2.523	1.894	1.446

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 6: I/H Sections - 3 Sided Beams
Fire Resistance Period: 90 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	3.323	1.723	1.313	1.085	0.889	0.811	0.808	0.788	0.770	0.744	0.738	0.733	0.695	0.561	0.452	0.452
60	3.625	1.836	1.394	1.202	0.979	0.892	0.888	0.866	0.846	0.815	0.805	0.799	0.747	0.599	0.523	0.475
65	-	1.948	1.476	1.284	1.070	0.973	0.969	0.944	0.921	0.885	0.872	0.864	0.799	0.636	0.547	0.493
70	-	2.123	1.557	1.340	1.160	1.053	1.049	1.022	0.997	0.955	0.939	0.929	0.852	0.674	0.570	0.511
75	-	2.355	1.639	1.395	1.251	1.134	1.129	1.100	1.072	1.025	1.007	0.994	0.904	0.712	0.594	0.528
80	-	2.587	1.720	1.450	1.291	1.215	1.210	1.178	1.148	1.096	1.074	1.059	0.956	0.749	0.617	0.546
85	-	2.818	1.802	1.506	1.329	1.271	1.268	1.254	1.223	1.166	1.141	1.124	1.009	0.787	0.641	0.563
90	-	3.050	1.883	1.561	1.367	1.304	1.302	1.287	1.272	1.236	1.208	1.189	1.061	0.825	0.665	0.581
95	-	3.282	1.965	1.617	1.406	1.338	1.335	1.319	1.303	1.276	1.263	1.254	1.113	0.862	0.688	0.599
100	-	3.512	2.061	1.672	1.444	1.371	1.369	1.351	1.335	1.306	1.293	1.284	1.166	0.900	0.712	0.616
105	-	3.552	2.168	1.727	1.483	1.405	1.402	1.384	1.366	1.337	1.323	1.314	1.218	0.937	0.735	0.634
110	-	3.591	2.276	1.783	1.521	1.438	1.435	1.416	1.398	1.367	1.353	1.344	1.263	0.975	0.759	0.651
115	-	3.630	2.384	1.838	1.560	1.472	1.469	1.449	1.429	1.397	1.384	1.374	1.293	1.013	0.782	0.669
120	-	3.669	2.492	1.894	1.598	1.505	1.502	1.481	1.461	1.428	1.414	1.405	1.323	1.050	0.806	0.687
125	-	3.708	2.599	1.949	1.637	1.539	1.535	1.513	1.492	1.458	1.444	1.435	1.353	1.088	0.830	0.704
130	-	3.748	2.707	2.006	1.675	1.572	1.569	1.546	1.524	1.488	1.474	1.465	1.383	1.126	0.853	0.722
135	-	3.787	2.815	2.086	1.714	1.606	1.602	1.578	1.555	1.518	1.504	1.495	1.413	1.163	0.877	0.739
140	-	3.826	2.923	2.166	1.752	1.639	1.636	1.611	1.587	1.549	1.535	1.525	1.442	1.201	0.900	0.757
145	-	3.865	3.031	2.245	1.790	1.673	1.669	1.643	1.618	1.579	1.565	1.555	1.472	1.238	0.924	0.775
150	-	3.905	3.138	2.325	1.829	1.706	1.702	1.675	1.650	1.609	1.595	1.585	1.502	1.273	0.947	0.792
155	-	3.944	3.246	2.405	1.867	1.740	1.736	1.708	1.681	1.640	1.625	1.616	1.532	1.305	0.971	0.810
160	-	3.983	3.354	2.485	1.906	1.773	1.769	1.740	1.713	1.670	1.655	1.646	1.562	1.337	0.994	0.827
165	-	4.022	3.462	2.565	1.944	1.807	1.802	1.773	1.744	1.700	1.685	1.676	1.592	1.370	1.018	0.845
170	-	4.062	3.540	2.645	1.983	1.840	1.836	1.805	1.775	1.731	1.716	1.706	1.622	1.402	1.042	0.863
175	-	4.101	3.592	2.725	2.035	1.874	1.869	1.837	1.807	1.761	1.746	1.736	1.652	1.434	1.065	0.880
180	-	4.140	3.644	2.804	2.101	1.907	1.903	1.870	1.838	1.791	1.776	1.766	1.682	1.467	1.089	0.898
185	-	4.179	3.696	2.884	2.166	1.941	1.936	1.902	1.870	1.821	1.806	1.797	1.712	1.499	1.112	0.915
190	-	4.219	3.748	2.964	2.231	1.974	1.969	1.934	1.901	1.852	1.836	1.827	1.742	1.531	1.136	0.933
195	-	4.258	3.800	3.044	2.296	2.014	2.004	1.967	1.933	1.882	1.867	1.857	1.772	1.563	1.159	0.951
200	-	4.297	3.852	3.124	2.362	2.075	2.065	1.999	1.964	1.912	1.897	1.887	1.802	1.596	1.183	0.968

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 6: I/H Sections - 3 Sided Beams
Fire Resistance Period: 90 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	4.336	3.904	3.204	2.427	2.136	2.126	2.059	1.996	1.943	1.927	1.917	1.832	1.628	1.206	0.986
210	-	4.376	3.956	3.284	2.492	2.197	2.187	2.119	2.052	1.973	1.957	1.947	1.862	1.660	1.230	1.003
215	-	4.415	4.008	3.363	2.558	2.258	2.248	2.180	2.113	2.006	1.987	1.977	1.892	1.693	1.254	1.021
220	-	4.454	4.060	3.443	2.623	2.319	2.309	2.241	2.175	2.068	2.036	2.015	1.921	1.725	1.294	1.039
225	-	4.493	4.112	3.521	2.688	2.380	2.370	2.301	2.236	2.130	2.098	2.078	1.951	1.757	1.333	1.056
230	-	4.533	4.164	3.588	2.753	2.441	2.430	2.362	2.297	2.193	2.161	2.141	1.981	1.790	1.373	1.074
235	-	4.572	4.216	3.654	2.819	2.503	2.491	2.423	2.359	2.255	2.224	2.204	2.023	1.822	1.413	1.091
240	-	4.611	4.268	3.721	2.884	2.564	2.552	2.484	2.420	2.318	2.287	2.267	2.089	1.854	1.453	1.109
245	-	4.650	4.320	3.787	2.949	2.625	2.613	2.544	2.481	2.380	2.350	2.330	2.154	1.886	1.492	1.127
250	-	4.690	4.372	3.853	3.015	2.686	2.674	2.605	2.543	2.443	2.412	2.393	2.219	1.919	1.532	1.144
255	-	4.729	4.424	3.920	3.080	2.747	2.735	2.666	2.604	2.505	2.475	2.456	2.284	1.951	1.572	1.162
260	-	4.768	4.476	3.986	3.145	2.808	2.796	2.727	2.666	2.568	2.538	2.519	2.349	1.983	1.612	1.179
265	-	4.807	4.528	4.053	3.211	2.869	2.857	2.787	2.727	2.630	2.601	2.582	2.415	2.033	1.651	1.197
270	-	4.847	4.580	4.119	3.276	2.931	2.918	2.848	2.788	2.693	2.664	2.645	2.480	2.102	1.691	1.215
275	-	4.886	4.632	4.186	3.341	2.992	2.978	2.909	2.850	2.755	2.727	2.708	2.545	2.172	1.731	1.232
280	-	4.925	4.684	4.252	3.406	3.053	3.039	2.970	2.911	2.817	2.789	2.771	2.610	2.241	1.771	1.250
285	-	4.964	4.736	4.318	3.472	3.114	3.100	3.030	2.972	2.880	2.852	2.834	2.675	2.311	1.810	1.289
290	-	5.003	4.788	4.385	3.550	3.175	3.161	3.091	3.034	2.942	2.915	2.897	2.741	2.381	1.850	1.333
295	-	5.043	4.840	4.451	3.647	3.236	3.222	3.152	3.095	3.005	2.978	2.960	2.806	2.450	1.890	1.377
300	-	5.082	4.892	4.518	3.745	3.297	3.283	3.213	3.156	3.067	3.041	3.023	2.871	2.520	1.929	1.421
305	-	5.121	4.944	4.584	3.843	3.358	3.344	3.273	3.218	3.130	3.103	3.086	2.936	2.589	1.969	1.465
310	-	5.160	4.996	4.651	3.941	3.420	3.405	3.334	3.279	3.192	3.166	3.149	3.002	2.659	2.015	1.509
315	-	5.200	5.048	4.717	4.039	3.481	3.465	3.395	3.340	3.255	3.229	3.212	3.067	2.728	2.087	1.553
320	-	5.239	5.100	4.783	4.137	3.572	3.541	3.456	3.402	3.317	3.292	3.275	3.132	2.798	2.158	1.597
325	-	5.278	5.152	4.850	4.235	3.694	3.665	3.521	3.463	3.379	3.355	3.338	3.197	2.868	2.230	1.642
330	-	5.317	5.204	4.916	4.333	3.816	3.788	3.649	3.538	3.442	3.417	3.401	3.262	2.937	2.301	1.686
335	-	5.357	5.256	4.983	4.431	3.938	3.912	3.776	3.666	3.504	3.480	3.464	3.328	3.007	2.372	1.730
340	-	-	5.308	5.049	4.529	4.061	4.035	3.903	3.794	3.625	3.576	3.542	3.393	3.076	2.444	1.774
345	-	-	5.360	5.116	4.627	4.183	4.159	4.030	3.921	3.755	3.704	3.671	3.458	3.146	2.515	1.818
350	-	-	5.412	5.182	4.725	4.305	4.283	4.157	4.049	3.884	3.833	3.800	3.535	3.216	2.587	1.862
355	-	-	5.464	5.248	4.822	4.427	4.406	4.285	4.177	4.013	3.962	3.928	3.666	3.285	2.658	1.906
360	-	-	-	5.315	4.920	4.550	4.530	4.412	4.305	4.142	4.091	4.057	3.798	3.355	2.730	1.950
365	-	-	-	5.381	5.018	4.672	4.653	4.539	4.433	4.271	4.219	4.186	3.929	3.424	2.801	1.994
370	-	-	-	5.448	5.116	4.794	4.777	4.666	4.561	4.400	4.348	4.315	4.061	3.494	2.872	2.061
375	-	-	-	5.514	5.214	4.916	4.900	4.794	4.688	4.530	4.477	4.443	4.192	3.612	2.944	2.131
380	-	-	-	-	5.312	5.039	5.024	4.921	4.816	4.659	4.606	4.572	4.324	3.746	3.015	2.202

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 7: I/H Sections - 3 Sided Beams
Fire Resistance Period: IO5 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	-	2.285	1.660	1.327	1.145	1.052	1.049	1.024	1.003	0.971	0.963	0.956	0.907	0.820	0.675	0.514
60	-	2.796	1.763	1.409	1.257	1.156	1.152	1.125	1.100	1.065	1.056	1.048	0.994	0.896	0.720	0.541
65	-	3.307	1.866	1.490	1.315	1.256	1.254	1.225	1.198	1.159	1.148	1.140	1.080	0.973	0.765	0.567
70	-	3.555	1.969	1.572	1.374	1.306	1.304	1.288	1.273	1.253	1.241	1.232	1.167	1.049	0.810	0.594
75	-	3.627	2.178	1.653	1.432	1.357	1.354	1.336	1.319	1.296	1.290	1.285	1.253	1.126	0.855	0.621
80	-	3.699	2.435	1.735	1.491	1.407	1.404	1.384	1.365	1.339	1.332	1.327	1.291	1.202	0.900	0.647
85	-	3.770	2.692	1.816	1.550	1.457	1.454	1.432	1.411	1.382	1.375	1.369	1.329	1.264	0.945	0.674
90	-	3.842	2.948	1.898	1.608	1.508	1.504	1.480	1.457	1.425	1.417	1.411	1.367	1.297	0.990	0.700
95	-	3.914	3.205	1.979	1.667	1.558	1.554	1.528	1.503	1.469	1.459	1.453	1.405	1.330	1.035	0.727
100	-	3.986	3.462	2.102	1.725	1.608	1.604	1.576	1.549	1.512	1.501	1.495	1.443	1.363	1.080	0.753
105	-	4.057	3.545	2.240	1.784	1.659	1.654	1.624	1.595	1.555	1.544	1.536	1.481	1.396	1.125	0.780
110	-	4.129	3.585	2.377	1.843	1.709	1.704	1.672	1.641	1.598	1.586	1.578	1.519	1.429	1.170	0.806
115	-	4.201	3.626	2.515	1.901	1.759	1.754	1.719	1.687	1.641	1.628	1.620	1.557	1.462	1.215	0.833
120	-	4.273	3.666	2.652	1.960	1.810	1.804	1.767	1.733	1.684	1.671	1.662	1.595	1.495	1.258	0.859
125	-	4.344	3.707	2.790	2.029	1.860	1.854	1.815	1.779	1.727	1.713	1.704	1.632	1.528	1.288	0.886
130	-	4.416	3.748	2.928	2.125	1.911	1.904	1.863	1.825	1.771	1.755	1.746	1.670	1.561	1.319	0.912
135	-	4.488	3.788	3.065	2.221	1.961	1.954	1.911	1.871	1.814	1.798	1.788	1.708	1.594	1.349	0.939
140	-	4.560	3.829	3.203	2.316	2.017	2.006	1.959	1.917	1.857	1.840	1.829	1.746	1.627	1.380	0.966
145	-	4.631	3.869	3.340	2.412	2.099	2.087	2.011	1.963	1.900	1.882	1.871	1.784	1.660	1.410	0.992
150	-	4.703	3.910	3.478	2.507	2.180	2.168	2.087	2.014	1.943	1.925	1.913	1.822	1.693	1.441	1.019
155	-	4.775	3.950	3.550	2.603	2.261	2.248	2.164	2.089	1.986	1.967	1.955	1.860	1.726	1.471	1.045
160	-	4.847	3.991	3.600	2.699	2.342	2.329	2.240	2.163	2.049	2.015	1.997	1.898	1.759	1.502	1.072
165	-	4.918	4.032	3.650	2.794	2.424	2.410	2.316	2.237	2.122	2.088	2.066	1.936	1.792	1.532	1.098
170	-	4.990	4.072	3.700	2.890	2.505	2.490	2.393	2.311	2.195	2.161	2.139	1.973	1.825	1.563	1.125
175	-	5.062	4.113	3.750	2.985	2.586	2.571	2.469	2.385	2.269	2.234	2.212	2.021	1.858	1.593	1.151
180	-	5.134	4.153	3.800	3.081	2.667	2.651	2.545	2.460	2.342	2.307	2.285	2.093	1.891	1.624	1.178
185	-	5.205	4.194	3.850	3.177	2.748	2.732	2.621	2.534	2.415	2.380	2.357	2.165	1.924	1.654	1.204
190	-	5.277	4.235	3.900	3.272	2.830	2.813	2.698	2.608	2.488	2.453	2.430	2.237	1.957	1.685	1.231
195	-	5.349	4.275	3.949	3.368	2.911	2.893	2.774	2.682	2.561	2.526	2.503	2.309	1.990	1.715	1.259
200	-	-	4.316	3.999	3.463	2.992	2.974	2.850	2.756	2.634	2.599	2.576	2.382	2.046	1.746	1.296

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 7: I/H Sections - 3 Sided Beams
Fire Resistance Period: IO5 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	-	4.356	4.049	3.545	3.073	3.055	2.926	2.831	2.707	2.672	2.649	2.454	2.113	1.776	1.334
210	-	-	4.397	4.099	3.614	3.154	3.135	3.003	2.905	2.781	2.745	2.721	2.526	2.181	1.807	1.371
215	-	-	4.437	4.149	3.682	3.236	3.216	3.079	2.979	2.854	2.818	2.794	2.598	2.249	1.837	1.408
220	-	-	4.478	4.199	3.750	3.317	3.296	3.155	3.053	2.927	2.891	2.867	2.670	2.317	1.868	1.445
225	-	-	4.519	4.249	3.818	3.398	3.377	3.232	3.127	3.000	2.964	2.940	2.742	2.385	1.898	1.482
230	-	-	4.559	4.299	3.886	3.479	3.458	3.308	3.202	3.073	3.036	3.012	2.815	2.453	1.929	1.519
235	-	-	4.600	4.349	3.954	3.563	3.540	3.384	3.276	3.146	3.109	3.085	2.887	2.520	1.959	1.556
240	-	-	4.640	4.399	4.022	3.648	3.626	3.460	3.350	3.220	3.182	3.158	2.959	2.588	1.990	1.594
245	-	-	4.681	4.449	4.090	3.733	3.712	3.542	3.424	3.293	3.255	3.231	3.031	2.656	2.046	1.631
250	-	-	4.722	4.499	4.158	3.819	3.798	3.635	3.498	3.366	3.328	3.303	3.103	2.724	2.117	1.668
255	-	-	4.762	4.549	4.226	3.904	3.884	3.728	3.592	3.439	3.401	3.376	3.176	2.792	2.188	1.705
260	-	-	4.803	4.599	4.294	3.989	3.971	3.821	3.690	3.512	3.474	3.449	3.248	2.860	2.259	1.742
265	-	-	4.843	4.649	4.362	4.075	4.057	3.914	3.787	3.616	3.562	3.526	3.320	2.927	2.330	1.779
270	-	-	4.884	4.699	4.430	4.160	4.143	4.007	3.885	3.719	3.667	3.631	3.392	2.995	2.401	1.816
275	-	-	4.924	4.749	4.498	4.245	4.229	4.100	3.983	3.822	3.771	3.737	3.464	3.063	2.472	1.854
280	-	-	4.965	4.799	4.566	4.330	4.315	4.193	4.081	3.925	3.875	3.842	3.551	3.131	2.543	1.891
285	-	-	5.006	4.849	4.634	4.416	4.401	4.285	4.178	4.028	3.979	3.947	3.667	3.199	2.614	1.928
290	-	-	5.046	4.899	4.702	4.501	4.487	4.378	4.276	4.131	4.084	4.052	3.782	3.267	2.685	1.965
295	-	-	5.087	4.949	4.770	4.586	4.573	4.471	4.374	4.234	4.188	4.158	3.898	3.334	2.756	2.004
300	-	-	5.127	4.999	4.839	4.671	4.659	4.564	4.472	4.337	4.292	4.263	4.013	3.402	2.827	2.081
305	-	-	5.168	5.049	4.907	4.757	4.745	4.657	4.570	4.441	4.397	4.368	4.129	3.470	2.898	2.158
310	-	-	5.208	5.099	4.975	4.842	4.831	4.750	4.667	4.544	4.501	4.473	4.245	3.567	2.969	2.235
315	-	-	5.249	5.149	5.043	4.927	4.918	4.843	4.765	4.647	4.605	4.579	4.360	3.710	3.041	2.312
320	-	-	5.290	5.199	5.111	5.012	5.004	4.936	4.863	4.750	4.710	4.684	4.476	3.853	3.112	2.390
325	-	-	5.330	5.249	5.179	5.098	5.090	5.029	4.961	4.853	4.814	4.789	4.591	3.996	3.183	2.467
330	-	-	5.371	5.299	5.247	5.183	5.176	5.122	5.058	4.956	4.918	4.894	4.707	4.139	3.254	2.544
335	-	-	-	5.349	5.315	5.268	5.262	5.215	5.156	5.059	5.023	5.000	4.823	4.282	3.325	2.621
340	-	-	-	5.399	5.383	5.353	5.348	5.308	5.254	5.162	5.127	5.105	4.938	4.425	3.396	2.699
345	-	-	-	5.449	5.451	5.439	5.434	5.400	5.352	5.265	5.231	5.210	5.054	4.568	3.467	2.776
350	-	-	-	-	5.519	5.524	5.520	5.493	5.449	5.369	5.336	5.315	5.169	4.712	3.571	2.853
355	-	-	-	-	-	-	-	-	5.547	5.472	5.440	5.420	5.285	4.855	3.734	2.930
360	-	-	-	-	-	-	-	-	-	-	-	-	5.401	4.998	3.897	3.007
365	-	-	-	-	-	-	-	-	-	-	-	-	5.516	5.141	4.060	3.085
370	-	-	-	-	-	-	-	-	-	-	-	-	-	5.284	4.222	3.162
375	-	-	-	-	-	-	-	-	-	-	-	-	-	5.427	4.385	3.239
380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.548	3.316

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 8: I/H Sections - 3 Sided Beams
Fire Resistance Period: 120 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	-	-	1.959	1.638	1.342	1.277	1.275	1.259	1.245	1.203	1.193	1.185	1.129	1.030	0.856	0.698
60	-	-	2.365	1.736	1.424	1.347	1.345	1.326	1.310	1.288	1.282	1.277	1.237	1.126	0.935	0.751
65	-	-	2.903	1.835	1.505	1.418	1.414	1.394	1.375	1.349	1.342	1.337	1.300	1.222	1.014	0.803
70	-	-	3.440	1.934	1.587	1.488	1.484	1.461	1.440	1.410	1.403	1.397	1.355	1.285	1.092	0.856
75	-	-	3.587	2.093	1.668	1.558	1.554	1.528	1.505	1.472	1.463	1.457	1.410	1.331	1.171	0.908
80	-	-	3.675	2.377	1.750	1.628	1.623	1.595	1.570	1.533	1.524	1.517	1.465	1.378	1.250	0.961
85	-	-	3.762	2.660	1.831	1.698	1.693	1.662	1.634	1.595	1.584	1.577	1.521	1.424	1.287	1.013
90	-	-	3.849	2.944	1.913	1.768	1.763	1.729	1.699	1.656	1.644	1.636	1.576	1.470	1.322	1.066
95	-	-	3.936	3.227	1.994	1.838	1.833	1.797	1.764	1.718	1.705	1.696	1.631	1.517	1.358	1.119
100	-	-	4.023	3.511	2.153	1.908	1.902	1.864	1.829	1.779	1.765	1.756	1.686	1.563	1.393	1.171
105	-	-	4.110	3.553	2.319	1.979	1.972	1.931	1.894	1.840	1.826	1.816	1.741	1.610	1.429	1.224
110	-	-	4.197	3.594	2.484	2.086	2.073	1.998	1.959	1.902	1.886	1.876	1.796	1.656	1.464	1.266
115	-	-	4.284	3.636	2.650	2.211	2.198	2.115	2.041	1.963	1.947	1.936	1.851	1.702	1.500	1.296
120	-	-	4.372	3.677	2.815	2.336	2.322	2.235	2.155	2.043	2.012	1.996	1.906	1.749	1.535	1.326
125	-	-	4.459	3.718	2.981	2.460	2.446	2.354	2.270	2.151	2.118	2.097	1.961	1.795	1.571	1.356
130	-	-	4.546	3.759	3.146	2.585	2.570	2.474	2.385	2.260	2.225	2.203	2.028	1.842	1.606	1.386
135	-	-	4.633	3.801	3.312	2.710	2.694	2.593	2.499	2.368	2.332	2.308	2.125	1.888	1.642	1.416
140	-	-	4.720	3.842	3.477	2.835	2.818	2.712	2.614	2.477	2.438	2.414	2.222	1.935	1.677	1.446
145	-	-	4.807	3.883	3.550	2.960	2.943	2.832	2.729	2.585	2.545	2.519	2.318	1.981	1.713	1.476
150	-	-	4.894	3.924	3.599	3.084	3.067	2.951	2.843	2.693	2.652	2.625	2.415	2.047	1.748	1.506
155	-	-	4.981	3.966	3.648	3.209	3.191	3.070	2.958	2.802	2.759	2.730	2.511	2.128	1.784	1.536
160	-	-	5.069	4.007	3.697	3.334	3.315	3.190	3.073	2.910	2.865	2.836	2.608	2.208	1.819	1.566
165	-	-	5.156	4.048	3.745	3.459	3.439	3.309	3.187	3.019	2.972	2.941	2.705	2.289	1.855	1.596
170	-	-	5.243	4.089	3.794	3.544	3.535	3.429	3.302	3.127	3.079	3.047	2.801	2.369	1.890	1.626
175	-	-	5.330	4.131	3.843	3.600	3.592	3.530	3.417	3.236	3.185	3.153	2.898	2.450	1.926	1.656
180	-	-	5.417	4.172	3.892	3.656	3.648	3.588	3.522	3.344	3.292	3.258	2.994	2.531	1.961	1.686
185	-	-	-	4.213	3.940	3.713	3.704	3.646	3.582	3.453	3.399	3.364	3.091	2.611	1.997	1.716
190	-	-	-	4.254	3.989	3.769	3.761	3.704	3.643	3.541	3.505	3.469	3.188	2.692	2.066	1.746
195	-	-	-	4.296	4.038	3.825	3.817	3.762	3.703	3.604	3.573	3.551	3.284	2.772	2.140	1.776
200	-	-	-	4.337	4.086	3.881	3.873	3.820	3.763	3.668	3.637	3.616	3.381	2.853	2.213	1.806

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 8: I/H Sections - 3 Sided Beams
Fire Resistance Period: 120 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	550°C	575°C	576°C	583°C	590°C	600°C	603°C	605°C	620°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	-	-	4.378	4.135	3.937	3.930	3.878	3.823	3.731	3.702	3.682	3.478	2.934	2.287	1.836
210	-	-	-	4.419	4.184	3.993	3.986	3.937	3.883	3.795	3.766	3.747	3.559	3.014	2.361	1.866
215	-	-	-	4.461	4.233	4.049	4.043	3.995	3.943	3.858	3.831	3.812	3.632	3.095	2.435	1.896
220	-	-	-	4.502	4.281	4.105	4.099	4.053	4.003	3.922	3.896	3.878	3.705	3.175	2.509	1.925
225	-	-	-	4.543	4.330	4.161	4.155	4.111	4.064	3.985	3.960	3.943	3.778	3.256	2.583	1.955
230	-	-	-	4.584	4.379	4.218	4.212	4.169	4.124	4.049	4.025	4.008	3.851	3.337	2.656	1.985
235	-	-	-	4.626	4.428	4.274	4.268	4.227	4.184	4.112	4.089	4.074	3.924	3.417	2.730	2.036
240	-	-	-	4.667	4.476	4.330	4.324	4.286	4.244	4.176	4.154	4.139	3.997	3.498	2.804	2.109
245	-	-	-	4.708	4.525	4.386	4.381	4.344	4.304	4.239	4.219	4.204	4.070	3.595	2.878	2.182
250	-	-	-	4.749	4.574	4.442	4.437	4.402	4.364	4.303	4.283	4.270	4.143	3.696	2.952	2.255
255	-	-	-	4.791	4.622	4.498	4.493	4.460	4.424	4.366	4.348	4.335	4.216	3.797	3.026	2.329
260	-	-	-	4.832	4.671	4.554	4.550	4.518	4.485	4.430	4.412	4.401	4.289	3.898	3.099	2.402
265	-	-	-	4.873	4.720	4.610	4.606	4.576	4.545	4.493	4.477	4.466	4.362	3.998	3.173	2.475
270	-	-	-	4.914	4.769	4.666	4.663	4.635	4.605	4.557	4.542	4.531	4.435	4.099	3.247	2.548
275	-	-	-	4.956	4.817	4.723	4.719	4.693	4.665	4.620	4.606	4.597	4.509	4.200	3.321	2.621
280	-	-	-	4.997	4.866	4.779	4.775	4.751	4.725	4.684	4.671	4.662	4.582	4.301	3.395	2.694
285	-	-	-	5.038	4.915	4.835	4.832	4.809	4.785	4.747	4.735	4.727	4.655	4.402	3.469	2.767
290	-	-	-	5.079	4.964	4.891	4.888	4.867	4.845	4.811	4.800	4.793	4.728	4.503	3.572	2.840
295	-	-	-	5.121	5.012	4.947	4.944	4.925	4.906	4.874	4.865	4.858	4.801	4.603	3.719	2.913
300	-	-	-	5.162	5.061	5.003	5.001	4.983	4.966	4.938	4.929	4.923	4.874	4.704	3.866	2.987
305	-	-	-	5.203	5.110	5.059	5.057	5.042	5.026	5.001	4.994	4.989	4.947	4.805	4.013	3.060
310	-	-	-	5.244	5.158	5.115	5.113	5.100	5.086	5.065	5.058	5.054	5.020	4.906	4.160	3.133
315	-	-	-	5.286	5.207	5.171	5.170	5.158	5.146	5.128	5.123	5.120	5.093	5.007	4.306	3.206
320	-	-	-	5.327	5.256	5.228	5.226	5.216	5.206	5.192	5.188	5.185	5.166	5.108	4.453	3.279
325	-	-	-	-	5.305	5.284	5.283	5.274	5.266	5.255	5.252	5.250	5.239	5.209	4.600	3.352
330	-	-	-	-	5.353	5.340	5.339	5.332	5.327	5.319	5.317	5.316	5.312	5.309	4.747	3.425
335	-	-	-	-	5.410	5.410	5.410	5.410	5.410	5.410	5.410	5.410	5.410	5.410	4.894	3.498
340	-	-	-	-	-	5.511	5.511	5.511	5.511	5.511	5.511	5.511	5.511	5.511	5.040	3.660
345	-	-	-	-	-	-	-	5.612	5.612	5.612	5.612	5.612	5.612	5.612	5.187	3.843
350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.334	4.025
355	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.481	4.208
360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.390
365	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.573
370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.755
375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.938
380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.120

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 9: I/H Sections - 4 Sided Columns
Fire Resistance Period: 15 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
60	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
65	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
70	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
75	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
80	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
85	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
90	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
95	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
100	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
105	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
110	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
115	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
120	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
125	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
130	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
135	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
140	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
145	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
150	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
155	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
160	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
165	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
170	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
175	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
180	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
185	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
190	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
195	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
200	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 9: I/H Sections - 4 Sided Columns
Fire Resistance Period: 15 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
210	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
215	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
220	0.456	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
225	0.476	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
230	0.496	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
235	0.517	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
240	0.537	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
245	0.557	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
250	0.578	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
255	0.598	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
260	0.618	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
265	0.639	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
270	0.659	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
275	0.680	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
280	0.700	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
285	0.720	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
290	0.741	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
295	0.761	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
300	0.781	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
305	0.802	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
310	0.822	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
315	0.842	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
320	0.863	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
325	0.883	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
330	0.903	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
335	0.924	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
340	0.944	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
345	0.965	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
350	0.985	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
355	1.005	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
360	1.026	0.468	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
365	1.046	0.482	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
370	1.066	0.495	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
375	1.087	0.509	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
380	1.107	0.523	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table IO: I/H Sections - 4 Sided Columns
Fire Resistance Period: 30 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
60	0.500	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
65	0.539	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
70	0.577	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
75	0.616	0.468	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
80	0.654	0.486	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
85	0.692	0.503	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
90	0.731	0.520	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
95	0.769	0.537	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
100	0.808	0.554	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
105	0.846	0.571	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
110	0.884	0.588	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
115	0.923	0.605	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
120	0.961	0.622	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
125	0.999	0.639	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
130	1.038	0.656	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
135	1.076	0.673	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
140	1.115	0.690	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
145	1.153	0.707	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
150	1.191	0.725	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
155	1.230	0.742	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
160	1.268	0.759	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
165	1.307	0.776	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
170	1.345	0.793	0.471	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
175	1.384	0.810	0.490	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
180	1.422	0.827	0.508	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
185	1.460	0.844	0.527	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
190	1.499	0.861	0.545	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
195	1.537	0.878	0.564	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
200	1.576	0.895	0.582	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table IO: I/H Sections - 4 Sided Columns
Fire Resistance Period: 30 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	1.614	0.912	0.601	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
210	1.653	0.929	0.619	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
215	1.691	0.947	0.638	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
220	1.729	0.964	0.656	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
225	1.768	0.981	0.675	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
230	1.806	0.998	0.693	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
235	1.845	1.015	0.712	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
240	1.883	1.032	0.730	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
245	1.922	1.049	0.749	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
250	1.960	1.066	0.767	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
255	1.999	1.083	0.786	0.468	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
260	2.037	1.100	0.804	0.487	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
265	2.075	1.117	0.823	0.506	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
270	2.113	1.134	0.841	0.526	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
275	2.151	1.151	0.860	0.545	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
280	2.189	1.168	0.878	0.564	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
285	2.227	1.186	0.897	0.583	0.464	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
290	2.265	1.203	0.915	0.602	0.483	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
295	2.302	1.220	0.933	0.621	0.502	0.462	0.455	0.455	0.455	0.455	0.455	0.455	0.455
300	2.340	1.237	0.952	0.640	0.520	0.480	0.455	0.455	0.455	0.455	0.455	0.455	0.455
305	2.378	1.257	0.970	0.659	0.539	0.498	0.462	0.455	0.455	0.455	0.455	0.455	0.455
310	2.416	1.288	0.989	0.678	0.558	0.517	0.480	0.455	0.455	0.455	0.455	0.455	0.455
315	2.454	1.319	1.007	0.698	0.577	0.535	0.497	0.455	0.455	0.455	0.455	0.455	0.455
320	2.492	1.350	1.026	0.717	0.596	0.553	0.515	0.472	0.455	0.455	0.455	0.455	0.455
325	2.530	1.382	1.044	0.736	0.615	0.571	0.533	0.489	0.455	0.455	0.455	0.455	0.455
330	2.568	1.413	1.063	0.755	0.633	0.589	0.550	0.506	0.455	0.455	0.455	0.455	0.455
335	2.606	1.444	1.081	0.774	0.652	0.608	0.568	0.523	0.469	0.455	0.455	0.455	0.455
340	2.644	1.475	1.100	0.793	0.671	0.626	0.586	0.540	0.485	0.455	0.455	0.455	0.455
345	2.682	1.506	1.118	0.812	0.690	0.644	0.603	0.557	0.501	0.455	0.455	0.455	0.455
350	2.720	1.537	1.137	0.831	0.709	0.662	0.621	0.574	0.518	0.455	0.455	0.455	0.455
355	2.758	1.569	1.155	0.850	0.727	0.680	0.639	0.591	0.534	0.455	0.455	0.455	0.455
360	2.796	1.600	1.174	0.870	0.746	0.699	0.656	0.608	0.550	0.455	0.455	0.455	0.455
365	2.834	1.631	1.192	0.889	0.765	0.717	0.674	0.625	0.566	0.455	0.455	0.455	0.455
370	2.872	1.662	1.211	0.908	0.784	0.735	0.692	0.642	0.583	0.455	0.455	0.455	0.455
375	2.910	1.693	1.229	0.927	0.803	0.753	0.709	0.659	0.599	0.455	0.455	0.455	0.455
380	2.948	1.724	1.248	0.946	0.822	0.771	0.727	0.676	0.615	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table II: I/H Sections - 4 Sided Columns
Fire Resistance Period: 45 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.948	0.520	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
60	1.017	0.561	0.498	0.459	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
65	1.085	0.602	0.520	0.476	0.456	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
70	1.154	0.644	0.542	0.492	0.472	0.460	0.455	0.455	0.455	0.455	0.455	0.455	0.455
75	1.222	0.685	0.564	0.509	0.487	0.476	0.455	0.455	0.455	0.455	0.455	0.455	0.455
80	1.277	0.726	0.585	0.526	0.503	0.491	0.455	0.455	0.455	0.455	0.455	0.455	0.455
85	1.322	0.767	0.607	0.543	0.519	0.507	0.455	0.455	0.455	0.455	0.455	0.455	0.455
90	1.367	0.809	0.629	0.560	0.535	0.522	0.455	0.455	0.455	0.455	0.455	0.455	0.455
95	1.412	0.850	0.651	0.576	0.551	0.538	0.455	0.455	0.455	0.455	0.455	0.455	0.455
100	1.457	0.891	0.672	0.593	0.567	0.553	0.455	0.455	0.455	0.455	0.455	0.455	0.455
105	1.502	0.933	0.694	0.610	0.582	0.568	0.455	0.455	0.455	0.455	0.455	0.455	0.455
110	1.546	0.974	0.716	0.627	0.598	0.584	0.455	0.455	0.455	0.455	0.455	0.455	0.455
115	1.591	1.015	0.738	0.643	0.614	0.599	0.455	0.455	0.455	0.455	0.455	0.455	0.455
120	1.636	1.056	0.759	0.660	0.630	0.615	0.455	0.455	0.455	0.455	0.455	0.455	0.455
125	1.681	1.098	0.781	0.677	0.646	0.630	0.455	0.455	0.455	0.455	0.455	0.455	0.455
130	1.726	1.139	0.803	0.694	0.662	0.646	0.455	0.455	0.455	0.455	0.455	0.455	0.455
135	1.771	1.180	0.825	0.711	0.677	0.661	0.455	0.455	0.455	0.455	0.455	0.455	0.455
140	1.816	1.221	0.846	0.727	0.693	0.676	0.455	0.455	0.455	0.455	0.455	0.455	0.455
145	1.861	1.260	0.868	0.744	0.709	0.692	0.469	0.455	0.455	0.455	0.455	0.455	0.455
150	1.906	1.291	0.890	0.761	0.725	0.707	0.490	0.455	0.455	0.455	0.455	0.455	0.455
155	1.951	1.322	0.912	0.778	0.741	0.723	0.510	0.472	0.455	0.455	0.455	0.455	0.455
160	1.996	1.354	0.934	0.795	0.757	0.738	0.531	0.492	0.455	0.455	0.455	0.455	0.455
165	2.048	1.385	0.955	0.811	0.772	0.753	0.551	0.512	0.463	0.455	0.455	0.455	0.455
170	2.110	1.416	0.977	0.828	0.788	0.769	0.572	0.532	0.483	0.455	0.455	0.455	0.455
175	2.173	1.448	0.999	0.845	0.804	0.784	0.592	0.553	0.503	0.455	0.455	0.455	0.455
180	2.235	1.479	1.021	0.862	0.820	0.800	0.613	0.573	0.523	0.455	0.455	0.455	0.455
185	2.297	1.510	1.042	0.879	0.836	0.815	0.633	0.593	0.543	0.455	0.455	0.455	0.455
190	2.359	1.542	1.064	0.895	0.852	0.831	0.654	0.613	0.563	0.455	0.455	0.455	0.455
195	2.422	1.573	1.086	0.912	0.868	0.846	0.674	0.634	0.583	0.455	0.455	0.455	0.455
200	2.484	1.604	1.108	0.929	0.883	0.861	0.695	0.654	0.603	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table II: I/H Sections - 4 Sided Columns
Fire Resistance Period: 45 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	2.546	1.636	1.129	0.946	0.899	0.877	0.715	0.674	0.623	0.462	0.455	0.455	0.455
210	2.608	1.667	1.151	0.963	0.915	0.892	0.736	0.694	0.643	0.481	0.455	0.455	0.455
215	2.671	1.698	1.173	0.979	0.931	0.908	0.756	0.715	0.663	0.501	0.455	0.455	0.455
220	2.733	1.730	1.195	0.996	0.947	0.923	0.777	0.735	0.683	0.521	0.455	0.455	0.455
225	2.795	1.761	1.217	1.013	0.963	0.938	0.797	0.755	0.703	0.541	0.455	0.455	0.455
230	2.857	1.792	1.238	1.030	0.978	0.954	0.818	0.775	0.723	0.560	0.455	0.455	0.455
235	2.920	1.824	1.267	1.047	0.994	0.969	0.838	0.796	0.743	0.580	0.455	0.455	0.455
240	2.982	1.855	1.302	1.063	1.010	0.985	0.859	0.816	0.763	0.600	0.455	0.455	0.455
245	3.044	1.886	1.338	1.080	1.026	1.000	0.879	0.836	0.783	0.619	0.455	0.455	0.455
250	3.107	1.918	1.374	1.097	1.042	1.016	0.900	0.856	0.803	0.639	0.455	0.455	0.455
255	3.169	1.949	1.410	1.114	1.058	1.031	0.920	0.877	0.823	0.659	0.455	0.455	0.455
260	3.231	1.980	1.446	1.130	1.073	1.046	0.941	0.897	0.843	0.678	0.455	0.455	0.455
265	3.293	2.012	1.481	1.147	1.089	1.062	0.961	0.917	0.863	0.698	0.455	0.455	0.455
270	3.356	2.053	1.517	1.164	1.105	1.077	0.982	0.937	0.883	0.718	0.455	0.455	0.455
275	3.418	2.100	1.553	1.181	1.121	1.093	1.002	0.958	0.903	0.738	0.457	0.455	0.455
280	3.480	2.146	1.589	1.198	1.137	1.108	1.023	0.978	0.923	0.757	0.478	0.455	0.455
285	3.538	2.193	1.624	1.214	1.153	1.123	1.043	0.998	0.943	0.777	0.498	0.455	0.455
290	3.588	2.239	1.660	1.231	1.168	1.139	1.064	1.019	0.963	0.797	0.518	0.455	0.455
295	3.638	2.286	1.696	1.248	1.184	1.154	1.084	1.039	0.983	0.816	0.539	0.455	0.455
300	3.687	2.332	1.732	1.282	1.200	1.170	1.105	1.059	1.003	0.836	0.559	0.455	0.455
305	3.737	2.379	1.768	1.318	1.216	1.185	1.125	1.079	1.023	0.856	0.579	0.455	0.455
310	3.787	2.426	1.803	1.354	1.232	1.201	1.146	1.100	1.043	0.875	0.600	0.455	0.455
315	3.837	2.472	1.839	1.391	1.248	1.216	1.166	1.120	1.063	0.895	0.620	0.455	0.455
320	3.886	2.519	1.875	1.427	1.279	1.231	1.187	1.140	1.083	0.915	0.640	0.455	0.455
325	3.936	2.565	1.911	1.463	1.314	1.247	1.207	1.160	1.103	0.935	0.661	0.455	0.455
330	3.986	2.612	1.947	1.499	1.349	1.277	1.228	1.181	1.123	0.954	0.681	0.459	0.455
335	4.035	2.658	1.982	1.536	1.384	1.311	1.248	1.201	1.143	0.974	0.702	0.476	0.455
340	4.085	2.705	2.018	1.572	1.419	1.345	1.281	1.221	1.163	0.994	0.722	0.493	0.455
345	4.135	2.751	2.063	1.608	1.453	1.380	1.314	1.241	1.183	1.013	0.742	0.510	0.455
350	4.185	2.798	2.108	1.644	1.488	1.414	1.348	1.269	1.203	1.033	0.763	0.527	0.455
355	4.234	2.844	2.153	1.680	1.523	1.448	1.381	1.301	1.223	1.053	0.783	0.544	0.455
360	4.284	2.891	2.198	1.717	1.558	1.482	1.414	1.334	1.243	1.072	0.803	0.561	0.455
365	4.334	2.938	2.244	1.753	1.593	1.516	1.448	1.367	1.271	1.092	0.824	0.578	0.455
370	4.384	2.984	2.289	1.789	1.627	1.550	1.481	1.399	1.303	1.112	0.844	0.596	0.455
375	4.433	3.031	2.334	1.825	1.662	1.584	1.515	1.432	1.334	1.131	0.864	0.613	0.455
380	4.483	3.077	2.380	1.862	1.697	1.619	1.548	1.464	1.366	1.151	0.885	0.630	0.455

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Loading Tables

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Table I2: I/H Sections - 4 Sided Columns
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	1.466	0.972	0.695	0.514	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
60	1.597	1.031	0.736	0.546	0.526	0.517	0.510	0.502	0.492	0.457	0.455	0.455	0.455
65	1.727	1.090	0.777	0.578	0.552	0.541	0.532	0.522	0.511	0.474	0.455	0.455	0.455
70	1.857	1.148	0.818	0.610	0.579	0.565	0.554	0.542	0.529	0.491	0.455	0.455	0.455
75	1.988	1.207	0.858	0.642	0.605	0.589	0.576	0.562	0.548	0.508	0.455	0.455	0.455
80	2.103	1.260	0.899	0.674	0.632	0.613	0.598	0.582	0.566	0.525	0.455	0.455	0.455
85	2.214	1.300	0.940	0.706	0.658	0.637	0.621	0.602	0.585	0.542	0.455	0.455	0.455
90	2.325	1.340	0.981	0.738	0.685	0.662	0.643	0.622	0.604	0.559	0.455	0.455	0.455
95	2.436	1.380	1.022	0.770	0.711	0.686	0.665	0.641	0.622	0.576	0.455	0.455	0.455
100	2.546	1.420	1.062	0.802	0.738	0.710	0.687	0.661	0.641	0.593	0.455	0.455	0.455
105	2.657	1.460	1.103	0.834	0.764	0.734	0.709	0.681	0.659	0.610	0.455	0.455	0.455
110	2.768	1.500	1.144	0.866	0.791	0.758	0.731	0.701	0.678	0.627	0.455	0.455	0.455
115	2.879	1.540	1.185	0.898	0.817	0.783	0.753	0.721	0.697	0.644	0.455	0.455	0.455
120	2.989	1.580	1.226	0.930	0.844	0.807	0.776	0.741	0.715	0.661	0.455	0.455	0.455
125	3.100	1.620	1.265	0.962	0.871	0.831	0.798	0.760	0.734	0.678	0.455	0.455	0.455
130	3.211	1.660	1.302	0.994	0.897	0.855	0.820	0.780	0.752	0.695	0.455	0.455	0.455
135	3.322	1.700	1.339	1.026	0.924	0.879	0.842	0.800	0.771	0.712	0.455	0.455	0.455
140	3.432	1.740	1.375	1.058	0.950	0.904	0.864	0.820	0.789	0.729	0.455	0.455	0.455
145	3.529	1.780	1.412	1.090	0.977	0.928	0.886	0.840	0.808	0.746	0.455	0.455	0.455
150	3.571	1.820	1.449	1.122	1.003	0.952	0.909	0.860	0.827	0.763	0.456	0.455	0.455
155	3.612	1.860	1.486	1.154	1.030	0.976	0.931	0.880	0.845	0.780	0.477	0.455	0.455
160	3.654	1.899	1.523	1.186	1.056	1.000	0.953	0.899	0.864	0.797	0.499	0.455	0.455
165	3.695	1.939	1.559	1.217	1.083	1.025	0.975	0.919	0.882	0.814	0.521	0.455	0.455
170	3.737	1.979	1.596	1.249	1.109	1.049	0.997	0.939	0.901	0.831	0.542	0.455	0.455
175	3.778	2.019	1.633	1.283	1.136	1.073	1.019	0.959	0.920	0.849	0.564	0.455	0.455
180	3.820	2.072	1.670	1.317	1.162	1.097	1.042	0.979	0.938	0.866	0.585	0.455	0.455
185	3.861	2.126	1.707	1.351	1.189	1.121	1.064	0.999	0.957	0.883	0.607	0.455	0.455
190	3.903	2.180	1.743	1.385	1.216	1.145	1.086	1.018	0.975	0.900	0.629	0.455	0.455
195	3.944	2.234	1.780	1.419	1.242	1.170	1.108	1.038	0.994	0.917	0.650	0.455	0.455
200	3.986	2.288	1.817	1.453	1.275	1.194	1.130	1.058	1.013	0.934	0.672	0.474	0.455

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Loading Tables

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Table I2: I/H Sections - 4 Sided Columns
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	4.027	2.342	1.854	1.486	1.310	1.218	1.152	1.078	1.031	0.951	0.694	0.495	0.455
210	4.068	2.396	1.891	1.520	1.346	1.242	1.175	1.098	1.050	0.968	0.715	0.516	0.455
215	4.110	2.450	1.927	1.554	1.381	1.275	1.197	1.118	1.068	0.985	0.737	0.536	0.455
220	4.151	2.504	1.964	1.588	1.417	1.312	1.219	1.138	1.087	1.002	0.758	0.557	0.455
225	4.193	2.557	2.001	1.622	1.452	1.349	1.241	1.157	1.106	1.019	0.780	0.578	0.455
230	4.234	2.611	2.044	1.656	1.488	1.386	1.273	1.177	1.124	1.036	0.802	0.598	0.455
235	4.276	2.665	2.095	1.690	1.524	1.423	1.312	1.197	1.143	1.053	0.823	0.619	0.455
240	4.317	2.719	2.146	1.724	1.559	1.460	1.351	1.217	1.161	1.070	0.845	0.640	0.455
245	4.359	2.773	2.197	1.757	1.595	1.497	1.390	1.237	1.180	1.087	0.867	0.660	0.455
250	4.400	2.827	2.248	1.791	1.630	1.534	1.429	1.264	1.198	1.104	0.888	0.681	0.455
255	4.442	2.881	2.299	1.825	1.666	1.571	1.468	1.307	1.217	1.121	0.910	0.702	0.455
260	4.483	2.935	2.350	1.859	1.701	1.608	1.507	1.350	1.236	1.138	0.932	0.722	0.455
265	4.525	2.989	2.400	1.893	1.737	1.645	1.546	1.393	1.260	1.155	0.953	0.743	0.466
270	4.566	3.043	2.451	1.927	1.772	1.682	1.585	1.436	1.304	1.172	0.975	0.764	0.486
275	4.608	3.097	2.502	1.961	1.808	1.719	1.624	1.479	1.347	1.189	0.996	0.784	0.505
280	4.649	3.150	2.553	1.995	1.843	1.756	1.663	1.521	1.391	1.206	1.018	0.805	0.525
285	4.691	3.204	2.604	2.032	1.879	1.794	1.702	1.564	1.434	1.223	1.040	0.825	0.545
290	4.732	3.258	2.655	2.088	1.914	1.831	1.741	1.607	1.478	1.240	1.061	0.846	0.565
295	4.774	3.312	2.706	2.144	1.950	1.868	1.780	1.650	1.522	1.267	1.083	0.867	0.584
300	4.815	3.366	2.757	2.199	1.985	1.905	1.819	1.693	1.565	1.307	1.105	0.887	0.604
305	4.857	3.420	2.808	2.255	2.021	1.942	1.858	1.736	1.609	1.347	1.126	0.908	0.624
310	4.898	3.474	2.859	2.310	2.077	1.979	1.897	1.779	1.652	1.387	1.148	0.929	0.643
315	4.940	3.530	2.910	2.366	2.133	2.016	1.936	1.822	1.696	1.427	1.170	0.949	0.663
320	4.981	3.600	2.961	2.421	2.189	2.069	1.975	1.864	1.740	1.467	1.191	0.970	0.683
325	5.022	3.669	3.012	2.477	2.246	2.126	2.014	1.907	1.783	1.507	1.213	0.991	0.702
330	5.064	3.739	3.063	2.532	2.302	2.182	2.067	1.950	1.827	1.547	1.234	1.011	0.722
335	5.105	3.809	3.114	2.588	2.359	2.239	2.124	1.993	1.871	1.587	1.260	1.032	0.742
340	5.147	3.879	3.165	2.643	2.415	2.295	2.181	2.041	1.914	1.627	1.294	1.053	0.762
345	5.188	3.949	3.216	2.699	2.471	2.352	2.238	2.098	1.958	1.667	1.329	1.073	0.781
350	5.230	4.019	3.267	2.754	2.528	2.409	2.295	2.156	2.001	1.707	1.364	1.094	0.801
355	-	4.089	3.318	2.810	2.584	2.465	2.352	2.213	2.052	1.747	1.399	1.115	0.821
360	-	4.158	3.369	2.865	2.641	2.522	2.409	2.271	2.110	1.787	1.433	1.135	0.840
365	-	4.228	3.420	2.921	2.697	2.578	2.466	2.328	2.168	1.827	1.468	1.156	0.860
370	-	4.298	3.471	2.977	2.753	2.635	2.523	2.386	2.225	1.867	1.503	1.177	0.880
375	-	4.368	3.522	3.032	2.810	2.691	2.579	2.443	2.283	1.907	1.538	1.197	0.899
380	-	4.438	3.599	3.088	2.866	2.748	2.636	2.501	2.341	1.947	1.572	1.218	0.919

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SC901 & SC902

Loading Tables

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Table IB: I/H Sections - 4 Sided Columns
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	1.932	1.416	1.042	0.817	0.746	0.713	0.686	0.655	0.556	0.518	0.455	0.455	0.455
60	2.155	1.528	1.098	0.856	0.784	0.749	0.721	0.689	0.592	0.546	0.501	0.455	0.455
65	2.430	1.641	1.153	0.895	0.821	0.786	0.757	0.724	0.627	0.573	0.520	0.462	0.455
70	2.706	1.754	1.209	0.934	0.859	0.822	0.792	0.758	0.663	0.600	0.539	0.479	0.455
75	2.982	1.867	1.261	0.974	0.896	0.859	0.828	0.792	0.699	0.628	0.558	0.496	0.455
80	3.258	1.980	1.304	1.013	0.934	0.895	0.863	0.826	0.735	0.655	0.577	0.513	0.455
85	3.533	2.069	1.346	1.052	0.971	0.932	0.899	0.860	0.770	0.683	0.595	0.530	0.455
90	-	2.145	1.388	1.091	1.009	0.968	0.934	0.894	0.806	0.710	0.614	0.547	0.455
95	-	2.221	1.430	1.130	1.046	1.005	0.970	0.928	0.842	0.737	0.633	0.564	0.455
100	-	2.296	1.473	1.169	1.084	1.042	1.005	0.962	0.878	0.765	0.652	0.582	0.455
105	-	2.372	1.515	1.209	1.121	1.078	1.041	0.997	0.913	0.792	0.671	0.599	0.455
110	-	2.448	1.557	1.248	1.159	1.115	1.076	1.031	0.949	0.819	0.690	0.616	0.455
115	-	2.523	1.599	1.289	1.196	1.151	1.112	1.065	0.985	0.847	0.708	0.633	0.455
120	-	2.599	1.642	1.329	1.234	1.188	1.147	1.099	1.021	0.874	0.727	0.650	0.455
125	-	2.675	1.684	1.370	1.272	1.224	1.183	1.133	1.056	0.902	0.746	0.667	0.455
130	-	2.750	1.726	1.411	1.311	1.261	1.218	1.167	1.092	0.929	0.765	0.684	0.455
135	-	2.826	1.768	1.452	1.349	1.298	1.254	1.201	1.128	0.956	0.784	0.701	0.455
140	-	2.902	1.811	1.493	1.387	1.336	1.290	1.235	1.163	0.984	0.803	0.718	0.455
145	-	2.977	1.853	1.534	1.426	1.373	1.327	1.271	1.199	1.011	0.822	0.735	0.455
150	-	3.053	1.895	1.574	1.464	1.411	1.363	1.307	1.235	1.038	0.840	0.752	0.455
155	-	3.129	1.937	1.615	1.503	1.448	1.400	1.343	1.270	1.066	0.859	0.769	0.455
160	-	3.204	1.980	1.656	1.541	1.486	1.436	1.379	1.305	1.093	0.878	0.786	0.455
165	-	3.280	2.022	1.697	1.580	1.523	1.473	1.415	1.340	1.121	0.897	0.803	0.468
170	-	3.356	2.092	1.738	1.618	1.560	1.509	1.451	1.375	1.148	0.916	0.820	0.490
175	-	3.432	2.161	1.778	1.657	1.598	1.546	1.487	1.410	1.175	0.935	0.837	0.512
180	-	3.507	2.231	1.819	1.695	1.635	1.582	1.523	1.445	1.203	0.954	0.854	0.533
185	-	3.560	2.300	1.860	1.734	1.673	1.619	1.560	1.480	1.230	0.972	0.871	0.555
190	-	3.607	2.370	1.901	1.772	1.710	1.656	1.596	1.515	1.260	0.991	0.888	0.577
195	-	3.654	2.439	1.942	1.811	1.748	1.692	1.632	1.549	1.296	1.010	0.905	0.598
200	-	3.702	2.509	1.983	1.849	1.785	1.729	1.668	1.584	1.333	1.029	0.923	0.620

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SC901 & SC902

Loading Tables

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Table IB: I/H Sections - 4 Sided Columns
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	3.749	2.579	2.024	1.888	1.822	1.765	1.704	1.619	1.369	1.048	0.940	0.641
210	-	3.797	2.648	2.083	1.926	1.860	1.802	1.740	1.654	1.405	1.067	0.957	0.663
215	-	3.844	2.718	2.142	1.965	1.897	1.838	1.776	1.689	1.442	1.085	0.974	0.685
220	-	3.891	2.787	2.201	2.003	1.935	1.875	1.812	1.724	1.478	1.104	0.991	0.706
225	-	3.939	2.857	2.260	2.053	1.972	1.911	1.848	1.759	1.514	1.123	1.008	0.728
230	-	3.986	2.927	2.319	2.113	2.010	1.948	1.885	1.794	1.551	1.142	1.025	0.750
235	-	4.033	2.996	2.378	2.174	2.063	1.984	1.921	1.829	1.587	1.161	1.042	0.771
240	-	4.081	3.066	2.437	2.234	2.124	2.021	1.957	1.864	1.623	1.180	1.059	0.793
245	-	4.128	3.135	2.496	2.295	2.186	2.082	1.993	1.899	1.660	1.199	1.076	0.815
250	-	4.175	3.205	2.555	2.355	2.247	2.144	2.034	1.934	1.696	1.217	1.093	0.836
255	-	4.223	3.274	2.614	2.416	2.308	2.206	2.096	1.969	1.732	1.236	1.110	0.858
260	-	4.270	3.344	2.673	2.477	2.369	2.268	2.158	2.003	1.769	1.262	1.127	0.879
265	-	4.317	3.414	2.732	2.537	2.430	2.330	2.221	2.052	1.805	1.308	1.144	0.901
270	-	4.365	3.483	2.792	2.598	2.492	2.392	2.283	2.116	1.841	1.353	1.161	0.923
275	-	4.412	3.554	2.851	2.658	2.553	2.454	2.345	2.180	1.878	1.398	1.178	0.944
280	-	4.460	3.626	2.910	2.719	2.614	2.515	2.407	2.244	1.914	1.443	1.195	0.966
285	-	4.507	3.698	2.969	2.779	2.675	2.577	2.470	2.308	1.950	1.488	1.212	0.988
290	-	4.554	3.770	3.028	2.840	2.737	2.639	2.532	2.372	1.987	1.534	1.229	1.009
295	-	4.602	3.842	3.087	2.900	2.798	2.701	2.594	2.436	2.024	1.579	1.246	1.031
300	-	4.649	3.914	3.146	2.961	2.859	2.763	2.656	2.500	2.088	1.624	1.281	1.053
305	-	4.696	3.986	3.205	3.021	2.920	2.825	2.719	2.564	2.153	1.669	1.321	1.074
310	-	4.744	4.058	3.264	3.082	2.981	2.887	2.781	2.628	2.218	1.714	1.360	1.096
315	-	4.791	4.131	3.323	3.142	3.043	2.949	2.843	2.692	2.283	1.760	1.400	1.118
320	-	4.838	4.203	3.382	3.203	3.104	3.011	2.905	2.756	2.348	1.805	1.439	1.139
325	-	4.886	4.275	3.441	3.263	3.165	3.073	2.967	2.821	2.412	1.850	1.479	1.161
330	-	4.933	4.347	3.500	3.324	3.226	3.135	3.030	2.885	2.477	1.895	1.518	1.182
335	-	4.980	4.419	3.586	3.384	3.288	3.197	3.092	2.949	2.542	1.940	1.558	1.204
340	-	5.028	4.491	3.686	3.445	3.349	3.259	3.154	3.013	2.607	1.986	1.597	1.226
345	-	5.075	4.563	3.787	3.505	3.410	3.321	3.216	3.077	2.672	2.035	1.637	1.247
350	-	5.123	4.635	3.888	3.598	3.471	3.383	3.279	3.141	2.736	2.104	1.676	1.281
355	-	5.170	4.707	3.988	3.703	3.541	3.445	3.341	3.205	2.801	2.173	1.716	1.315
360	-	5.217	4.779	4.089	3.807	3.648	3.507	3.403	3.269	2.866	2.241	1.755	1.350
365	-	5.265	4.851	4.190	3.911	3.755	3.605	3.465	3.333	2.931	2.310	1.795	1.385
370	-	-	4.923	4.290	4.016	3.862	3.715	3.533	3.397	2.996	2.379	1.834	1.420
375	-	-	4.995	4.391	4.120	3.969	3.824	3.644	3.461	3.060	2.448	1.874	1.455
380	-	-	5.068	4.492	4.224	4.076	3.934	3.756	3.528	3.125	2.516	1.913	1.490

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SC901 & SC902

Loading Tables

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Table I4: I/H Sections - 4 Sided Columns
Fire Resistance Period: 90 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	3.302	1.710	1.421	1.111	1.025	0.986	0.954	0.915	0.869	0.755	0.564	0.455	0.455
60	3.602	1.867	1.531	1.165	1.069	1.025	0.990	0.951	0.906	0.790	0.598	0.528	0.473
65	-	2.025	1.641	1.220	1.114	1.065	1.025	0.986	0.942	0.825	0.632	0.552	0.491
70	-	2.235	1.751	1.285	1.158	1.104	1.061	1.022	0.978	0.859	0.666	0.577	0.509
75	-	2.444	1.860	1.363	1.202	1.144	1.097	1.058	1.014	0.894	0.700	0.601	0.527
80	-	2.653	1.970	1.441	1.247	1.183	1.133	1.094	1.050	0.929	0.734	0.626	0.545
85	-	2.863	2.068	1.520	1.290	1.222	1.169	1.130	1.087	0.964	0.768	0.650	0.563
90	-	3.072	2.154	1.598	1.333	1.263	1.204	1.166	1.123	0.998	0.802	0.675	0.581
95	-	3.282	2.241	1.676	1.376	1.307	1.240	1.202	1.159	1.033	0.836	0.699	0.599
100	-	3.491	2.327	1.755	1.419	1.351	1.283	1.238	1.195	1.068	0.871	0.724	0.617
105	-	3.582	2.414	1.833	1.462	1.395	1.328	1.280	1.231	1.102	0.905	0.748	0.635
110	-	3.654	2.501	1.911	1.505	1.439	1.373	1.324	1.271	1.137	0.939	0.773	0.653
115	-	3.725	2.587	1.990	1.548	1.483	1.418	1.368	1.313	1.172	0.973	0.797	0.671
120	-	3.796	2.674	2.062	1.591	1.527	1.463	1.412	1.355	1.206	1.007	0.822	0.689
125	-	3.868	2.760	2.131	1.635	1.570	1.508	1.457	1.398	1.241	1.041	0.846	0.707
130	-	3.939	2.847	2.199	1.678	1.614	1.553	1.501	1.440	1.279	1.075	0.871	0.725
135	-	4.011	2.934	2.268	1.721	1.658	1.598	1.545	1.483	1.317	1.109	0.895	0.743
140	-	4.082	3.020	2.336	1.764	1.702	1.643	1.589	1.525	1.355	1.143	0.920	0.762
145	-	4.153	3.107	2.404	1.807	1.746	1.688	1.633	1.567	1.394	1.177	0.944	0.780
150	-	4.225	3.193	2.473	1.850	1.790	1.733	1.678	1.610	1.432	1.212	0.968	0.798
155	-	4.296	3.280	2.541	1.893	1.834	1.778	1.722	1.652	1.471	1.246	0.993	0.816
160	-	4.368	3.367	2.610	1.936	1.878	1.823	1.766	1.694	1.509	1.281	1.017	0.834
165	-	4.439	3.453	2.678	1.979	1.922	1.868	1.810	1.737	1.548	1.316	1.042	0.852
170	-	4.511	3.533	2.747	2.022	1.965	1.913	1.854	1.779	1.586	1.351	1.066	0.870
175	-	4.582	3.590	2.815	2.110	2.009	1.958	1.899	1.822	1.625	1.386	1.091	0.888
180	-	4.653	3.646	2.884	2.198	2.081	2.003	1.943	1.864	1.663	1.422	1.115	0.906
185	-	4.725	3.702	2.952	2.286	2.164	2.067	1.987	1.906	1.701	1.457	1.140	0.924
190	-	4.796	3.759	3.020	2.374	2.247	2.146	2.038	1.949	1.740	1.492	1.164	0.942
195	-	4.868	3.815	3.089	2.462	2.331	2.226	2.113	1.991	1.778	1.527	1.189	0.960
200	-	4.939	3.872	3.157	2.550	2.414	2.305	2.188	2.041	1.817	1.562	1.213	0.978

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SC901 & SC902

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Fire Resistance Period: 90 Minutes

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Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	5.010	3.928	3.226	2.638	2.497	2.385	2.263	2.112	1.855	1.598	1.238	0.996
210	-	5.082	3.984	3.294	2.726	2.580	2.464	2.338	2.183	1.894	1.633	1.269	1.014
215	-	5.153	4.041	3.363	2.814	2.663	2.544	2.412	2.254	1.932	1.668	1.307	1.032
220	-	5.225	4.097	3.431	2.902	2.746	2.623	2.487	2.324	1.970	1.703	1.344	1.050
225	-	5.296	4.153	3.499	2.990	2.829	2.702	2.562	2.395	2.009	1.738	1.382	1.068
230	-	-	4.210	3.567	3.078	2.913	2.782	2.637	2.466	2.067	1.774	1.420	1.086
235	-	-	4.266	3.634	3.166	2.996	2.861	2.712	2.537	2.134	1.809	1.458	1.104
240	-	-	4.323	3.701	3.254	3.079	2.941	2.787	2.607	2.202	1.844	1.496	1.122
245	-	-	4.379	3.767	3.342	3.162	3.020	2.862	2.678	2.270	1.879	1.534	1.140
250	-	-	4.435	3.834	3.430	3.245	3.099	2.937	2.749	2.338	1.914	1.572	1.158
255	-	-	4.492	3.901	3.518	3.328	3.179	3.012	2.819	2.405	1.950	1.610	1.177
260	-	-	4.548	3.968	3.599	3.411	3.258	3.087	2.890	2.473	1.985	1.648	1.195
265	-	-	4.605	4.035	3.681	3.495	3.338	3.162	2.961	2.541	2.020	1.685	1.213
270	-	-	4.661	4.102	3.762	3.581	3.417	3.237	3.032	2.609	2.090	1.723	1.231
275	-	-	4.717	4.169	3.843	3.669	3.496	3.312	3.102	2.676	2.161	1.761	1.249
280	-	-	4.774	4.235	3.925	3.757	3.586	3.387	3.173	2.744	2.233	1.799	1.291
285	-	-	4.830	4.302	4.006	3.845	3.681	3.462	3.244	2.812	2.305	1.837	1.334
290	-	-	4.887	4.369	4.088	3.933	3.775	3.542	3.315	2.880	2.376	1.875	1.378
295	-	-	4.943	4.436	4.169	4.021	3.870	3.646	3.385	2.947	2.448	1.913	1.422
300	-	-	4.999	4.503	4.250	4.109	3.964	3.750	3.456	3.015	2.519	1.951	1.466
305	-	-	5.056	4.570	4.332	4.197	4.059	3.854	3.531	3.083	2.591	1.988	1.509
310	-	-	5.112	4.637	4.413	4.285	4.153	3.958	3.651	3.151	2.663	2.031	1.553
315	-	-	5.169	4.703	4.495	4.372	4.247	4.061	3.771	3.218	2.734	2.105	1.597
320	-	-	5.225	4.770	4.576	4.460	4.342	4.165	3.891	3.286	2.806	2.179	1.641
325	-	-	5.281	4.837	4.657	4.548	4.436	4.269	4.011	3.354	2.877	2.253	1.685
330	-	-	5.338	4.904	4.739	4.636	4.531	4.373	4.131	3.422	2.949	2.327	1.728
335	-	-	-	4.971	4.820	4.724	4.625	4.477	4.252	3.489	3.021	2.402	1.772
340	-	-	-	5.038	4.901	4.812	4.720	4.580	4.372	3.601	3.092	2.476	1.816
345	-	-	-	5.105	4.983	4.900	4.814	4.684	4.492	3.752	3.164	2.550	1.860
350	-	-	-	5.172	5.064	4.988	4.909	4.788	4.612	3.902	3.235	2.624	1.903
355	-	-	-	5.238	5.146	5.076	5.003	4.892	4.732	4.053	3.307	2.698	1.947
360	-	-	-	5.305	5.227	5.164	5.097	4.995	4.852	4.203	3.378	2.773	1.991
365	-	-	-	5.372	5.308	5.252	5.192	5.099	4.972	4.354	3.450	2.847	2.044
370	-	-	-	-	-	5.340	5.286	5.203	5.092	4.504	3.523	2.921	2.118
375	-	-	-	-	-	-	5.381	5.307	5.212	4.655	3.690	2.995	2.193
380	-	-	-	-	-	-	-	-	5.333	4.805	3.857	3.069	2.267

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table I5: I/H Sections - 4 Sided Columns
Fire Resistance Period: IO5 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	-	2.156	1.646	1.454	1.326	1.253	1.213	1.168	1.117	0.989	0.841	0.683	0.522
60	-	2.706	1.796	1.561	1.434	1.362	1.293	1.223	1.166	1.024	0.876	0.717	0.551
65	-	3.256	1.947	1.669	1.542	1.471	1.403	1.307	1.215	1.058	0.910	0.750	0.579
70	-	-	2.132	1.777	1.650	1.580	1.513	1.420	1.269	1.092	0.944	0.784	0.607
75	-	-	2.351	1.885	1.758	1.689	1.623	1.533	1.338	1.126	0.979	0.817	0.635
80	-	-	2.570	1.993	1.866	1.798	1.733	1.647	1.407	1.161	1.013	0.851	0.663
85	-	-	2.789	2.099	1.974	1.907	1.843	1.760	1.475	1.195	1.047	0.884	0.691
90	-	-	3.008	2.204	2.070	2.016	1.953	1.873	1.544	1.229	1.081	0.918	0.719
95	-	-	3.226	2.309	2.156	2.099	2.051	1.987	1.613	1.267	1.116	0.951	0.747
100	-	-	3.445	2.414	2.242	2.179	2.127	2.071	1.681	1.312	1.150	0.985	0.775
105	-	-	3.584	2.519	2.328	2.260	2.203	2.142	1.750	1.356	1.184	1.018	0.804
110	-	-	3.680	2.624	2.414	2.341	2.280	2.213	1.819	1.401	1.219	1.052	0.832
115	-	-	3.776	2.729	2.500	2.422	2.356	2.285	1.887	1.446	1.253	1.085	0.860
120	-	-	3.873	2.834	2.587	2.503	2.432	2.356	1.956	1.490	1.294	1.119	0.888
125	-	-	3.969	2.940	2.673	2.584	2.509	2.427	2.025	1.535	1.335	1.152	0.916
130	-	-	4.065	3.045	2.759	2.665	2.585	2.498	2.108	1.579	1.376	1.186	0.944
135	-	-	4.161	3.150	2.845	2.745	2.661	2.569	2.191	1.624	1.417	1.220	0.972
140	-	-	4.258	3.255	2.931	2.826	2.738	2.641	2.273	1.668	1.458	1.253	1.000
145	-	-	4.354	3.360	3.017	2.907	2.814	2.712	2.356	1.713	1.498	1.290	1.029
150	-	-	4.450	3.465	3.104	2.988	2.890	2.783	2.439	1.758	1.539	1.326	1.057
155	-	-	4.546	3.554	3.190	3.069	2.967	2.854	2.521	1.802	1.580	1.362	1.085
160	-	-	4.643	3.623	3.276	3.150	3.043	2.925	2.604	1.847	1.621	1.399	1.113
165	-	-	4.739	3.693	3.362	3.230	3.120	2.997	2.687	1.891	1.662	1.435	1.141
170	-	-	4.835	3.763	3.448	3.311	3.196	3.068	2.769	1.936	1.703	1.471	1.169
175	-	-	4.931	3.833	3.533	3.392	3.272	3.139	2.852	1.981	1.743	1.507	1.197
180	-	-	5.028	3.903	3.608	3.473	3.349	3.210	2.935	2.029	1.784	1.544	1.225
185	-	-	5.124	3.973	3.683	3.552	3.425	3.281	3.017	2.123	1.825	1.580	1.254
190	-	-	5.220	4.042	3.758	3.628	3.501	3.353	3.100	2.218	1.866	1.616	1.290
195	-	-	5.316	4.112	3.833	3.705	3.579	3.424	3.183	2.312	1.907	1.653	1.326
200	-	-	-	4.182	3.908	3.781	3.657	3.495	3.265	2.406	1.948	1.689	1.361

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table I5: I/H Sections - 4 Sided Columns
Fire Resistance Period: IO5 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	-	-	4.252	3.983	3.858	3.735	3.572	3.348	2.501	1.988	1.725	1.397
210	-	-	-	4.322	4.058	3.934	3.812	3.652	3.431	2.595	2.036	1.762	1.433
215	-	-	-	4.392	4.133	4.010	3.890	3.732	3.513	2.690	2.114	1.798	1.468
220	-	-	-	4.461	4.208	4.087	3.968	3.812	3.597	2.784	2.192	1.834	1.504
225	-	-	-	4.531	4.283	4.163	4.046	3.891	3.681	2.879	2.270	1.871	1.539
230	-	-	-	4.601	4.358	4.240	4.124	3.971	3.765	2.973	2.348	1.907	1.575
235	-	-	-	4.671	4.433	4.316	4.202	4.051	3.849	3.068	2.427	1.943	1.611
240	-	-	-	4.741	4.508	4.392	4.280	4.131	3.933	3.162	2.505	1.980	1.646
245	-	-	-	4.811	4.583	4.469	4.358	4.211	4.017	3.257	2.583	2.016	1.682
250	-	-	-	4.880	4.658	4.545	4.436	4.291	4.100	3.351	2.661	2.085	1.718
255	-	-	-	4.950	4.733	4.622	4.513	4.371	4.184	3.446	2.739	2.161	1.753
260	-	-	-	5.020	4.808	4.698	4.591	4.451	4.268	3.542	2.817	2.237	1.789
265	-	-	-	5.090	4.883	4.775	4.669	4.531	4.352	3.648	2.895	2.313	1.825
270	-	-	-	5.160	4.958	4.851	4.747	4.611	4.436	3.754	2.974	2.389	1.860
275	-	-	-	5.230	5.033	4.927	4.825	4.691	4.520	3.859	3.052	2.465	1.896
280	-	-	-	5.299	5.108	5.004	4.903	4.771	4.604	3.965	3.130	2.541	1.931
285	-	-	-	-	5.183	5.080	4.981	4.851	4.688	4.071	3.208	2.617	1.967
290	-	-	-	-	5.258	5.157	5.059	4.931	4.772	4.176	3.286	2.693	2.003
295	-	-	-	-	5.333	5.233	5.137	5.011	4.856	4.282	3.364	2.769	2.059
300	-	-	-	-	-	5.309	5.214	5.091	4.939	4.387	3.442	2.845	2.140
305	-	-	-	-	-	5.386	5.292	5.171	5.023	4.493	3.521	2.920	2.220
310	-	-	-	-	-	-	5.370	5.251	5.107	4.599	3.683	2.996	2.301
315	-	-	-	-	-	-	-	5.331	5.191	4.704	3.847	3.072	2.381
320	-	-	-	-	-	-	-	-	5.275	4.810	4.010	3.148	2.462
325	-	-	-	-	-	-	-	-	5.359	4.916	4.174	3.224	2.542
330	-	-	-	-	-	-	-	-	-	5.021	4.337	3.300	2.623
335	-	-	-	-	-	-	-	-	-	5.127	4.500	3.376	2.703
340	-	-	-	-	-	-	-	-	-	5.233	4.664	3.452	2.784
345	-	-	-	-	-	-	-	-	-	5.338	4.827	3.541	2.864
350	-	-	-	-	-	-	-	-	-	-	4.990	3.756	2.945
355	-	-	-	-	-	-	-	-	-	-	5.154	3.970	3.026
360	-	-	-	-	-	-	-	-	-	-	-	4.185	3.106
365	-	-	-	-	-	-	-	-	-	-	-	4.400	3.187
370	-	-	-	-	-	-	-	-	-	-	-	4.614	3.267
375	-	-	-	-	-	-	-	-	-	-	-	4.829	3.348
380	-	-	-	-	-	-	-	-	-	-	-	5.044	3.428

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table IG: I/H Sections - 4 Sided Columns
Fire Resistance Period: 120 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	-	-	1.945	1.622	1.518	1.483	1.483	1.483	1.416	1.216	1.057	0.885	0.718
60	-	-	2.327	1.771	1.657	1.604	1.589	1.589	1.520	1.291	1.095	0.919	0.752
65	-	-	2.864	1.920	1.796	1.738	1.694	1.694	1.625	1.400	1.132	0.954	0.785
70	-	-	3.401	2.095	1.934	1.872	1.819	1.799	1.729	1.508	1.170	0.988	0.819
75	-	-	-	2.327	2.087	2.006	1.949	1.905	1.833	1.617	1.207	1.023	0.852
80	-	-	-	2.559	2.264	2.160	2.082	2.010	1.937	1.725	1.245	1.057	0.886
85	-	-	-	2.791	2.442	2.316	2.221	2.130	2.041	1.834	1.286	1.092	0.920
90	-	-	-	3.023	2.619	2.471	2.360	2.251	2.145	1.942	1.329	1.126	0.953
95	-	-	-	3.255	2.796	2.627	2.500	2.372	2.248	2.043	1.371	1.161	0.987
100	-	-	-	3.487	2.973	2.783	2.639	2.494	2.352	2.123	1.413	1.195	1.021
105	-	-	-	3.719	3.150	2.939	2.778	2.615	2.455	2.202	1.456	1.230	1.054
110	-	-	-	-	3.327	3.095	2.917	2.737	2.559	2.282	1.498	1.267	1.088
115	-	-	-	-	3.504	3.251	3.056	2.858	2.662	2.361	1.540	1.309	1.122
120	-	-	-	-	3.625	3.406	3.195	2.979	2.766	2.441	1.583	1.351	1.155
125	-	-	-	-	3.739	3.551	3.334	3.101	2.869	2.521	1.625	1.393	1.189
130	-	-	-	-	3.854	3.664	3.473	3.222	2.973	2.600	1.668	1.435	1.223
135	-	-	-	-	3.968	3.777	3.593	3.343	3.076	2.680	1.710	1.477	1.258
140	-	-	-	-	4.083	3.890	3.702	3.465	3.180	2.759	1.752	1.519	1.300
145	-	-	-	-	4.198	4.003	3.812	3.579	3.283	2.839	1.795	1.561	1.342
150	-	-	-	-	4.312	4.116	3.921	3.686	3.387	2.918	1.837	1.603	1.384
155	-	-	-	-	4.427	4.228	4.031	3.794	3.490	2.998	1.879	1.645	1.426
160	-	-	-	-	4.541	4.341	4.141	3.902	3.597	3.078	1.922	1.687	1.467
165	-	-	-	-	4.656	4.454	4.250	4.009	3.706	3.157	1.964	1.729	1.509
170	-	-	-	-	4.771	4.567	4.360	4.117	3.814	3.237	2.006	1.770	1.551
175	-	-	-	-	4.885	4.680	4.469	4.225	3.923	3.316	2.103	1.812	1.593
180	-	-	-	-	5.000	4.793	4.579	4.332	4.032	3.396	2.230	1.854	1.635
185	-	-	-	-	5.114	4.906	4.688	4.440	4.140	3.476	2.358	1.896	1.677
190	-	-	-	-	5.229	5.019	4.798	4.548	4.249	3.563	2.485	1.938	1.719
195	-	-	-	-	5.344	5.132	4.908	4.655	4.357	3.660	2.613	1.980	1.761
200	-	-	-	-	-	5.245	5.017	4.763	4.466	3.757	2.740	2.022	1.803

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table IG: I/H Sections - 4 Sided Columns
Fire Resistance Period: 120 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	-	-	-	-	5.358	5.127	4.871	4.575	3.854	2.868	2.116	1.845
210	-	-	-	-	-	-	5.236	4.978	4.683	3.952	2.996	2.209	1.887
215	-	-	-	-	-	-	5.346	5.086	4.792	4.049	3.123	2.302	1.929
220	-	-	-	-	-	-	-	5.194	4.900	4.146	3.251	2.395	1.971
225	-	-	-	-	-	-	-	5.301	5.009	4.243	3.378	2.489	2.012
230	-	-	-	-	-	-	-	-	5.118	4.341	3.506	2.582	2.078
235	-	-	-	-	-	-	-	-	5.226	4.438	3.625	2.675	2.150
240	-	-	-	-	-	-	-	-	5.335	4.535	3.743	2.768	2.222
245	-	-	-	-	-	-	-	-	-	4.632	3.861	2.862	2.294
250	-	-	-	-	-	-	-	-	-	4.730	3.979	2.955	2.366
255	-	-	-	-	-	-	-	-	-	4.827	4.097	3.048	2.439
260	-	-	-	-	-	-	-	-	-	4.924	4.215	3.141	2.511
265	-	-	-	-	-	-	-	-	-	5.021	4.333	3.235	2.583
270	-	-	-	-	-	-	-	-	-	5.119	4.452	3.328	2.655
275	-	-	-	-	-	-	-	-	-	5.216	4.570	3.421	2.727
280	-	-	-	-	-	-	-	-	-	5.313	4.688	3.514	2.799
285	-	-	-	-	-	-	-	-	-	-	4.806	3.668	2.871
290	-	-	-	-	-	-	-	-	-	-	4.924	3.826	2.944
295	-	-	-	-	-	-	-	-	-	-	5.042	3.984	3.016
300	-	-	-	-	-	-	-	-	-	-	5.160	4.142	3.088
305	-	-	-	-	-	-	-	-	-	-	5.278	4.300	3.160
310	-	-	-	-	-	-	-	-	-	-	-	4.458	3.232
315	-	-	-	-	-	-	-	-	-	-	-	4.616	3.304
320	-	-	-	-	-	-	-	-	-	-	-	4.774	3.376
325	-	-	-	-	-	-	-	-	-	-	-	4.932	3.449
330	-	-	-	-	-	-	-	-	-	-	-	5.090	3.521
335	-	-	-	-	-	-	-	-	-	-	-	5.248	3.774
340	-	-	-	-	-	-	-	-	-	-	-	-	4.028
345	-	-	-	-	-	-	-	-	-	-	-	-	4.282
350	-	-	-	-	-	-	-	-	-	-	-	-	4.536
355	-	-	-	-	-	-	-	-	-	-	-	-	4.790
360	-	-	-	-	-	-	-	-	-	-	-	-	5.043
365	-	-	-	-	-	-	-	-	-	-	-	-	-
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table I7: I/H Sections - 4 Sided Beams
Fire Resistance Period: 15 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
60	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
65	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
70	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
75	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
80	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
85	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
90	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
95	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
100	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
105	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
110	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
115	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
120	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
125	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
130	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
135	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
140	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
145	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
150	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
155	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
160	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
165	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
170	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
175	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
180	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
185	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
190	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
195	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
200	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table I7: I/H Sections - 4 Sided Beams
Fire Resistance Period: 15 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
210	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
215	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
220	0.456	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
225	0.476	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
230	0.496	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
235	0.517	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
240	0.537	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
245	0.557	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
250	0.578	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
255	0.598	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
260	0.618	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
265	0.639	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
270	0.659	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
275	0.680	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
280	0.700	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
285	0.720	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
290	0.741	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
295	0.761	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
300	0.781	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
305	0.802	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
310	0.822	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
315	0.842	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
320	0.863	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
325	0.883	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
330	0.903	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
335	0.924	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
340	0.944	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
345	0.965	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
350	0.985	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
355	1.005	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
360	1.026	0.468	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
365	1.046	0.482	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
370	1.066	0.495	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
375	1.087	0.509	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
380	1.107	0.523	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table I8: I/H Sections - 4 Sided Beams
Fire Resistance Period: 30 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
60	0.500	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
65	0.539	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
70	0.577	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
75	0.616	0.468	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
80	0.654	0.486	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
85	0.692	0.503	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
90	0.731	0.520	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
95	0.769	0.537	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
100	0.808	0.554	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
105	0.846	0.571	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
110	0.884	0.588	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
115	0.923	0.605	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
120	0.961	0.622	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
125	0.999	0.639	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
130	1.038	0.656	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
135	1.076	0.673	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
140	1.115	0.690	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
145	1.153	0.707	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
150	1.191	0.725	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
155	1.230	0.742	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
160	1.268	0.759	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
165	1.307	0.776	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
170	1.345	0.793	0.471	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
175	1.384	0.810	0.490	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
180	1.422	0.827	0.508	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
185	1.460	0.844	0.527	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
190	1.499	0.861	0.545	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
195	1.537	0.878	0.564	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
200	1.576	0.895	0.582	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table I8: I/H Sections - 4 Sided Beams
Fire Resistance Period: 30 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	1.614	0.912	0.601	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
210	1.653	0.929	0.619	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
215	1.691	0.947	0.638	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
220	1.729	0.964	0.656	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
225	1.768	0.981	0.675	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
230	1.806	0.998	0.693	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
235	1.845	1.015	0.712	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
240	1.883	1.032	0.730	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
245	1.922	1.049	0.749	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
250	1.960	1.066	0.767	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
255	1.999	1.083	0.786	0.468	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
260	2.037	1.100	0.804	0.487	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
265	2.075	1.117	0.823	0.506	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
270	2.113	1.134	0.841	0.526	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
275	2.151	1.151	0.860	0.545	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
280	2.189	1.168	0.878	0.564	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
285	2.227	1.186	0.897	0.583	0.464	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
290	2.265	1.203	0.915	0.602	0.483	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
295	2.302	1.220	0.933	0.621	0.502	0.462	0.455	0.455	0.455	0.455	0.455	0.455	0.455
300	2.340	1.237	0.952	0.640	0.520	0.480	0.455	0.455	0.455	0.455	0.455	0.455	0.455
305	2.378	1.257	0.970	0.659	0.539	0.498	0.462	0.455	0.455	0.455	0.455	0.455	0.455
310	2.416	1.288	0.989	0.678	0.558	0.517	0.480	0.455	0.455	0.455	0.455	0.455	0.455
315	2.454	1.319	1.007	0.698	0.577	0.535	0.497	0.455	0.455	0.455	0.455	0.455	0.455
320	2.492	1.350	1.026	0.717	0.596	0.553	0.515	0.472	0.455	0.455	0.455	0.455	0.455
325	2.530	1.382	1.044	0.736	0.615	0.571	0.533	0.489	0.455	0.455	0.455	0.455	0.455
330	2.568	1.413	1.063	0.755	0.633	0.589	0.550	0.506	0.455	0.455	0.455	0.455	0.455
335	2.606	1.444	1.081	0.774	0.652	0.608	0.568	0.523	0.469	0.455	0.455	0.455	0.455
340	2.644	1.475	1.100	0.793	0.671	0.626	0.586	0.540	0.485	0.455	0.455	0.455	0.455
345	2.682	1.506	1.118	0.812	0.690	0.644	0.603	0.557	0.501	0.455	0.455	0.455	0.455
350	2.720	1.537	1.137	0.831	0.709	0.662	0.621	0.574	0.518	0.455	0.455	0.455	0.455
355	2.758	1.569	1.155	0.850	0.727	0.680	0.639	0.591	0.534	0.455	0.455	0.455	0.455
360	2.796	1.600	1.174	0.870	0.746	0.699	0.656	0.608	0.550	0.455	0.455	0.455	0.455
365	2.834	1.631	1.192	0.889	0.765	0.717	0.674	0.625	0.566	0.455	0.455	0.455	0.455
370	2.872	1.662	1.211	0.908	0.784	0.735	0.692	0.642	0.583	0.455	0.455	0.455	0.455
375	2.910	1.693	1.229	0.927	0.803	0.753	0.709	0.659	0.599	0.455	0.455	0.455	0.455
380	2.948	1.724	1.248	0.946	0.822	0.771	0.727	0.676	0.615	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table I9: I/H Sections - 4 Sided Beams
Fire Resistance Period: 45 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.948	0.520	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
60	1.017	0.561	0.498	0.459	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
65	1.085	0.602	0.520	0.476	0.456	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
70	1.154	0.644	0.542	0.492	0.472	0.460	0.455	0.455	0.455	0.455	0.455	0.455	0.455
75	1.222	0.685	0.564	0.509	0.487	0.476	0.455	0.455	0.455	0.455	0.455	0.455	0.455
80	1.277	0.726	0.585	0.526	0.503	0.491	0.455	0.455	0.455	0.455	0.455	0.455	0.455
85	1.322	0.767	0.607	0.543	0.519	0.507	0.455	0.455	0.455	0.455	0.455	0.455	0.455
90	1.367	0.809	0.629	0.560	0.535	0.522	0.455	0.455	0.455	0.455	0.455	0.455	0.455
95	1.412	0.850	0.651	0.576	0.551	0.538	0.455	0.455	0.455	0.455	0.455	0.455	0.455
100	1.457	0.891	0.672	0.593	0.567	0.553	0.455	0.455	0.455	0.455	0.455	0.455	0.455
105	1.502	0.933	0.694	0.610	0.582	0.568	0.455	0.455	0.455	0.455	0.455	0.455	0.455
110	1.546	0.974	0.716	0.627	0.598	0.584	0.455	0.455	0.455	0.455	0.455	0.455	0.455
115	1.591	1.015	0.738	0.643	0.614	0.599	0.455	0.455	0.455	0.455	0.455	0.455	0.455
120	1.636	1.056	0.759	0.660	0.630	0.615	0.455	0.455	0.455	0.455	0.455	0.455	0.455
125	1.681	1.098	0.781	0.677	0.646	0.630	0.455	0.455	0.455	0.455	0.455	0.455	0.455
130	1.726	1.139	0.803	0.694	0.662	0.646	0.455	0.455	0.455	0.455	0.455	0.455	0.455
135	1.771	1.180	0.825	0.711	0.677	0.661	0.455	0.455	0.455	0.455	0.455	0.455	0.455
140	1.816	1.221	0.846	0.727	0.693	0.676	0.455	0.455	0.455	0.455	0.455	0.455	0.455
145	1.861	1.260	0.868	0.744	0.709	0.692	0.469	0.455	0.455	0.455	0.455	0.455	0.455
150	1.906	1.291	0.890	0.761	0.725	0.707	0.490	0.455	0.455	0.455	0.455	0.455	0.455
155	1.951	1.322	0.912	0.778	0.741	0.723	0.510	0.472	0.455	0.455	0.455	0.455	0.455
160	1.996	1.354	0.934	0.795	0.757	0.738	0.531	0.492	0.455	0.455	0.455	0.455	0.455
165	2.048	1.385	0.955	0.811	0.772	0.753	0.551	0.512	0.463	0.455	0.455	0.455	0.455
170	2.110	1.416	0.977	0.828	0.788	0.769	0.572	0.532	0.483	0.455	0.455	0.455	0.455
175	2.173	1.448	0.999	0.845	0.804	0.784	0.592	0.553	0.503	0.455	0.455	0.455	0.455
180	2.235	1.479	1.021	0.862	0.820	0.800	0.613	0.573	0.523	0.455	0.455	0.455	0.455
185	2.297	1.510	1.042	0.879	0.836	0.815	0.633	0.593	0.543	0.455	0.455	0.455	0.455
190	2.359	1.542	1.064	0.895	0.852	0.831	0.654	0.613	0.563	0.455	0.455	0.455	0.455
195	2.422	1.573	1.086	0.912	0.868	0.846	0.674	0.634	0.583	0.455	0.455	0.455	0.455
200	2.484	1.604	1.108	0.929	0.883	0.861	0.695	0.654	0.603	0.455	0.455	0.455	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table I9: I/H Sections - 4 Sided Beams
Fire Resistance Period: 45 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	2.546	1.636	1.129	0.946	0.899	0.877	0.715	0.674	0.623	0.462	0.455	0.455	0.455
210	2.608	1.667	1.151	0.963	0.915	0.892	0.736	0.694	0.643	0.481	0.455	0.455	0.455
215	2.671	1.698	1.173	0.979	0.931	0.908	0.756	0.715	0.663	0.501	0.455	0.455	0.455
220	2.733	1.730	1.195	0.996	0.947	0.923	0.777	0.735	0.683	0.521	0.455	0.455	0.455
225	2.795	1.761	1.217	1.013	0.963	0.938	0.797	0.755	0.703	0.541	0.455	0.455	0.455
230	2.857	1.792	1.238	1.030	0.978	0.954	0.818	0.775	0.723	0.560	0.455	0.455	0.455
235	2.920	1.824	1.267	1.047	0.994	0.969	0.838	0.796	0.743	0.580	0.455	0.455	0.455
240	2.982	1.855	1.302	1.063	1.010	0.985	0.859	0.816	0.763	0.600	0.455	0.455	0.455
245	3.044	1.886	1.338	1.080	1.026	1.000	0.879	0.836	0.783	0.619	0.455	0.455	0.455
250	3.107	1.918	1.374	1.097	1.042	1.016	0.900	0.856	0.803	0.639	0.455	0.455	0.455
255	3.169	1.949	1.410	1.114	1.058	1.031	0.920	0.877	0.823	0.659	0.455	0.455	0.455
260	3.231	1.980	1.446	1.130	1.073	1.046	0.941	0.897	0.843	0.678	0.455	0.455	0.455
265	3.293	2.012	1.481	1.147	1.089	1.062	0.961	0.917	0.863	0.698	0.455	0.455	0.455
270	3.356	2.053	1.517	1.164	1.105	1.077	0.982	0.937	0.883	0.718	0.455	0.455	0.455
275	3.418	2.100	1.553	1.181	1.121	1.093	1.002	0.958	0.903	0.738	0.457	0.455	0.455
280	3.480	2.146	1.589	1.198	1.137	1.108	1.023	0.978	0.923	0.757	0.478	0.455	0.455
285	3.538	2.193	1.624	1.214	1.153	1.123	1.043	0.998	0.943	0.777	0.498	0.455	0.455
290	3.588	2.239	1.660	1.231	1.168	1.139	1.064	1.019	0.963	0.797	0.518	0.455	0.455
295	3.638	2.286	1.696	1.248	1.184	1.154	1.084	1.039	0.983	0.816	0.539	0.455	0.455
300	3.687	2.332	1.732	1.282	1.200	1.170	1.105	1.059	1.003	0.836	0.559	0.455	0.455
305	3.737	2.379	1.768	1.318	1.216	1.185	1.125	1.079	1.023	0.856	0.579	0.455	0.455
310	3.787	2.426	1.803	1.354	1.232	1.201	1.146	1.100	1.043	0.875	0.600	0.455	0.455
315	3.837	2.472	1.839	1.391	1.248	1.216	1.166	1.120	1.063	0.895	0.620	0.455	0.455
320	3.886	2.519	1.875	1.427	1.279	1.231	1.187	1.140	1.083	0.915	0.640	0.455	0.455
325	3.936	2.565	1.911	1.463	1.314	1.247	1.207	1.160	1.103	0.935	0.661	0.455	0.455
330	3.986	2.612	1.947	1.499	1.349	1.277	1.228	1.181	1.123	0.954	0.681	0.459	0.455
335	4.035	2.658	1.982	1.536	1.384	1.311	1.248	1.201	1.143	0.974	0.702	0.476	0.455
340	4.085	2.705	2.018	1.572	1.419	1.345	1.281	1.221	1.163	0.994	0.722	0.493	0.455
345	4.135	2.751	2.063	1.608	1.453	1.380	1.314	1.241	1.183	1.013	0.742	0.510	0.455
350	4.185	2.798	2.108	1.644	1.488	1.414	1.348	1.269	1.203	1.033	0.763	0.527	0.455
355	4.234	2.844	2.153	1.680	1.523	1.448	1.381	1.301	1.223	1.053	0.783	0.544	0.455
360	4.284	2.891	2.198	1.717	1.558	1.482	1.414	1.334	1.243	1.072	0.803	0.561	0.455
365	4.334	2.938	2.244	1.753	1.593	1.516	1.448	1.367	1.271	1.092	0.824	0.578	0.455
370	4.384	2.984	2.289	1.789	1.627	1.550	1.481	1.399	1.303	1.112	0.844	0.596	0.455
375	4.433	3.031	2.334	1.825	1.662	1.584	1.515	1.432	1.334	1.131	0.864	0.613	0.455
380	4.483	3.077	2.380	1.862	1.697	1.619	1.548	1.464	1.366	1.151	0.885	0.630	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table 20: I/H Sections - 4 Sided Beams
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	1.466	0.972	0.695	0.514	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455	0.455
60	1.597	1.031	0.736	0.546	0.526	0.517	0.510	0.502	0.492	0.457	0.455	0.455	0.455
65	1.727	1.090	0.777	0.578	0.552	0.541	0.532	0.522	0.511	0.474	0.455	0.455	0.455
70	1.857	1.148	0.818	0.610	0.579	0.565	0.554	0.542	0.529	0.491	0.455	0.455	0.455
75	1.988	1.207	0.858	0.642	0.605	0.589	0.576	0.562	0.548	0.508	0.455	0.455	0.455
80	2.103	1.260	0.899	0.674	0.632	0.613	0.598	0.582	0.566	0.525	0.455	0.455	0.455
85	2.214	1.300	0.940	0.706	0.658	0.637	0.621	0.602	0.585	0.542	0.455	0.455	0.455
90	2.325	1.340	0.981	0.738	0.685	0.662	0.643	0.622	0.604	0.559	0.455	0.455	0.455
95	2.436	1.380	1.022	0.770	0.711	0.686	0.665	0.641	0.622	0.576	0.455	0.455	0.455
100	2.546	1.420	1.062	0.802	0.738	0.710	0.687	0.661	0.641	0.593	0.455	0.455	0.455
105	2.657	1.460	1.103	0.834	0.764	0.734	0.709	0.681	0.659	0.610	0.455	0.455	0.455
110	2.768	1.500	1.144	0.866	0.791	0.758	0.731	0.701	0.678	0.627	0.455	0.455	0.455
115	2.879	1.540	1.185	0.898	0.817	0.783	0.753	0.721	0.697	0.644	0.455	0.455	0.455
120	2.989	1.580	1.226	0.930	0.844	0.807	0.776	0.741	0.715	0.661	0.455	0.455	0.455
125	3.100	1.620	1.265	0.962	0.871	0.831	0.798	0.760	0.734	0.678	0.455	0.455	0.455
130	3.211	1.660	1.302	0.994	0.897	0.855	0.820	0.780	0.752	0.695	0.455	0.455	0.455
135	3.322	1.700	1.339	1.026	0.924	0.879	0.842	0.800	0.771	0.712	0.455	0.455	0.455
140	3.432	1.740	1.375	1.058	0.950	0.904	0.864	0.820	0.789	0.729	0.455	0.455	0.455
145	3.529	1.780	1.412	1.090	0.977	0.928	0.886	0.840	0.808	0.746	0.455	0.455	0.455
150	3.571	1.820	1.449	1.122	1.003	0.952	0.909	0.860	0.827	0.763	0.456	0.455	0.455
155	3.612	1.860	1.486	1.154	1.030	0.976	0.931	0.880	0.845	0.780	0.477	0.455	0.455
160	3.654	1.899	1.523	1.186	1.056	1.000	0.953	0.899	0.864	0.797	0.499	0.455	0.455
165	3.695	1.939	1.559	1.217	1.083	1.025	0.975	0.919	0.882	0.814	0.521	0.455	0.455
170	3.737	1.979	1.596	1.249	1.109	1.049	0.997	0.939	0.901	0.831	0.542	0.455	0.455
175	3.778	2.019	1.633	1.283	1.136	1.073	1.019	0.959	0.920	0.849	0.564	0.455	0.455
180	3.820	2.072	1.670	1.317	1.162	1.097	1.042	0.979	0.938	0.866	0.585	0.455	0.455
185	3.861	2.126	1.707	1.351	1.189	1.121	1.064	0.999	0.957	0.883	0.607	0.455	0.455
190	3.903	2.180	1.743	1.385	1.216	1.145	1.086	1.018	0.975	0.900	0.629	0.455	0.455
195	3.944	2.234	1.780	1.419	1.242	1.170	1.108	1.038	0.994	0.917	0.650	0.455	0.455
200	3.986	2.288	1.817	1.453	1.275	1.194	1.130	1.058	1.013	0.934	0.672	0.474	0.455

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table 20: I/H Sections - 4 Sided Beams
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	4.027	2.342	1.854	1.486	1.310	1.218	1.152	1.078	1.031	0.951	0.694	0.495	0.455
210	4.068	2.396	1.891	1.520	1.346	1.242	1.175	1.098	1.050	0.968	0.715	0.516	0.455
215	4.110	2.450	1.927	1.554	1.381	1.275	1.197	1.118	1.068	0.985	0.737	0.536	0.455
220	4.151	2.504	1.964	1.588	1.417	1.312	1.219	1.138	1.087	1.002	0.758	0.557	0.455
225	4.193	2.557	2.001	1.622	1.452	1.349	1.241	1.157	1.106	1.019	0.780	0.578	0.455
230	4.234	2.611	2.044	1.656	1.488	1.386	1.273	1.177	1.124	1.036	0.802	0.598	0.455
235	4.276	2.665	2.095	1.690	1.524	1.423	1.312	1.197	1.143	1.053	0.823	0.619	0.455
240	4.317	2.719	2.146	1.724	1.559	1.460	1.351	1.217	1.161	1.070	0.845	0.640	0.455
245	4.359	2.773	2.197	1.757	1.595	1.497	1.390	1.237	1.180	1.087	0.867	0.660	0.455
250	4.400	2.827	2.248	1.791	1.630	1.534	1.429	1.264	1.198	1.104	0.888	0.681	0.455
255	4.442	2.881	2.299	1.825	1.666	1.571	1.468	1.307	1.217	1.121	0.910	0.702	0.455
260	4.483	2.935	2.350	1.859	1.701	1.608	1.507	1.350	1.236	1.138	0.932	0.722	0.455
265	4.525	2.989	2.400	1.893	1.737	1.645	1.546	1.393	1.260	1.155	0.953	0.743	0.466
270	4.566	3.043	2.451	1.927	1.772	1.682	1.585	1.436	1.304	1.172	0.975	0.764	0.486
275	4.608	3.097	2.502	1.961	1.808	1.719	1.624	1.479	1.347	1.189	0.996	0.784	0.505
280	4.649	3.150	2.553	1.995	1.843	1.756	1.663	1.521	1.391	1.206	1.018	0.805	0.525
285	4.691	3.204	2.604	2.032	1.879	1.794	1.702	1.564	1.434	1.223	1.040	0.825	0.545
290	4.732	3.258	2.655	2.088	1.914	1.831	1.741	1.607	1.478	1.240	1.061	0.846	0.565
295	4.774	3.312	2.706	2.144	1.950	1.868	1.780	1.650	1.522	1.267	1.083	0.867	0.584
300	4.815	3.366	2.757	2.199	1.985	1.905	1.819	1.693	1.565	1.307	1.105	0.887	0.604
305	4.857	3.420	2.808	2.255	2.021	1.942	1.858	1.736	1.609	1.347	1.126	0.908	0.624
310	4.898	3.474	2.859	2.310	2.077	1.979	1.897	1.779	1.652	1.387	1.148	0.929	0.643
315	4.940	3.530	2.910	2.366	2.133	2.016	1.936	1.822	1.696	1.427	1.170	0.949	0.663
320	4.981	3.600	2.961	2.421	2.189	2.069	1.975	1.864	1.740	1.467	1.191	0.970	0.683
325	5.022	3.669	3.012	2.477	2.246	2.126	2.014	1.907	1.783	1.507	1.213	0.991	0.702
330	5.064	3.739	3.063	2.532	2.302	2.182	2.067	1.950	1.827	1.547	1.234	1.011	0.722
335	5.105	3.809	3.114	2.588	2.359	2.239	2.124	1.993	1.871	1.587	1.260	1.032	0.742
340	5.147	3.879	3.165	2.643	2.415	2.295	2.181	2.041	1.914	1.627	1.294	1.053	0.762
345	5.188	3.949	3.216	2.699	2.471	2.352	2.238	2.098	1.958	1.667	1.329	1.073	0.781
350	5.230	4.019	3.267	2.754	2.528	2.409	2.295	2.156	2.001	1.707	1.364	1.094	0.801
355	-	4.089	3.318	2.810	2.584	2.465	2.352	2.213	2.052	1.747	1.399	1.115	0.821
360	-	4.158	3.369	2.865	2.641	2.522	2.409	2.271	2.110	1.787	1.433	1.135	0.840
365	-	4.228	3.420	2.921	2.697	2.578	2.466	2.328	2.168	1.827	1.468	1.156	0.860
370	-	4.298	3.471	2.977	2.753	2.635	2.523	2.386	2.225	1.867	1.503	1.177	0.880
375	-	4.368	3.522	3.032	2.810	2.691	2.579	2.443	2.283	1.907	1.538	1.197	0.899
380	-	4.438	3.599	3.088	2.866	2.748	2.636	2.501	2.341	1.947	1.572	1.218	0.919

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
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Table 2I: I/H Sections - 4 Sided Beams
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	1.932	1.416	1.042	0.817	0.746	0.713	0.686	0.655	0.556	0.518	0.455	0.455	0.455
60	2.155	1.528	1.098	0.856	0.784	0.749	0.721	0.689	0.592	0.546	0.501	0.455	0.455
65	2.430	1.641	1.153	0.895	0.821	0.786	0.757	0.724	0.627	0.573	0.520	0.462	0.455
70	2.706	1.754	1.209	0.934	0.859	0.822	0.792	0.758	0.663	0.600	0.539	0.479	0.455
75	2.982	1.867	1.261	0.974	0.896	0.859	0.828	0.792	0.699	0.628	0.558	0.496	0.455
80	3.258	1.980	1.304	1.013	0.934	0.895	0.863	0.826	0.735	0.655	0.577	0.513	0.455
85	3.533	2.069	1.346	1.052	0.971	0.932	0.899	0.860	0.770	0.683	0.595	0.530	0.455
90	-	2.145	1.388	1.091	1.009	0.968	0.934	0.894	0.806	0.710	0.614	0.547	0.455
95	-	2.221	1.430	1.130	1.046	1.005	0.970	0.928	0.842	0.737	0.633	0.564	0.455
100	-	2.296	1.473	1.169	1.084	1.042	1.005	0.962	0.878	0.765	0.652	0.582	0.455
105	-	2.372	1.515	1.209	1.121	1.078	1.041	0.997	0.913	0.792	0.671	0.599	0.455
110	-	2.448	1.557	1.248	1.159	1.115	1.076	1.031	0.949	0.819	0.690	0.616	0.455
115	-	2.523	1.599	1.289	1.196	1.151	1.112	1.065	0.985	0.847	0.708	0.633	0.455
120	-	2.599	1.642	1.329	1.234	1.188	1.147	1.099	1.021	0.874	0.727	0.650	0.455
125	-	2.675	1.684	1.370	1.272	1.224	1.183	1.133	1.056	0.902	0.746	0.667	0.455
130	-	2.750	1.726	1.411	1.311	1.261	1.218	1.167	1.092	0.929	0.765	0.684	0.455
135	-	2.826	1.768	1.452	1.349	1.298	1.254	1.201	1.128	0.956	0.784	0.701	0.455
140	-	2.902	1.811	1.493	1.387	1.336	1.290	1.235	1.163	0.984	0.803	0.718	0.455
145	-	2.977	1.853	1.534	1.426	1.373	1.327	1.271	1.199	1.011	0.822	0.735	0.455
150	-	3.053	1.895	1.574	1.464	1.411	1.363	1.307	1.235	1.038	0.840	0.752	0.455
155	-	3.129	1.937	1.615	1.503	1.448	1.400	1.343	1.270	1.066	0.859	0.769	0.455
160	-	3.204	1.980	1.656	1.541	1.486	1.436	1.379	1.305	1.093	0.878	0.786	0.455
165	-	3.280	2.022	1.697	1.580	1.523	1.473	1.415	1.340	1.121	0.897	0.803	0.468
170	-	3.356	2.092	1.738	1.618	1.560	1.509	1.451	1.375	1.148	0.916	0.820	0.490
175	-	3.432	2.161	1.778	1.657	1.598	1.546	1.487	1.410	1.175	0.935	0.837	0.512
180	-	3.507	2.231	1.819	1.695	1.635	1.582	1.523	1.445	1.203	0.954	0.854	0.533
185	-	3.560	2.300	1.860	1.734	1.673	1.619	1.560	1.480	1.230	0.972	0.871	0.555
190	-	3.607	2.370	1.901	1.772	1.710	1.656	1.596	1.515	1.260	0.991	0.888	0.577
195	-	3.654	2.439	1.942	1.811	1.748	1.692	1.632	1.549	1.296	1.010	0.905	0.598
200	-	3.702	2.509	1.983	1.849	1.785	1.729	1.668	1.584	1.333	1.029	0.923	0.620

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table 2I: I/H Sections - 4 Sided Beams
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	3.749	2.579	2.024	1.888	1.822	1.765	1.704	1.619	1.369	1.048	0.940	0.641
210	-	3.797	2.648	2.083	1.926	1.860	1.802	1.740	1.654	1.405	1.067	0.957	0.663
215	-	3.844	2.718	2.142	1.965	1.897	1.838	1.776	1.689	1.442	1.085	0.974	0.685
220	-	3.891	2.787	2.201	2.003	1.935	1.875	1.812	1.724	1.478	1.104	0.991	0.706
225	-	3.939	2.857	2.260	2.053	1.972	1.911	1.848	1.759	1.514	1.123	1.008	0.728
230	-	3.986	2.927	2.319	2.113	2.010	1.948	1.885	1.794	1.551	1.142	1.025	0.750
235	-	4.033	2.996	2.378	2.174	2.063	1.984	1.921	1.829	1.587	1.161	1.042	0.771
240	-	4.081	3.066	2.437	2.234	2.124	2.021	1.957	1.864	1.623	1.180	1.059	0.793
245	-	4.128	3.135	2.496	2.295	2.186	2.082	1.993	1.899	1.660	1.199	1.076	0.815
250	-	4.175	3.205	2.555	2.355	2.247	2.144	2.034	1.934	1.696	1.217	1.093	0.836
255	-	4.223	3.274	2.614	2.416	2.308	2.206	2.096	1.969	1.732	1.236	1.110	0.858
260	-	4.270	3.344	2.673	2.477	2.369	2.268	2.158	2.003	1.769	1.262	1.127	0.879
265	-	4.317	3.414	2.732	2.537	2.430	2.330	2.221	2.052	1.805	1.308	1.144	0.901
270	-	4.365	3.483	2.792	2.598	2.492	2.392	2.283	2.116	1.841	1.353	1.161	0.923
275	-	4.412	3.554	2.851	2.658	2.553	2.454	2.345	2.180	1.878	1.398	1.178	0.944
280	-	4.460	3.626	2.910	2.719	2.614	2.515	2.407	2.244	1.914	1.443	1.195	0.966
285	-	4.507	3.698	2.969	2.779	2.675	2.577	2.470	2.308	1.950	1.488	1.212	0.988
290	-	4.554	3.770	3.028	2.840	2.737	2.639	2.532	2.372	1.987	1.534	1.229	1.009
295	-	4.602	3.842	3.087	2.900	2.798	2.701	2.594	2.436	2.024	1.579	1.246	1.031
300	-	4.649	3.914	3.146	2.961	2.859	2.763	2.656	2.500	2.088	1.624	1.281	1.053
305	-	4.696	3.986	3.205	3.021	2.920	2.825	2.719	2.564	2.153	1.669	1.321	1.074
310	-	4.744	4.058	3.264	3.082	2.981	2.887	2.781	2.628	2.218	1.714	1.360	1.096
315	-	4.791	4.131	3.323	3.142	3.043	2.949	2.843	2.692	2.283	1.760	1.400	1.118
320	-	4.838	4.203	3.382	3.203	3.104	3.011	2.905	2.756	2.348	1.805	1.439	1.139
325	-	4.886	4.275	3.441	3.263	3.165	3.073	2.967	2.821	2.412	1.850	1.479	1.161
330	-	4.933	4.347	3.500	3.324	3.226	3.135	3.030	2.885	2.477	1.895	1.518	1.182
335	-	4.980	4.419	3.586	3.384	3.288	3.197	3.092	2.949	2.542	1.940	1.558	1.204
340	-	5.028	4.491	3.686	3.445	3.349	3.259	3.154	3.013	2.607	1.986	1.597	1.226
345	-	5.075	4.563	3.787	3.505	3.410	3.321	3.216	3.077	2.672	2.035	1.637	1.247
350	-	5.123	4.635	3.888	3.598	3.471	3.383	3.279	3.141	2.736	2.104	1.676	1.281
355	-	5.170	4.707	3.988	3.703	3.541	3.445	3.341	3.205	2.801	2.173	1.716	1.315
360	-	5.217	4.779	4.089	3.807	3.648	3.507	3.403	3.269	2.866	2.241	1.755	1.350
365	-	5.265	4.851	4.190	3.911	3.755	3.605	3.465	3.333	2.931	2.310	1.795	1.385
370	-	-	4.923	4.290	4.016	3.862	3.715	3.533	3.397	2.996	2.379	1.834	1.420
375	-	-	4.995	4.391	4.120	3.969	3.824	3.644	3.461	3.060	2.448	1.874	1.455
380	-	-	5.068	4.492	4.224	4.076	3.934	3.756	3.528	3.125	2.516	1.913	1.490

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table 22: I/H Sections - 4 Sided Beams
Fire Resistance Period: 90 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	3.302	1.710	1.421	1.111	1.025	0.986	0.954	0.915	0.869	0.755	0.564	0.455	0.455
60	3.602	1.867	1.531	1.165	1.069	1.025	0.990	0.951	0.906	0.790	0.598	0.528	0.473
65	-	2.025	1.641	1.220	1.114	1.065	1.025	0.986	0.942	0.825	0.632	0.552	0.491
70	-	2.235	1.751	1.285	1.158	1.104	1.061	1.022	0.978	0.859	0.666	0.577	0.509
75	-	2.444	1.860	1.363	1.202	1.144	1.097	1.058	1.014	0.894	0.700	0.601	0.527
80	-	2.653	1.970	1.441	1.247	1.183	1.133	1.094	1.050	0.929	0.734	0.626	0.545
85	-	2.863	2.068	1.520	1.290	1.222	1.169	1.130	1.087	0.964	0.768	0.650	0.563
90	-	3.072	2.154	1.598	1.333	1.263	1.204	1.166	1.123	0.998	0.802	0.675	0.581
95	-	3.282	2.241	1.676	1.376	1.307	1.240	1.202	1.159	1.033	0.836	0.699	0.599
100	-	3.491	2.327	1.755	1.419	1.351	1.283	1.238	1.195	1.068	0.871	0.724	0.617
105	-	3.582	2.414	1.833	1.462	1.395	1.328	1.280	1.231	1.102	0.905	0.748	0.635
110	-	3.654	2.501	1.911	1.505	1.439	1.373	1.324	1.271	1.137	0.939	0.773	0.653
115	-	3.725	2.587	1.990	1.548	1.483	1.418	1.368	1.313	1.172	0.973	0.797	0.671
120	-	3.796	2.674	2.062	1.591	1.527	1.463	1.412	1.355	1.206	1.007	0.822	0.689
125	-	3.868	2.760	2.131	1.635	1.570	1.508	1.457	1.398	1.241	1.041	0.846	0.707
130	-	3.939	2.847	2.199	1.678	1.614	1.553	1.501	1.440	1.279	1.075	0.871	0.725
135	-	4.011	2.934	2.268	1.721	1.658	1.598	1.545	1.483	1.317	1.109	0.895	0.743
140	-	4.082	3.020	2.336	1.764	1.702	1.643	1.589	1.525	1.355	1.143	0.920	0.762
145	-	4.153	3.107	2.404	1.807	1.746	1.688	1.633	1.567	1.394	1.177	0.944	0.780
150	-	4.225	3.193	2.473	1.850	1.790	1.733	1.678	1.610	1.432	1.212	0.968	0.798
155	-	4.296	3.280	2.541	1.893	1.834	1.778	1.722	1.652	1.471	1.246	0.993	0.816
160	-	4.368	3.367	2.610	1.936	1.878	1.823	1.766	1.694	1.509	1.281	1.017	0.834
165	-	4.439	3.453	2.678	1.979	1.922	1.868	1.810	1.737	1.548	1.316	1.042	0.852
170	-	4.511	3.533	2.747	2.022	1.965	1.913	1.854	1.779	1.586	1.351	1.066	0.870
175	-	4.582	3.590	2.815	2.110	2.009	1.958	1.899	1.822	1.625	1.386	1.091	0.888
180	-	4.653	3.646	2.884	2.198	2.081	2.003	1.943	1.864	1.663	1.422	1.115	0.906
185	-	4.725	3.702	2.952	2.286	2.164	2.067	1.987	1.906	1.701	1.457	1.140	0.924
190	-	4.796	3.759	3.020	2.374	2.247	2.146	2.038	1.949	1.740	1.492	1.164	0.942
195	-	4.868	3.815	3.089	2.462	2.331	2.226	2.113	1.991	1.778	1.527	1.189	0.960
200	-	4.939	3.872	3.157	2.550	2.414	2.305	2.188	2.041	1.817	1.562	1.213	0.978

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902 Loading Tables

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**Table 22: I/H Sections - 4 Sided Beams
Fire Resistance Period: 90 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	5.010	3.928	3.226	2.638	2.497	2.385	2.263	2.112	1.855	1.598	1.238	0.996
210	-	5.082	3.984	3.294	2.726	2.580	2.464	2.338	2.183	1.894	1.633	1.269	1.014
215	-	5.153	4.041	3.363	2.814	2.663	2.544	2.412	2.254	1.932	1.668	1.307	1.032
220	-	5.225	4.097	3.431	2.902	2.746	2.623	2.487	2.324	1.970	1.703	1.344	1.050
225	-	5.296	4.153	3.499	2.990	2.829	2.702	2.562	2.395	2.009	1.738	1.382	1.068
230	-	-	4.210	3.567	3.078	2.913	2.782	2.637	2.466	2.067	1.774	1.420	1.086
235	-	-	4.266	3.634	3.166	2.996	2.861	2.712	2.537	2.134	1.809	1.458	1.104
240	-	-	4.323	3.701	3.254	3.079	2.941	2.787	2.607	2.202	1.844	1.496	1.122
245	-	-	4.379	3.767	3.342	3.162	3.020	2.862	2.678	2.270	1.879	1.534	1.140
250	-	-	4.435	3.834	3.430	3.245	3.099	2.937	2.749	2.338	1.914	1.572	1.158
255	-	-	4.492	3.901	3.518	3.328	3.179	3.012	2.819	2.405	1.950	1.610	1.177
260	-	-	4.548	3.968	3.599	3.411	3.258	3.087	2.890	2.473	1.985	1.648	1.195
265	-	-	4.605	4.035	3.681	3.495	3.338	3.162	2.961	2.541	2.020	1.685	1.213
270	-	-	4.661	4.102	3.762	3.581	3.417	3.237	3.032	2.609	2.090	1.723	1.231
275	-	-	4.717	4.169	3.843	3.669	3.496	3.312	3.102	2.676	2.161	1.761	1.249
280	-	-	4.774	4.235	3.925	3.757	3.586	3.387	3.173	2.744	2.233	1.799	1.291
285	-	-	4.830	4.302	4.006	3.845	3.681	3.462	3.244	2.812	2.305	1.837	1.334
290	-	-	4.887	4.369	4.088	3.933	3.775	3.542	3.315	2.880	2.376	1.875	1.378
295	-	-	4.943	4.436	4.169	4.021	3.870	3.646	3.385	2.947	2.448	1.913	1.422
300	-	-	4.999	4.503	4.250	4.109	3.964	3.750	3.456	3.015	2.519	1.951	1.466
305	-	-	5.056	4.570	4.332	4.197	4.059	3.854	3.531	3.083	2.591	1.988	1.509
310	-	-	5.112	4.637	4.413	4.285	4.153	3.958	3.651	3.151	2.663	2.031	1.553
315	-	-	5.169	4.703	4.495	4.372	4.247	4.061	3.771	3.218	2.734	2.105	1.597
320	-	-	5.225	4.770	4.576	4.460	4.342	4.165	3.891	3.286	2.806	2.179	1.641
325	-	-	5.281	4.837	4.657	4.548	4.436	4.269	4.011	3.354	2.877	2.253	1.685
330	-	-	5.338	4.904	4.739	4.636	4.531	4.373	4.131	3.422	2.949	2.327	1.728
335	-	-	-	4.971	4.820	4.724	4.625	4.477	4.252	3.489	3.021	2.402	1.772
340	-	-	-	5.038	4.901	4.812	4.720	4.580	4.372	3.601	3.092	2.476	1.816
345	-	-	-	5.105	4.983	4.900	4.814	4.684	4.492	3.752	3.164	2.550	1.860
350	-	-	-	5.172	5.064	4.988	4.909	4.788	4.612	3.902	3.235	2.624	1.903
355	-	-	-	5.238	5.146	5.076	5.003	4.892	4.732	4.053	3.307	2.698	1.947
360	-	-	-	5.305	5.227	5.164	5.097	4.995	4.852	4.203	3.378	2.773	1.991
365	-	-	-	5.372	5.308	5.252	5.192	5.099	4.972	4.354	3.450	2.847	2.044
370	-	-	-	-	-	5.340	5.286	5.203	5.092	4.504	3.523	2.921	2.118
375	-	-	-	-	-	-	5.381	5.307	5.212	4.655	3.690	2.995	2.193
380	-	-	-	-	-	-	-	-	5.333	4.805	3.857	3.069	2.267

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 23: I/H Sections - 4 Sided Beams
Fire Resistance Period: IO5 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	-	2.156	1.646	1.454	1.326	1.253	1.213	1.168	1.117	0.989	0.841	0.683	0.522
60	-	2.706	1.796	1.561	1.434	1.362	1.293	1.223	1.166	1.024	0.876	0.717	0.551
65	-	3.256	1.947	1.669	1.542	1.471	1.403	1.307	1.215	1.058	0.910	0.750	0.579
70	-	-	2.132	1.777	1.650	1.580	1.513	1.420	1.269	1.092	0.944	0.784	0.607
75	-	-	2.351	1.885	1.758	1.689	1.623	1.533	1.338	1.126	0.979	0.817	0.635
80	-	-	2.570	1.993	1.866	1.798	1.733	1.647	1.407	1.161	1.013	0.851	0.663
85	-	-	2.789	2.099	1.974	1.907	1.843	1.760	1.475	1.195	1.047	0.884	0.691
90	-	-	3.008	2.204	2.070	2.016	1.953	1.873	1.544	1.229	1.081	0.918	0.719
95	-	-	3.226	2.309	2.156	2.099	2.051	1.987	1.613	1.267	1.116	0.951	0.747
100	-	-	3.445	2.414	2.242	2.179	2.127	2.071	1.681	1.312	1.150	0.985	0.775
105	-	-	3.584	2.519	2.328	2.260	2.203	2.142	1.750	1.356	1.184	1.018	0.804
110	-	-	3.680	2.624	2.414	2.341	2.280	2.213	1.819	1.401	1.219	1.052	0.832
115	-	-	3.776	2.729	2.500	2.422	2.356	2.285	1.887	1.446	1.253	1.085	0.860
120	-	-	3.873	2.834	2.587	2.503	2.432	2.356	1.956	1.490	1.294	1.119	0.888
125	-	-	3.969	2.940	2.673	2.584	2.509	2.427	2.025	1.535	1.335	1.152	0.916
130	-	-	4.065	3.045	2.759	2.665	2.585	2.498	2.108	1.579	1.376	1.186	0.944
135	-	-	4.161	3.150	2.845	2.745	2.661	2.569	2.191	1.624	1.417	1.220	0.972
140	-	-	4.258	3.255	2.931	2.826	2.738	2.641	2.273	1.668	1.458	1.253	1.000
145	-	-	4.354	3.360	3.017	2.907	2.814	2.712	2.356	1.713	1.498	1.290	1.029
150	-	-	4.450	3.465	3.104	2.988	2.890	2.783	2.439	1.758	1.539	1.326	1.057
155	-	-	4.546	3.554	3.190	3.069	2.967	2.854	2.521	1.802	1.580	1.362	1.085
160	-	-	4.643	3.623	3.276	3.150	3.043	2.925	2.604	1.847	1.621	1.399	1.113
165	-	-	4.739	3.693	3.362	3.230	3.120	2.997	2.687	1.891	1.662	1.435	1.141
170	-	-	4.835	3.763	3.448	3.311	3.196	3.068	2.769	1.936	1.703	1.471	1.169
175	-	-	4.931	3.833	3.533	3.392	3.272	3.139	2.852	1.981	1.743	1.507	1.197
180	-	-	5.028	3.903	3.608	3.473	3.349	3.210	2.935	2.029	1.784	1.544	1.225
185	-	-	5.124	3.973	3.683	3.552	3.425	3.281	3.017	2.123	1.825	1.580	1.254
190	-	-	5.220	4.042	3.758	3.628	3.501	3.353	3.100	2.218	1.866	1.616	1.290
195	-	-	5.316	4.112	3.833	3.705	3.579	3.424	3.183	2.312	1.907	1.653	1.326
200	-	-	-	4.182	3.908	3.781	3.657	3.495	3.265	2.406	1.948	1.689	1.361

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 23: I/H Sections - 4 Sided Beams
Fire Resistance Period: IO5 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	-	-	4.252	3.983	3.858	3.735	3.572	3.348	2.501	1.988	1.725	1.397
210	-	-	-	4.322	4.058	3.934	3.812	3.652	3.431	2.595	2.036	1.762	1.433
215	-	-	-	4.392	4.133	4.010	3.890	3.732	3.513	2.690	2.114	1.798	1.468
220	-	-	-	4.461	4.208	4.087	3.968	3.812	3.597	2.784	2.192	1.834	1.504
225	-	-	-	4.531	4.283	4.163	4.046	3.891	3.681	2.879	2.270	1.871	1.539
230	-	-	-	4.601	4.358	4.240	4.124	3.971	3.765	2.973	2.348	1.907	1.575
235	-	-	-	4.671	4.433	4.316	4.202	4.051	3.849	3.068	2.427	1.943	1.611
240	-	-	-	4.741	4.508	4.392	4.280	4.131	3.933	3.162	2.505	1.980	1.646
245	-	-	-	4.811	4.583	4.469	4.358	4.211	4.017	3.257	2.583	2.016	1.682
250	-	-	-	4.880	4.658	4.545	4.436	4.291	4.100	3.351	2.661	2.085	1.718
255	-	-	-	4.950	4.733	4.622	4.513	4.371	4.184	3.446	2.739	2.161	1.753
260	-	-	-	5.020	4.808	4.698	4.591	4.451	4.268	3.542	2.817	2.237	1.789
265	-	-	-	5.090	4.883	4.775	4.669	4.531	4.352	3.648	2.895	2.313	1.825
270	-	-	-	5.160	4.958	4.851	4.747	4.611	4.436	3.754	2.974	2.389	1.860
275	-	-	-	5.230	5.033	4.927	4.825	4.691	4.520	3.859	3.052	2.465	1.896
280	-	-	-	5.299	5.108	5.004	4.903	4.771	4.604	3.965	3.130	2.541	1.931
285	-	-	-	-	5.183	5.080	4.981	4.851	4.688	4.071	3.208	2.617	1.967
290	-	-	-	-	5.258	5.157	5.059	4.931	4.772	4.176	3.286	2.693	2.003
295	-	-	-	-	5.333	5.233	5.137	5.011	4.856	4.282	3.364	2.769	2.059
300	-	-	-	-	-	5.309	5.214	5.091	4.939	4.387	3.442	2.845	2.140
305	-	-	-	-	-	5.386	5.292	5.171	5.023	4.493	3.521	2.920	2.220
310	-	-	-	-	-	-	5.370	5.251	5.107	4.599	3.683	2.996	2.301
315	-	-	-	-	-	-	-	5.331	5.191	4.704	3.847	3.072	2.381
320	-	-	-	-	-	-	-	-	5.275	4.810	4.010	3.148	2.462
325	-	-	-	-	-	-	-	-	5.359	4.916	4.174	3.224	2.542
330	-	-	-	-	-	-	-	-	-	5.021	4.337	3.300	2.623
335	-	-	-	-	-	-	-	-	-	5.127	4.500	3.376	2.703
340	-	-	-	-	-	-	-	-	-	5.233	4.664	3.452	2.784
345	-	-	-	-	-	-	-	-	-	5.338	4.827	3.541	2.864
350	-	-	-	-	-	-	-	-	-	-	4.990	3.756	2.945
355	-	-	-	-	-	-	-	-	-	-	5.154	3.970	3.026
360	-	-	-	-	-	-	-	-	-	-	-	4.185	3.106
365	-	-	-	-	-	-	-	-	-	-	-	4.400	3.187
370	-	-	-	-	-	-	-	-	-	-	-	4.614	3.267
375	-	-	-	-	-	-	-	-	-	-	-	4.829	3.348
380	-	-	-	-	-	-	-	-	-	-	-	5.044	3.428

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
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Table 24: I/H Sections - 4 Sided Beams
Fire Resistance Period: 120 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	-	-	1.945	1.622	1.518	1.483	1.483	1.483	1.416	1.216	1.057	0.885	0.718
60	-	-	2.327	1.771	1.657	1.604	1.589	1.589	1.520	1.291	1.095	0.919	0.752
65	-	-	2.864	1.920	1.796	1.738	1.694	1.694	1.625	1.400	1.132	0.954	0.785
70	-	-	3.401	2.095	1.934	1.872	1.819	1.799	1.729	1.508	1.170	0.988	0.819
75	-	-	-	2.327	2.087	2.006	1.949	1.905	1.833	1.617	1.207	1.023	0.852
80	-	-	-	2.559	2.264	2.160	2.082	2.010	1.937	1.725	1.245	1.057	0.886
85	-	-	-	2.791	2.442	2.316	2.221	2.130	2.041	1.834	1.286	1.092	0.920
90	-	-	-	3.023	2.619	2.471	2.360	2.251	2.145	1.942	1.329	1.126	0.953
95	-	-	-	3.255	2.796	2.627	2.500	2.372	2.248	2.043	1.371	1.161	0.987
100	-	-	-	3.487	2.973	2.783	2.639	2.494	2.352	2.123	1.413	1.195	1.021
105	-	-	-	3.719	3.150	2.939	2.778	2.615	2.455	2.202	1.456	1.230	1.054
110	-	-	-	-	3.327	3.095	2.917	2.737	2.559	2.282	1.498	1.267	1.088
115	-	-	-	-	3.504	3.251	3.056	2.858	2.662	2.361	1.540	1.309	1.122
120	-	-	-	-	3.625	3.406	3.195	2.979	2.766	2.441	1.583	1.351	1.155
125	-	-	-	-	3.739	3.551	3.334	3.101	2.869	2.521	1.625	1.393	1.189
130	-	-	-	-	3.854	3.664	3.473	3.222	2.973	2.600	1.668	1.435	1.223
135	-	-	-	-	3.968	3.777	3.593	3.343	3.076	2.680	1.710	1.477	1.258
140	-	-	-	-	4.083	3.890	3.702	3.465	3.180	2.759	1.752	1.519	1.300
145	-	-	-	-	4.198	4.003	3.812	3.579	3.283	2.839	1.795	1.561	1.342
150	-	-	-	-	4.312	4.116	3.921	3.686	3.387	2.918	1.837	1.603	1.384
155	-	-	-	-	4.427	4.228	4.031	3.794	3.490	2.998	1.879	1.645	1.426
160	-	-	-	-	4.541	4.341	4.141	3.902	3.597	3.078	1.922	1.687	1.467
165	-	-	-	-	4.656	4.454	4.250	4.009	3.706	3.157	1.964	1.729	1.509
170	-	-	-	-	4.771	4.567	4.360	4.117	3.814	3.237	2.006	1.770	1.551
175	-	-	-	-	4.885	4.680	4.469	4.225	3.923	3.316	2.103	1.812	1.593
180	-	-	-	-	5.000	4.793	4.579	4.332	4.032	3.396	2.230	1.854	1.635
185	-	-	-	-	5.114	4.906	4.688	4.440	4.140	3.476	2.358	1.896	1.677
190	-	-	-	-	5.229	5.019	4.798	4.548	4.249	3.563	2.485	1.938	1.719
195	-	-	-	-	5.344	5.132	4.908	4.655	4.357	3.660	2.613	1.980	1.761
200	-	-	-	-	-	5.245	5.017	4.763	4.466	3.757	2.740	2.022	1.803

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 24: I/H Sections - 4 Sided Beams
Fire Resistance Period: 120 Minutes
Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	520°C	530°C	539°C	550°C	563°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
205	-	-	-	-	-	5.358	5.127	4.871	4.575	3.854	2.868	2.116	1.845
210	-	-	-	-	-	-	5.236	4.978	4.683	3.952	2.996	2.209	1.887
215	-	-	-	-	-	-	5.346	5.086	4.792	4.049	3.123	2.302	1.929
220	-	-	-	-	-	-	-	5.194	4.900	4.146	3.251	2.395	1.971
225	-	-	-	-	-	-	-	5.301	5.009	4.243	3.378	2.489	2.012
230	-	-	-	-	-	-	-	-	5.118	4.341	3.506	2.582	2.078
235	-	-	-	-	-	-	-	-	5.226	4.438	3.625	2.675	2.150
240	-	-	-	-	-	-	-	-	5.335	4.535	3.743	2.768	2.222
245	-	-	-	-	-	-	-	-	-	4.632	3.861	2.862	2.294
250	-	-	-	-	-	-	-	-	-	4.730	3.979	2.955	2.366
255	-	-	-	-	-	-	-	-	-	4.827	4.097	3.048	2.439
260	-	-	-	-	-	-	-	-	-	4.924	4.215	3.141	2.511
265	-	-	-	-	-	-	-	-	-	5.021	4.333	3.235	2.583
270	-	-	-	-	-	-	-	-	-	5.119	4.452	3.328	2.655
275	-	-	-	-	-	-	-	-	-	5.216	4.570	3.421	2.727
280	-	-	-	-	-	-	-	-	-	5.313	4.688	3.514	2.799
285	-	-	-	-	-	-	-	-	-	-	4.806	3.668	2.871
290	-	-	-	-	-	-	-	-	-	-	4.924	3.826	2.944
295	-	-	-	-	-	-	-	-	-	-	5.042	3.984	3.016
300	-	-	-	-	-	-	-	-	-	-	5.160	4.142	3.088
305	-	-	-	-	-	-	-	-	-	-	5.278	4.300	3.160
310	-	-	-	-	-	-	-	-	-	-	-	4.458	3.232
315	-	-	-	-	-	-	-	-	-	-	-	4.616	3.304
320	-	-	-	-	-	-	-	-	-	-	-	4.774	3.376
325	-	-	-	-	-	-	-	-	-	-	-	4.932	3.449
330	-	-	-	-	-	-	-	-	-	-	-	5.090	3.521
335	-	-	-	-	-	-	-	-	-	-	-	5.248	3.774
340	-	-	-	-	-	-	-	-	-	-	-	-	4.028
345	-	-	-	-	-	-	-	-	-	-	-	-	4.282
350	-	-	-	-	-	-	-	-	-	-	-	-	4.536
355	-	-	-	-	-	-	-	-	-	-	-	-	4.790
360	-	-	-	-	-	-	-	-	-	-	-	-	5.043
365	-	-	-	-	-	-	-	-	-	-	-	-	-
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 25: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 15 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
55	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
60	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
65	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
70	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
75	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
80	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
85	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
90	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
95	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
100	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
105	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
110	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
115	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
120	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
125	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
130	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
135	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
140	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
145	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
150	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
155	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
160	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
165	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
170	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
175	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
180	0.886	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
185	0.948	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
190	1.009	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
195	1.070	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
200	1.132	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
205	1.193	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
210	1.254	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
215	1.316	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
220	1.377	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
225	1.439	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 25: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 15 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
230	1.500	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
235	1.561	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
240	1.623	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
245	1.684	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
250	1.745	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
255	1.807	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
260	1.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
265	1.929	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
270	1.991	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
275	2.052	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
280	2.113	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
285	2.175	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
290	2.236	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
295	2.298	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
300	2.359	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
305	2.420	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
310	2.482	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
315	2.543	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
320	2.604	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
325	2.666	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
330	2.727	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
335	2.788	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
340	2.850	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
345	2.911	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
350	2.973	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
355	3.034	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
360	3.055	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
365	3.069	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
370	3.082	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
375	3.095	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
380	3.109	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
385	3.122	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
390	3.136	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
395	3.149	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
400	3.162	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
405	3.176	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 26: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 30 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
55	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
60	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
65	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
70	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
75	0.934	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
80	1.049	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
85	1.163	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
90	1.278	0.889	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
95	1.393	0.939	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
100	1.507	0.988	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
105	1.622	1.037	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
110	1.737	1.086	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
115	1.851	1.136	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
120	1.966	1.185	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
125	2.081	1.234	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
130	2.193	1.283	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
135	2.295	1.332	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
140	2.397	1.382	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
145	2.499	1.431	0.902	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
150	2.601	1.480	0.987	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
155	2.703	1.529	1.073	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
160	2.805	1.579	1.158	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
165	2.907	1.628	1.243	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
170	3.009	1.677	1.329	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
175	3.062	1.726	1.414	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
180	3.090	1.776	1.499	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
185	3.118	1.825	1.585	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
190	3.145	1.874	1.670	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
195	3.173	1.923	1.755	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
200	3.201	1.972	1.841	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
205	3.229	2.022	1.926	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
210	3.257	2.071	2.011	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
215	3.284	2.120	2.096	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
220	3.312	2.182	2.182	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
225	3.340	2.947	2.267	0.915	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 26: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 30 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
230	3.368	3.065	2.352	1.023	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
235	3.395	3.089	2.438	1.132	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
240	3.423	3.114	2.523	1.240	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
245	3.451	3.138	2.608	1.348	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
250	3.479	3.162	2.694	1.457	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
255	3.506	3.186	2.779	1.565	0.941	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
260	3.534	3.210	2.864	1.673	1.069	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
265	3.562	3.234	2.950	1.782	1.198	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
270	3.590	3.258	3.035	1.890	1.326	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
275	3.618	3.282	3.066	1.998	1.455	0.923	0.868	0.868	0.868	0.868	0.868	0.868	0.868
280	3.645	3.307	3.090	2.107	1.583	1.070	0.992	0.868	0.868	0.868	0.868	0.868	0.868
285	3.673	3.331	3.114	2.215	1.712	1.217	1.141	0.868	0.868	0.868	0.868	0.868	0.868
290	3.701	3.355	3.138	2.323	1.840	1.363	1.291	0.868	0.868	0.868	0.868	0.868	0.868
295	3.729	3.379	3.162	2.432	1.969	1.510	1.440	0.868	0.868	0.868	0.868	0.868	0.868
300	3.756	3.403	3.186	2.540	2.098	1.657	1.590	0.868	0.868	0.868	0.868	0.868	0.868
305	3.784	3.427	3.211	2.648	2.226	1.804	1.739	0.868	0.868	0.868	0.868	0.868	0.868
310	3.812	3.451	3.235	2.757	2.355	1.950	1.889	0.868	0.868	0.868	0.868	0.868	0.868
315	3.840	3.476	3.259	2.865	2.483	2.097	2.038	0.868	0.868	0.868	0.868	0.868	0.868
320	3.867	3.500	3.283	2.973	2.612	2.244	2.187	0.868	0.868	0.868	0.868	0.868	0.868
325	3.895	3.524	3.307	3.053	2.740	2.391	2.337	0.868	0.868	0.868	0.868	0.868	0.868
330	3.923	3.548	3.331	3.078	2.869	2.537	2.486	0.868	0.868	0.868	0.868	0.868	0.868
335	3.951	3.572	3.356	3.103	2.998	2.684	2.636	1.063	0.921	0.868	0.868	0.868	0.868
340	3.979	3.596	3.380	3.129	3.060	2.831	2.785	1.275	1.130	0.868	0.868	0.868	0.868
345	4.020	3.620	3.404	3.154	3.086	2.978	2.934	1.488	1.339	0.868	0.868	0.868	0.868
350	4.163	3.644	3.428	3.179	3.111	3.058	3.051	1.700	1.547	0.868	0.868	0.868	0.868
355	4.306	3.669	3.452	3.204	3.136	3.084	3.077	1.912	1.756	0.868	0.868	0.868	0.868
360	4.449	3.693	3.476	3.230	3.162	3.109	3.102	2.124	1.965	0.868	0.868	0.868	0.868
365	4.592	3.717	3.501	3.255	3.187	3.135	3.128	2.336	2.173	0.868	0.868	0.868	0.868
370	4.735	3.741	3.525	3.280	3.213	3.161	3.154	2.548	2.382	0.868	0.868	0.868	0.868
375	4.879	3.765	3.549	3.306	3.238	3.187	3.180	2.760	2.591	0.868	0.868	0.868	0.868
380	5.022	3.789	3.573	3.331	3.263	3.212	3.205	2.972	2.799	0.868	0.868	0.868	0.868
385	5.155	3.813	3.597	3.356	3.289	3.238	3.231	3.061	3.008	0.868	0.868	0.868	0.868
390	5.279	3.838	3.621	3.381	3.314	3.264	3.257	3.087	3.066	0.868	0.868	0.868	0.868
395	5.403	3.862	3.646	3.407	3.340	3.290	3.283	3.114	3.092	0.868	0.868	0.868	0.868
400	5.527	3.886	3.670	3.432	3.365	3.315	3.308	3.140	3.118	0.936	0.868	0.868	0.868
405	5.651	3.910	3.694	3.457	3.390	3.341	3.334	3.166	3.144	1.099	0.868	0.868	0.868

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 27: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 45 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	1.194	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
55	1.466	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
60	1.758	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
65	2.050	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
70	2.221	1.101	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
75	2.305	1.385	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
80	2.390	1.668	0.881	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
85	2.474	1.952	1.056	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
90	2.558	2.188	1.231	0.885	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
95	2.642	2.262	1.405	0.954	0.918	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
100	2.727	2.336	1.580	1.023	0.975	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
105	2.811	2.410	1.755	1.092	1.031	0.954	0.945	0.868	0.868	0.868	0.868	0.868	0.868
110	2.895	2.484	1.929	1.161	1.088	1.044	1.034	0.868	0.868	0.868	0.868	0.868	0.868
115	2.980	2.558	2.104	1.230	1.145	1.133	1.123	0.868	0.868	0.868	0.868	0.868	0.868
120	3.058	2.632	2.217	1.299	1.222	1.222	1.212	0.938	0.905	0.868	0.868	0.868	0.868
125	3.119	2.706	2.291	1.368	1.311	1.311	1.301	1.024	0.991	0.868	0.868	0.868	0.868
130	3.179	2.780	2.365	1.437	1.401	1.401	1.390	1.111	1.077	0.868	0.868	0.868	0.868
135	3.240	2.854	2.439	1.506	1.490	1.490	1.479	1.197	1.163	0.868	0.868	0.868	0.868
140	3.300	2.927	2.512	1.579	1.579	1.579	1.568	1.284	1.249	0.868	0.868	0.868	0.868
145	3.361	3.001	2.586	1.668	1.668	1.668	1.657	1.370	1.336	0.868	0.868	0.868	0.868
150	3.421	3.063	2.660	1.758	1.758	1.758	1.746	1.457	1.422	0.868	0.868	0.868	0.868
155	3.482	3.107	2.734	1.847	1.847	1.847	1.835	1.543	1.508	0.868	0.868	0.868	0.868
160	3.542	3.151	2.808	1.936	1.936	1.936	1.924	1.630	1.594	0.878	0.868	0.868	0.868
165	3.602	3.196	2.882	2.025	2.025	2.025	2.013	1.716	1.680	0.964	0.868	0.868	0.868
170	3.663	3.240	2.956	2.115	2.115	2.115	2.102	1.803	1.767	1.050	0.868	0.868	0.868
175	3.723	3.284	3.029	2.204	2.204	2.204	2.191	1.889	1.853	1.135	0.868	0.868	0.868
180	3.784	3.328	3.078	2.293	2.293	2.293	2.280	1.976	1.939	1.221	0.868	0.868	0.868
185	3.844	3.373	3.121	2.382	2.382	2.382	2.369	2.062	2.025	1.307	0.868	0.868	0.868
190	3.905	3.417	3.164	2.472	2.472	2.472	2.458	2.149	2.111	1.392	0.868	0.868	0.868
195	3.965	3.461	3.207	2.587	2.561	2.561	2.547	2.235	2.198	1.478	0.868	0.868	0.868
200	4.060	3.505	3.250	2.764	2.650	2.650	2.636	2.322	2.284	1.564	0.868	0.868	0.868
205	4.213	3.550	3.293	2.940	2.739	2.739	2.725	2.408	2.370	1.649	0.868	0.868	0.868
210	4.366	3.594	3.336	3.062	2.829	2.829	2.814	2.495	2.456	1.735	0.868	0.868	0.868
215	4.519	3.638	3.379	3.105	2.968	2.918	2.903	2.581	2.542	1.821	0.868	0.868	0.868
220	4.672	3.682	3.422	3.148	3.079	3.007	2.992	2.668	2.629	1.906	0.868	0.868	0.868
225	4.825	3.727	3.465	3.192	3.122	3.069	3.062	2.754	2.715	1.992	0.868	0.868	0.868

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 27: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 45 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
230	4.977	3.771	3.508	3.235	3.165	3.113	3.105	2.841	2.801	2.078	0.868	0.868	0.868
235	5.110	3.815	3.551	3.278	3.208	3.156	3.149	2.927	2.887	2.163	0.868	0.868	0.868
240	5.189	3.859	3.594	3.322	3.251	3.199	3.192	3.014	2.973	2.249	0.961	0.868	0.868
245	5.267	3.904	3.637	3.365	3.294	3.242	3.235	3.072	3.052	2.335	1.066	0.868	0.868
250	5.346	3.948	3.680	3.408	3.337	3.285	3.278	3.114	3.094	2.420	1.171	0.868	0.868
255	5.425	3.992	3.723	3.451	3.380	3.329	3.322	3.157	3.137	2.506	1.275	0.868	0.868
260	5.503	4.096	3.766	3.495	3.423	3.372	3.365	3.200	3.179	2.592	1.380	0.868	0.868
265	5.582	4.220	3.809	3.538	3.466	3.415	3.408	3.242	3.222	2.677	1.485	0.868	0.868
270	5.661	4.343	3.852	3.581	3.509	3.458	3.452	3.285	3.264	2.763	1.590	0.868	0.868
275	5.739	4.466	3.895	3.625	3.552	3.502	3.495	3.327	3.307	2.849	1.695	0.868	0.868
280	5.818	4.590	3.938	3.668	3.595	3.545	3.538	3.370	3.349	2.934	1.800	0.868	0.868
285	5.897	4.713	3.980	3.711	3.638	3.588	3.581	3.413	3.392	3.020	1.905	0.868	0.868
290	5.975	4.836	4.051	3.755	3.681	3.631	3.625	3.455	3.434	3.075	2.010	0.868	0.868
295	6.054	4.959	4.153	3.798	3.724	3.674	3.668	3.498	3.477	3.118	2.115	0.868	0.868
300	6.132	5.083	4.255	3.841	3.767	3.718	3.711	3.541	3.519	3.161	2.220	0.868	0.868
305	6.211	5.162	4.357	3.884	3.810	3.761	3.754	3.583	3.562	3.204	2.325	0.868	0.868
310	6.290	5.238	4.459	3.928	3.853	3.804	3.798	3.626	3.604	3.247	2.430	0.868	0.868
315	-	5.315	4.561	3.971	3.896	3.847	3.841	3.668	3.647	3.290	2.534	0.868	0.868
320	-	5.391	4.663	4.032	3.939	3.891	3.884	3.711	3.689	3.333	2.639	0.868	0.868
325	-	5.468	4.764	4.141	3.982	3.934	3.927	3.754	3.732	3.376	2.744	0.868	0.868
330	-	5.545	4.866	4.251	4.061	3.977	3.971	3.796	3.774	3.419	2.849	0.868	0.868
335	-	5.621	4.968	4.361	4.174	4.049	4.032	3.839	3.817	3.462	2.954	0.868	0.868
340	-	5.698	5.070	4.471	4.287	4.164	4.147	3.882	3.860	3.505	3.050	0.868	0.868
345	-	5.774	5.166	4.580	4.401	4.278	4.262	3.924	3.902	3.548	3.094	0.868	0.868
350	-	5.851	5.260	4.690	4.514	4.393	4.377	3.967	3.945	3.591	3.138	0.973	0.868
355	-	5.928	5.354	4.800	4.628	4.508	4.492	4.022	3.987	3.635	3.182	1.135	0.868
360	-	6.004	5.448	4.910	4.741	4.623	4.607	4.146	4.082	3.678	3.226	1.296	0.868
365	-	6.081	5.542	5.019	4.854	4.737	4.722	4.270	4.207	3.721	3.270	1.458	0.868
370	-	6.157	5.636	5.123	4.968	4.852	4.837	4.394	4.333	3.764	3.314	1.620	0.868
375	-	6.234	5.730	5.218	5.081	4.967	4.952	4.518	4.458	3.807	3.358	1.782	0.868
380	-	6.311	5.824	5.312	5.177	5.081	5.067	4.642	4.584	3.850	3.402	1.943	0.868
385	-	6.387	5.919	5.407	5.272	5.178	5.166	4.765	4.709	3.893	3.445	2.105	0.868
390	-	-	6.013	5.501	5.366	5.273	5.261	4.889	4.835	3.936	3.489	2.267	0.868
395	-	-	6.107	5.595	5.461	5.367	5.356	5.013	4.960	3.979	3.533	2.429	0.868
400	-	-	6.201	5.690	5.555	5.462	5.451	5.126	5.086	4.060	3.577	2.590	0.868
405	-	-	6.295	5.784	5.650	5.557	5.546	5.220	5.181	4.190	3.621	2.752	0.868

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

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SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 28: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 60 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	1.667	1.330	1.039	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
55	2.012	1.642	1.304	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
60	2.252	1.985	1.615	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
65	2.401	2.213	1.925	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
70	2.550	2.304	2.187	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
75	2.699	2.394	2.259	1.140	0.942	0.868	0.868	0.868	0.868	0.868	0.868	0.868	0.868
80	2.848	2.485	2.331	1.526	1.264	1.129	1.114	0.868	0.868	0.868	0.868	0.868	0.868
85	2.997	2.575	2.403	1.913	1.585	1.414	1.394	1.043	1.018	0.868	0.868	0.868	0.868
90	3.169	2.666	2.475	2.194	1.906	1.698	1.674	1.226	1.192	0.920	0.868	0.868	0.868
95	3.350	2.757	2.547	2.261	2.184	1.983	1.954	1.410	1.366	0.992	0.868	0.868	0.868
100	3.532	2.847	2.619	2.328	2.251	2.194	2.187	1.593	1.540	1.065	0.868	0.868	0.868
105	3.713	2.938	2.691	2.396	2.318	2.262	2.254	1.776	1.715	1.137	0.868	0.868	0.868
110	3.895	3.028	2.763	2.463	2.386	2.329	2.321	1.960	1.889	1.210	0.913	0.868	0.868
115	4.046	3.204	2.835	2.530	2.453	2.396	2.388	2.143	2.063	1.282	0.995	0.868	0.868
120	4.150	3.397	2.907	2.597	2.520	2.463	2.456	2.232	2.199	1.354	1.076	0.868	0.868
125	4.255	3.590	2.979	2.664	2.588	2.530	2.523	2.303	2.271	1.427	1.157	0.868	0.868
130	4.360	3.784	3.053	2.731	2.655	2.598	2.590	2.375	2.343	1.499	1.239	0.868	0.868
135	4.465	3.977	3.140	2.799	2.722	2.665	2.657	2.446	2.416	1.572	1.320	0.868	0.868
140	4.570	4.086	3.227	2.866	2.790	2.732	2.724	2.518	2.488	1.644	1.401	0.868	0.868
145	4.675	4.182	3.314	2.933	2.857	2.799	2.791	2.589	2.560	1.717	1.483	0.884	0.868
150	4.780	4.278	3.401	3.000	2.924	2.866	2.858	2.660	2.632	1.789	1.564	0.961	0.868
155	4.885	4.373	3.488	3.072	2.992	2.933	2.926	2.732	2.704	1.862	1.646	1.037	0.868
160	4.990	4.469	3.575	3.154	3.062	3.001	2.993	2.803	2.777	1.934	1.727	1.114	0.868
165	5.106	4.565	3.662	3.235	3.140	3.072	3.063	2.874	2.849	2.007	1.808	1.191	0.868
170	5.398	4.661	3.749	3.317	3.219	3.149	3.140	2.946	2.921	2.079	1.890	1.268	0.868
175	5.690	4.757	3.836	3.398	3.298	3.227	3.218	3.017	2.993	2.152	1.971	1.344	0.868
180	5.983	4.853	3.923	3.480	3.376	3.305	3.296	3.091	3.066	2.274	2.052	1.421	0.868
185	-	4.949	4.018	3.561	3.455	3.383	3.374	3.166	3.142	2.417	2.134	1.498	0.868
190	-	5.044	4.207	3.643	3.534	3.461	3.451	3.242	3.218	2.559	2.215	1.574	0.868
195	-	5.121	4.397	3.724	3.612	3.539	3.529	3.317	3.293	2.701	2.296	1.651	0.868
200	-	5.181	4.586	3.806	3.691	3.617	3.607	3.393	3.369	2.844	2.378	1.728	0.868
205	-	5.240	4.775	3.887	3.770	3.695	3.685	3.468	3.444	2.986	2.459	1.805	0.868
210	-	5.300	4.965	3.969	3.848	3.772	3.762	3.544	3.520	3.089	2.541	1.881	0.868
215	-	5.359	5.108	4.155	3.927	3.850	3.840	3.619	3.595	3.166	2.622	1.958	0.868
220	-	5.419	5.164	4.417	4.013	3.928	3.918	3.694	3.671	3.242	2.703	2.035	0.868
225	-	5.479	5.220	4.679	4.303	4.015	3.996	3.770	3.746	3.318	2.785	2.111	0.868

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

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SC901 & SC902

Loading Tables

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Table 28: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
230	-	5.538	5.276	4.941	4.593	4.315	4.277	3.845	3.822	3.395	2.866	2.188	0.868
235	-	5.598	5.332	5.113	4.883	4.616	4.580	3.921	3.898	3.471	2.947	2.265	0.868
240	-	5.657	5.388	5.169	5.105	4.917	4.882	3.996	3.973	3.547	3.029	2.341	0.868
245	-	5.717	5.444	5.224	5.162	5.113	5.107	4.269	4.175	3.624	3.103	2.418	0.868
250	-	5.777	5.500	5.279	5.218	5.171	5.165	4.562	4.460	3.700	3.177	2.495	0.922
255	-	5.836	5.556	5.335	5.274	5.228	5.222	4.854	4.745	3.776	3.250	2.572	1.020
260	-	5.896	5.612	5.390	5.330	5.285	5.279	5.101	5.030	3.853	3.323	2.648	1.118
265	-	5.955	5.668	5.446	5.386	5.342	5.336	5.163	5.139	3.929	3.396	2.725	1.216
270	-	6.015	5.724	5.501	5.443	5.399	5.394	5.226	5.202	4.007	3.469	2.802	1.314
275	-	6.075	5.780	5.557	5.499	5.457	5.451	5.288	5.265	4.165	3.542	2.878	1.412
280	-	6.134	5.836	5.612	5.555	5.514	5.508	5.350	5.328	4.322	3.615	2.955	1.510
285	-	6.194	5.892	5.667	5.611	5.571	5.566	5.412	5.391	4.479	3.688	3.032	1.608
290	-	-	5.948	5.723	5.668	5.628	5.623	5.475	5.455	4.636	3.762	3.102	1.706
295	-	-	6.004	5.778	5.724	5.685	5.680	5.537	5.518	4.793	3.835	3.171	1.804
300	-	-	6.060	5.834	5.780	5.743	5.738	5.599	5.581	4.950	3.908	3.240	1.902
305	-	-	6.116	5.889	5.836	5.800	5.795	5.661	5.644	5.100	3.981	3.309	2.001
310	-	-	6.172	5.944	5.892	5.857	5.852	5.724	5.707	5.190	4.090	3.378	2.099
315	-	-	6.228	6.000	5.949	5.914	5.910	5.786	5.770	5.280	4.214	3.447	2.197
320	-	-	-	6.055	6.005	5.971	5.967	5.848	5.833	5.370	4.338	3.516	2.295
325	-	-	-	6.111	6.061	6.029	6.024	5.910	5.896	5.460	4.462	3.585	2.393
330	-	-	-	6.166	6.117	6.086	6.082	5.973	5.959	5.550	4.587	3.654	2.491
335	-	-	-	6.222	6.173	6.143	6.139	6.035	6.023	5.640	4.711	3.723	2.589
340	-	-	-	6.277	6.230	6.200	6.196	6.097	6.086	5.730	4.835	3.792	2.687
345	-	-	-	-	6.286	6.257	6.254	6.159	6.149	5.820	4.959	3.861	2.785
350	-	-	-	-	-	-	-	6.222	6.212	5.910	5.083	3.930	2.883
355	-	-	-	-	-	-	-	6.284	6.275	6.000	5.208	3.999	2.981
360	-	-	-	-	-	-	-	-	-	6.090	5.332	4.116	3.068
365	-	-	-	-	-	-	-	-	-	6.180	5.456	4.235	3.135
370	-	-	-	-	-	-	-	-	-	6.270	5.580	4.354	3.201
375	-	-	-	-	-	-	-	-	-	6.360	5.704	4.473	3.268
380	-	-	-	-	-	-	-	-	-	-	5.829	4.592	3.334
385	-	-	-	-	-	-	-	-	-	-	5.953	4.711	3.401
390	-	-	-	-	-	-	-	-	-	-	6.077	4.830	3.467
395	-	-	-	-	-	-	-	-	-	-	6.201	4.949	3.534
400	-	-	-	-	-	-	-	-	-	-	6.325	5.068	3.601
405	-	-	-	-	-	-	-	-	-	-	-	5.203	3.667

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 29: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 75 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	2.155	1.773	1.465	1.178	1.113	1.069	1.064	0.927	0.868	0.868	0.868	0.868	0.868
55	2.812	2.157	1.813	1.492	1.418	1.369	1.363	1.181	0.868	0.868	0.868	0.868	0.868
60	3.220	2.374	2.181	1.872	1.797	1.747	1.741	1.495	0.868	0.868	0.868	0.868	0.868
65	3.493	2.585	2.301	2.189	2.173	2.125	2.118	1.808	0.868	0.868	0.868	0.868	0.868
70	3.766	2.795	2.422	2.272	2.249	2.236	2.234	2.122	1.723	0.868	0.868	0.868	0.868
75	4.021	3.005	2.543	2.354	2.326	2.309	2.307	2.225	2.213	0.890	0.868	0.868	0.868
80	4.156	3.196	2.664	2.437	2.403	2.382	2.379	2.289	2.276	1.259	0.868	0.868	0.868
85	4.291	3.382	2.785	2.519	2.480	2.455	2.452	2.352	2.339	1.628	0.970	0.868	0.868
90	4.426	3.568	2.905	2.602	2.557	2.528	2.524	2.416	2.403	1.997	1.095	0.874	0.868
95	4.561	3.754	3.026	2.684	2.634	2.601	2.597	2.479	2.466	2.205	1.220	0.959	0.868
100	4.696	3.940	3.217	2.767	2.710	2.674	2.669	2.543	2.529	2.267	1.345	1.043	0.868
105	4.831	4.109	3.420	2.849	2.787	2.747	2.742	2.606	2.592	2.330	1.470	1.128	0.868
110	4.966	4.269	3.623	2.932	2.864	2.820	2.814	2.670	2.656	2.392	1.596	1.212	0.868
115	5.379	4.429	3.826	3.014	2.941	2.893	2.887	2.733	2.719	2.455	1.721	1.297	0.868
120	5.792	4.589	4.021	3.251	3.018	2.966	2.959	2.797	2.782	2.517	1.846	1.382	0.883
125	-	4.749	4.168	3.575	3.288	3.039	3.032	2.860	2.845	2.580	1.971	1.466	0.956
130	-	4.909	4.314	3.899	3.659	3.357	3.319	2.924	2.909	2.643	2.096	1.551	1.030
135	-	5.069	4.461	4.091	4.012	3.696	3.651	2.987	2.972	2.705	2.204	1.636	1.104
140	-	5.548	4.607	4.221	4.139	4.015	3.982	3.071	3.035	2.768	2.285	1.720	1.177
145	-	6.027	4.754	4.351	4.265	4.149	4.130	3.326	3.252	2.830	2.366	1.805	1.251
150	-	-	4.900	4.480	4.392	4.283	4.265	3.580	3.494	2.893	2.447	1.889	1.324
155	-	-	5.046	4.610	4.519	4.416	4.400	3.835	3.736	2.955	2.528	1.974	1.398
160	-	-	5.143	4.740	4.645	4.550	4.535	4.063	3.978	3.018	2.609	2.059	1.472
165	-	-	5.218	4.869	4.772	4.684	4.670	4.237	4.166	3.143	2.691	2.143	1.545
170	-	-	5.294	4.999	4.899	4.817	4.805	4.412	4.348	3.313	2.772	2.228	1.619
175	-	-	5.369	5.106	5.026	4.951	4.940	4.587	4.530	3.484	2.853	2.313	1.692
180	-	-	5.445	5.161	5.116	5.085	5.075	4.761	4.712	3.654	2.934	2.397	1.766
185	-	-	5.521	5.215	5.170	5.141	5.137	4.936	4.894	3.825	3.015	2.482	1.840
190	-	-	5.596	5.270	5.225	5.195	5.191	5.096	5.076	3.995	3.129	2.566	1.913
195	-	-	5.672	5.325	5.279	5.249	5.245	5.149	5.138	4.293	3.263	2.651	1.987
200	-	-	5.748	5.380	5.333	5.303	5.299	5.202	5.191	4.597	3.396	2.736	2.060
205	-	-	5.823	5.434	5.388	5.357	5.353	5.255	5.244	4.901	3.529	2.820	2.134
210	-	-	5.899	5.489	5.442	5.411	5.407	5.308	5.297	5.109	3.662	2.905	2.208
215	-	-	5.974	5.544	5.496	5.465	5.461	5.361	5.350	5.160	3.796	2.990	2.281
220	-	-	6.050	5.599	5.551	5.519	5.515	5.414	5.403	5.212	3.929	3.087	2.355
225	-	-	6.126	5.653	5.605	5.573	5.569	5.467	5.456	5.264	4.677	3.207	2.428

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

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SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 29: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
230	-	-	6.201	5.708	5.659	5.627	5.623	5.520	5.509	5.316	5.126	3.326	2.502
235	-	-	-	5.763	5.714	5.681	5.677	5.574	5.562	5.368	5.176	3.446	2.576
240	-	-	-	5.818	5.768	5.735	5.731	5.627	5.615	5.419	5.227	3.566	2.649
245	-	-	-	5.872	5.822	5.789	5.784	5.680	5.668	5.471	5.277	3.686	2.723
250	-	-	-	5.927	5.877	5.843	5.838	5.733	5.721	5.523	5.328	3.806	2.796
255	-	-	-	5.982	5.931	5.897	5.892	5.786	5.774	5.575	5.378	3.926	2.870
260	-	-	-	6.037	5.985	5.951	5.946	5.839	5.827	5.627	5.429	4.187	2.944
265	-	-	-	6.091	6.040	6.005	6.000	5.892	5.880	5.678	5.479	4.708	3.017
270	-	-	-	6.146	6.094	6.059	6.054	5.945	5.933	5.730	5.529	5.107	3.116
275	-	-	-	6.201	6.148	6.113	6.108	5.998	5.986	5.782	5.580	5.174	3.229
280	-	-	-	-	6.203	6.166	6.162	6.052	6.039	5.834	5.630	5.241	3.342
285	-	-	-	-	-	-	6.216	6.105	6.092	5.886	5.681	5.308	3.455
290	-	-	-	-	-	-	-	6.158	6.145	5.937	5.731	5.375	3.568
295	-	-	-	-	-	-	-	6.211	6.198	5.989	5.782	5.441	3.682
300	-	-	-	-	-	-	-	-	-	6.041	5.832	5.508	3.795
305	-	-	-	-	-	-	-	-	-	6.093	5.883	5.575	3.908
310	-	-	-	-	-	-	-	-	-	6.145	5.933	5.642	4.022
315	-	-	-	-	-	-	-	-	-	6.196	5.984	5.709	4.142
320	-	-	-	-	-	-	-	-	-	-	6.034	5.776	4.263
325	-	-	-	-	-	-	-	-	-	-	6.085	5.843	4.383
330	-	-	-	-	-	-	-	-	-	-	6.135	5.910	4.503
335	-	-	-	-	-	-	-	-	-	-	6.185	5.977	4.623
340	-	-	-	-	-	-	-	-	-	-	6.236	6.043	4.744
345	-	-	-	-	-	-	-	-	-	-	-	6.110	4.864
350	-	-	-	-	-	-	-	-	-	-	-	6.177	4.984
355	-	-	-	-	-	-	-	-	-	-	-	6.244	5.241
360	-	-	-	-	-	-	-	-	-	-	-	6.311	5.498
365	-	-	-	-	-	-	-	-	-	-	-	-	5.754
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-
385	-	-	-	-	-	-	-	-	-	-	-	-	-
390	-	-	-	-	-	-	-	-	-	-	-	-	-
395	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-
405	-	-	-	-	-	-	-	-	-	-	-	-	-

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

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SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 30: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 90 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	4.411	3.272	1.890	1.587	1.517	1.470	1.464	1.318	1.301	1.029	0.868	0.868	0.868
55	4.544	3.525	2.294	1.966	1.888	1.835	1.828	1.662	1.643	1.334	0.868	0.868	0.868
60	4.677	3.777	2.684	2.267	2.223	2.200	2.197	2.076	2.056	1.732	0.868	0.868	0.868
65	4.810	4.018	3.066	2.451	2.380	2.341	2.337	2.246	2.240	2.130	0.868	0.868	0.868
70	4.943	4.163	3.347	2.634	2.537	2.483	2.478	2.344	2.336	2.233	0.868	0.868	0.868
75	5.076	4.308	3.627	2.818	2.693	2.625	2.618	2.441	2.431	2.301	1.453	0.868	0.868
80	5.209	4.453	3.908	3.002	2.850	2.766	2.758	2.538	2.526	2.369	2.176	0.928	0.868
85	5.342	4.598	4.101	3.172	3.007	2.908	2.898	2.635	2.621	2.437	2.236	1.104	0.917
90	-	4.743	4.248	3.338	3.182	3.051	3.038	2.732	2.717	2.505	2.295	1.279	0.973
95	-	4.887	4.396	3.504	3.363	3.246	3.232	2.829	2.812	2.573	2.355	1.455	1.028
100	-	5.032	4.543	3.669	3.544	3.441	3.428	2.926	2.907	2.641	2.415	1.630	1.084
105	-	5.386	4.691	3.835	3.724	3.636	3.625	3.023	3.003	2.709	2.475	1.806	1.140
110	-	5.874	4.839	4.001	3.905	3.831	3.821	3.309	3.240	2.777	2.535	1.981	1.196
115	-	6.361	4.986	4.188	4.086	4.024	4.015	3.645	3.586	2.845	2.595	2.157	1.252
120	-	-	5.265	4.375	4.267	4.200	4.191	3.981	3.933	2.913	2.655	2.237	1.308
125	-	-	5.848	4.563	4.448	4.377	4.368	4.158	4.134	2.981	2.715	2.309	1.364
130	-	-	6.430	4.750	4.629	4.554	4.544	4.324	4.299	3.172	2.774	2.380	1.420
135	-	-	-	4.937	4.811	4.730	4.720	4.490	4.464	4.074	2.834	2.452	1.475
140	-	-	-	5.122	4.992	4.907	4.896	4.655	4.629	4.221	2.894	2.523	1.531
145	-	-	-	5.298	5.151	5.084	5.072	4.821	4.794	4.368	2.954	2.594	1.587
150	-	-	-	5.473	5.285	5.200	5.191	4.987	4.959	4.515	3.014	2.666	1.643
155	-	-	-	5.648	5.419	5.315	5.304	5.118	5.104	4.661	3.396	2.737	1.699
160	-	-	-	5.823	5.553	5.430	5.416	5.193	5.176	4.808	4.031	2.809	1.755
165	-	-	-	5.998	5.687	5.544	5.529	5.268	5.248	4.955	4.225	2.880	1.811
170	-	-	-	6.174	5.822	5.659	5.642	5.343	5.320	5.094	4.419	2.951	1.866
175	-	-	-	6.349	5.956	5.774	5.755	5.418	5.392	5.147	4.613	3.023	1.922
180	-	-	-	-	6.090	5.888	5.867	5.493	5.464	5.201	4.807	3.233	1.978
185	-	-	-	-	6.224	6.003	5.980	5.567	5.536	5.255	5.001	3.502	2.034
190	-	-	-	-	6.358	6.117	6.093	5.642	5.607	5.309	5.118	3.771	2.090
195	-	-	-	-	-	6.232	6.206	5.717	5.679	5.362	5.170	4.078	2.146
200	-	-	-	-	-	6.347	6.318	5.792	5.751	5.416	5.223	4.616	2.324
205	-	-	-	-	-	-	-	5.867	5.823	5.470	5.276	5.095	2.610
210	-	-	-	-	-	-	-	5.942	5.895	5.524	5.328	5.144	2.896
215	-	-	-	-	-	-	-	6.017	5.967	5.577	5.381	5.194	3.420
220	-	-	-	-	-	-	-	6.092	6.039	5.631	5.433	5.243	4.201
225	-	-	-	-	-	-	-	6.167	6.111	5.685	5.486	5.292	4.981

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

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Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
230	-	-	-	-	-	-	-	6.242	6.182	5.738	5.538	5.342	5.134
235	-	-	-	-	-	-	-	-	6.254	5.792	5.591	5.391	5.187
240	-	-	-	-	-	-	-	-	-	5.846	5.643	5.441	5.240
245	-	-	-	-	-	-	-	-	-	5.900	5.696	5.490	5.293
250	-	-	-	-	-	-	-	-	-	5.953	5.749	5.539	5.345
255	-	-	-	-	-	-	-	-	-	6.007	5.801	5.589	5.398
260	-	-	-	-	-	-	-	-	-	6.061	5.854	5.638	5.451
265	-	-	-	-	-	-	-	-	-	6.114	5.906	5.687	5.504
270	-	-	-	-	-	-	-	-	-	-	5.959	5.737	5.556
275	-	-	-	-	-	-	-	-	-	-	6.011	5.786	5.609
280	-	-	-	-	-	-	-	-	-	-	6.064	5.835	5.662
285	-	-	-	-	-	-	-	-	-	-	6.116	5.885	5.715
290	-	-	-	-	-	-	-	-	-	-	6.169	5.934	5.767
295	-	-	-	-	-	-	-	-	-	-	-	5.984	5.820
300	-	-	-	-	-	-	-	-	-	-	-	6.033	5.873
305	-	-	-	-	-	-	-	-	-	-	-	6.082	5.926
310	-	-	-	-	-	-	-	-	-	-	-	6.132	5.978
315	-	-	-	-	-	-	-	-	-	-	-	6.181	6.031
320	-	-	-	-	-	-	-	-	-	-	-	-	6.084
325	-	-	-	-	-	-	-	-	-	-	-	-	6.137
330	-	-	-	-	-	-	-	-	-	-	-	-	6.189
335	-	-	-	-	-	-	-	-	-	-	-	-	6.242
340	-	-	-	-	-	-	-	-	-	-	-	-	-
345	-	-	-	-	-	-	-	-	-	-	-	-	-
350	-	-	-	-	-	-	-	-	-	-	-	-	-
355	-	-	-	-	-	-	-	-	-	-	-	-	-
360	-	-	-	-	-	-	-	-	-	-	-	-	-
365	-	-	-	-	-	-	-	-	-	-	-	-	-
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-
385	-	-	-	-	-	-	-	-	-	-	-	-	-
390	-	-	-	-	-	-	-	-	-	-	-	-	-
395	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-
405	-	-	-	-	-	-	-	-	-	-	-	-	-

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 3I: RHS/SHS - 4 Sided Columns
Fire Resistance Period: IO5 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	-	4.130	3.575	1.955	1.921	1.870	1.864	1.708	1.690	1.393	1.105	0.868	0.868
55	-	4.328	3.877	3.052	2.492	2.332	2.317	2.116	2.095	1.758	1.429	0.868	0.868
60	-	4.525	4.098	3.395	3.145	2.908	2.873	2.421	2.395	2.178	1.850	0.868	0.868
65	-	4.723	4.262	3.738	3.469	3.287	3.264	2.706	2.664	2.301	2.190	0.868	0.868
70	-	4.920	4.425	4.038	3.793	3.605	3.580	2.990	2.933	2.424	2.265	0.868	0.868
75	-	5.118	4.588	4.189	4.057	3.922	3.897	3.257	3.192	2.547	2.340	2.181	0.868
80	-	5.315	4.752	4.340	4.210	4.118	4.105	3.519	3.445	2.670	2.416	2.321	0.977
85	-	-	4.915	4.491	4.363	4.271	4.259	3.781	3.698	2.793	2.491	2.461	1.189
90	-	-	5.078	4.643	4.516	4.425	4.412	4.028	3.951	2.916	2.601	2.601	1.401
95	-	-	5.661	4.794	4.669	4.578	4.566	4.188	4.132	3.039	2.741	2.741	1.614
100	-	-	-	4.945	4.822	4.732	4.720	4.349	4.294	3.284	2.881	2.881	1.826
105	-	-	-	5.228	4.976	4.886	4.873	4.510	4.456	3.534	3.021	3.021	2.038
110	-	-	-	5.511	5.489	5.039	5.027	4.670	4.618	3.784	3.161	3.161	2.196
115	-	-	-	-	6.002	5.720	5.618	4.831	4.781	4.026	3.301	3.301	2.260
120	-	-	-	-	-	-	-	4.991	4.943	4.214	3.440	3.440	2.324
125	-	-	-	-	-	-	-	5.166	5.108	4.402	3.834	3.580	2.388
130	-	-	-	-	-	-	-	5.364	5.299	4.590	4.143	3.720	2.452
135	-	-	-	-	-	-	-	5.561	5.491	4.778	4.306	3.860	2.516
140	-	-	-	-	-	-	-	5.759	5.683	4.967	4.469	4.000	2.580
145	-	-	-	-	-	-	-	5.956	5.874	5.146	4.632	4.155	2.644
150	-	-	-	-	-	-	-	6.153	6.066	5.308	4.796	4.310	2.708
155	-	-	-	-	-	-	-	-	6.257	5.470	4.959	4.466	2.772
160	-	-	-	-	-	-	-	-	6.449	5.632	5.101	4.621	2.836
165	-	-	-	-	-	-	-	-	-	5.794	5.162	4.776	2.900
170	-	-	-	-	-	-	-	-	-	5.956	5.224	4.931	2.965
175	-	-	-	-	-	-	-	-	-	6.118	5.285	5.087	3.029
180	-	-	-	-	-	-	-	-	-	6.280	5.346	5.140	4.215
185	-	-	-	-	-	-	-	-	-	-	5.407	5.192	4.603
190	-	-	-	-	-	-	-	-	-	-	5.468	5.243	4.990
195	-	-	-	-	-	-	-	-	-	-	5.529	5.295	5.128
200	-	-	-	-	-	-	-	-	-	-	5.590	5.347	5.180
205	-	-	-	-	-	-	-	-	-	-	5.651	5.398	5.233
210	-	-	-	-	-	-	-	-	-	-	5.713	5.450	5.285
215	-	-	-	-	-	-	-	-	-	-	5.774	5.502	5.337
220	-	-	-	-	-	-	-	-	-	-	5.835	5.553	5.390
225	-	-	-	-	-	-	-	-	-	-	5.896	5.605	5.442

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 3I: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 105 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
230	-	-	-	-	-	-	-	-	-	-	5.957	5.657	5.494
235	-	-	-	-	-	-	-	-	-	-	6.018	5.708	5.547
240	-	-	-	-	-	-	-	-	-	-	6.079	5.760	5.599
245	-	-	-	-	-	-	-	-	-	-	6.140	5.812	5.651
250	-	-	-	-	-	-	-	-	-	-	-	5.863	5.704
255	-	-	-	-	-	-	-	-	-	-	-	5.915	5.756
260	-	-	-	-	-	-	-	-	-	-	-	5.967	5.808
265	-	-	-	-	-	-	-	-	-	-	-	6.019	5.861
270	-	-	-	-	-	-	-	-	-	-	-	6.070	5.913
275	-	-	-	-	-	-	-	-	-	-	-	6.122	5.965
280	-	-	-	-	-	-	-	-	-	-	-	6.174	6.018
285	-	-	-	-	-	-	-	-	-	-	-	-	6.070
290	-	-	-	-	-	-	-	-	-	-	-	-	6.122
295	-	-	-	-	-	-	-	-	-	-	-	-	6.175
300	-	-	-	-	-	-	-	-	-	-	-	-	-
305	-	-	-	-	-	-	-	-	-	-	-	-	-
310	-	-	-	-	-	-	-	-	-	-	-	-	-
315	-	-	-	-	-	-	-	-	-	-	-	-	-
320	-	-	-	-	-	-	-	-	-	-	-	-	-
325	-	-	-	-	-	-	-	-	-	-	-	-	-
330	-	-	-	-	-	-	-	-	-	-	-	-	-
335	-	-	-	-	-	-	-	-	-	-	-	-	-
340	-	-	-	-	-	-	-	-	-	-	-	-	-
345	-	-	-	-	-	-	-	-	-	-	-	-	-
350	-	-	-	-	-	-	-	-	-	-	-	-	-
355	-	-	-	-	-	-	-	-	-	-	-	-	-
360	-	-	-	-	-	-	-	-	-	-	-	-	-
365	-	-	-	-	-	-	-	-	-	-	-	-	-
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-
385	-	-	-	-	-	-	-	-	-	-	-	-	-
390	-	-	-	-	-	-	-	-	-	-	-	-	-
395	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-
405	-	-	-	-	-	-	-	-	-	-	-	-	-

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902 Loading Tables

Nullifire
Smart Protection

**Table 32: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 120 Minutes**

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	-	4.926	4.218	3.941	3.691	3.538	3.519	3.035	2.967	1.758	1.445	1.103	0.868
55	-	5.419	4.412	4.104	4.041	3.935	3.915	3.451	3.386	2.180	1.825	1.438	0.868
60	-	-	4.606	4.268	4.199	4.135	4.126	3.868	3.805	2.587	2.210	1.881	0.868
65	-	-	4.800	4.431	4.357	4.294	4.285	4.108	4.085	2.995	2.370	2.199	0.868
70	-	-	4.994	4.594	4.516	4.453	4.444	4.263	4.240	3.360	2.529	2.278	0.868
75	-	-	5.188	4.757	4.674	4.611	4.603	4.418	4.396	3.720	2.689	2.356	2.188
80	-	-	5.382	4.921	4.832	4.770	4.762	4.573	4.551	4.037	2.848	2.435	2.346
85	-	-	-	5.084	4.991	4.929	4.921	4.728	4.707	4.199	3.008	2.513	2.503
90	-	-	-	5.490	5.490	5.088	5.080	4.884	4.862	4.361	3.196	2.661	2.661
95	-	-	-	5.990	5.990	5.247	5.239	5.039	5.017	4.523	3.393	2.819	2.819
100	-	-	-	-	-	5.405	5.398	5.194	5.173	4.685	3.591	2.977	2.977
105	-	-	-	-	-	-	-	5.349	5.328	4.846	3.788	3.135	3.135
110	-	-	-	-	-	-	-	5.504	5.483	5.008	3.985	3.293	3.293
115	-	-	-	-	-	-	-	-	-	5.378	4.185	3.451	3.451
120	-	-	-	-	-	-	-	-	-	5.748	4.385	3.608	3.608
125	-	-	-	-	-	-	-	-	-	-	4.585	4.142	3.766
130	-	-	-	-	-	-	-	-	-	-	4.785	4.319	3.924
135	-	-	-	-	-	-	-	-	-	-	4.985	4.497	4.084
140	-	-	-	-	-	-	-	-	-	-	5.257	4.674	4.245
145	-	-	-	-	-	-	-	-	-	-	5.606	4.852	4.407
150	-	-	-	-	-	-	-	-	-	-	5.955	5.029	4.568
155	-	-	-	-	-	-	-	-	-	-	-	5.141	4.730
160	-	-	-	-	-	-	-	-	-	-	-	5.219	4.892
165	-	-	-	-	-	-	-	-	-	-	-	5.298	5.053
170	-	-	-	-	-	-	-	-	-	-	-	5.376	5.131
175	-	-	-	-	-	-	-	-	-	-	-	5.455	5.184
180	-	-	-	-	-	-	-	-	-	-	-	5.533	5.238
185	-	-	-	-	-	-	-	-	-	-	-	5.612	5.292
190	-	-	-	-	-	-	-	-	-	-	-	5.690	5.345
195	-	-	-	-	-	-	-	-	-	-	-	5.768	5.399
200	-	-	-	-	-	-	-	-	-	-	-	5.847	5.452
205	-	-	-	-	-	-	-	-	-	-	-	5.925	5.506
210	-	-	-	-	-	-	-	-	-	-	-	6.004	5.560
215	-	-	-	-	-	-	-	-	-	-	-	6.082	5.613
220	-	-	-	-	-	-	-	-	-	-	-	6.161	5.667
225	-	-	-	-	-	-	-	-	-	-	-	6.239	5.720

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 32: RHS/SHS - 4 Sided Columns
Fire Resistance Period: 120 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
230	-	-	-	-	-	-	-	-	-	-	-	-	5.774
235	-	-	-	-	-	-	-	-	-	-	-	-	5.828
240	-	-	-	-	-	-	-	-	-	-	-	-	5.881
245	-	-	-	-	-	-	-	-	-	-	-	-	5.935
250	-	-	-	-	-	-	-	-	-	-	-	-	5.989
255	-	-	-	-	-	-	-	-	-	-	-	-	6.042
260	-	-	-	-	-	-	-	-	-	-	-	-	6.096
265	-	-	-	-	-	-	-	-	-	-	-	-	6.149
270	-	-	-	-	-	-	-	-	-	-	-	-	-
275	-	-	-	-	-	-	-	-	-	-	-	-	-
280	-	-	-	-	-	-	-	-	-	-	-	-	-
285	-	-	-	-	-	-	-	-	-	-	-	-	-
290	-	-	-	-	-	-	-	-	-	-	-	-	-
295	-	-	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-	-	-
305	-	-	-	-	-	-	-	-	-	-	-	-	-
310	-	-	-	-	-	-	-	-	-	-	-	-	-
315	-	-	-	-	-	-	-	-	-	-	-	-	-
320	-	-	-	-	-	-	-	-	-	-	-	-	-
325	-	-	-	-	-	-	-	-	-	-	-	-	-
330	-	-	-	-	-	-	-	-	-	-	-	-	-
335	-	-	-	-	-	-	-	-	-	-	-	-	-
340	-	-	-	-	-	-	-	-	-	-	-	-	-
345	-	-	-	-	-	-	-	-	-	-	-	-	-
350	-	-	-	-	-	-	-	-	-	-	-	-	-
355	-	-	-	-	-	-	-	-	-	-	-	-	-
360	-	-	-	-	-	-	-	-	-	-	-	-	-
365	-	-	-	-	-	-	-	-	-	-	-	-	-
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-
385	-	-	-	-	-	-	-	-	-	-	-	-	-
390	-	-	-	-	-	-	-	-	-	-	-	-	-
395	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-
405	-	-	-	-	-	-	-	-	-	-	-	-	-

- For rectangular and square hollow columns, 50 mm wide self-adhesive plasterboard fiberglass tape is applied approximately at mid-depth of the intumescent coating as per NTN026

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 33: CHS - 4 Sided Columns
Fire Resistance Period: 15 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
45	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
50	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
55	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
60	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
65	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
70	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
75	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
80	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
85	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
90	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
95	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
100	0.486	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
105	0.515	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
110	0.544	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
115	0.572	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
120	0.601	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
125	0.630	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
130	0.659	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
135	0.687	0.476	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
140	0.716	0.494	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
145	0.745	0.511	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
150	0.774	0.529	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
155	0.802	0.546	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
160	0.831	0.564	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
165	0.860	0.581	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
170	0.888	0.599	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
175	0.917	0.616	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
180	0.946	0.634	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
185	0.975	0.651	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
190	1.003	0.669	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
195	1.032	0.686	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
200	1.061	0.704	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
205	1.090	0.721	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
210	1.118	0.739	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
215	1.147	0.756	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
220	1.176	0.774	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
225	1.205	0.791	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
230	1.233	0.809	0.478	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
235	1.266	0.826	0.496	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 33: CHS - 4 Sided Columns
Fire Resistance Period: 15 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
240	1.300	0.844	0.514	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
245	1.335	0.861	0.532	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
250	1.370	0.879	0.550	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
255	1.405	0.896	0.568	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
260	1.440	0.914	0.586	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
265	1.474	0.931	0.604	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
270	1.509	0.949	0.622	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
275	1.544	0.966	0.639	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
280	1.579	0.984	0.657	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
285	1.614	1.001	0.675	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
290	1.648	1.019	0.693	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
295	1.683	1.036	0.711	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
300	1.718	1.054	0.729	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
305	1.753	1.071	0.747	0.476	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
310	1.788	1.089	0.765	0.492	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
315	1.822	1.106	0.783	0.508	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
320	1.857	1.124	0.801	0.524	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
325	1.892	1.141	0.819	0.540	0.474	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
330	1.927	1.159	0.837	0.556	0.490	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
335	1.962	1.176	0.855	0.572	0.505	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
340	1.997	1.194	0.873	0.588	0.521	0.478	0.473	0.473	0.473	0.473	0.473	0.473	0.473
345	2.036	1.211	0.891	0.604	0.536	0.493	0.488	0.473	0.473	0.473	0.473	0.473	0.473
350	2.075	1.229	0.908	0.620	0.551	0.508	0.503	0.473	0.473	0.473	0.473	0.473	0.473
355	2.114	1.246	0.926	0.636	0.567	0.523	0.517	0.473	0.473	0.473	0.473	0.473	0.473
360	2.153	1.285	0.944	0.652	0.582	0.538	0.532	0.473	0.473	0.473	0.473	0.473	0.473
365	2.192	1.323	0.962	0.668	0.597	0.553	0.547	0.473	0.473	0.473	0.473	0.473	0.473
370	2.230	1.361	0.980	0.684	0.613	0.567	0.562	0.473	0.473	0.473	0.473	0.473	0.473
375	2.269	1.400	0.998	0.700	0.628	0.582	0.577	0.473	0.473	0.473	0.473	0.473	0.473
380	2.308	1.438	1.016	0.716	0.643	0.597	0.592	0.473	0.473	0.473	0.473	0.473	0.473
385	2.347	1.476	1.034	0.732	0.659	0.612	0.607	0.473	0.473	0.473	0.473	0.473	0.473
390	2.386	1.515	1.052	0.748	0.674	0.627	0.621	0.475	0.473	0.473	0.473	0.473	0.473
395	2.425	1.553	1.070	0.764	0.689	0.642	0.636	0.488	0.473	0.473	0.473	0.473	0.473
400	2.464	1.591	1.088	0.780	0.705	0.657	0.651	0.502	0.484	0.473	0.473	0.473	0.473
405	2.503	1.630	1.106	0.795	0.720	0.672	0.666	0.515	0.498	0.473	0.473	0.473	0.473
410	2.542	1.668	1.124	0.811	0.736	0.687	0.681	0.529	0.511	0.473	0.473	0.473	0.473
415	2.581	1.706	1.142	0.827	0.751	0.702	0.696	0.542	0.524	0.473	0.473	0.473	0.473
420	2.619	1.745	1.160	0.843	0.766	0.717	0.711	0.556	0.538	0.473	0.473	0.473	0.473
425	2.658	1.783	1.177	0.859	0.782	0.731	0.725	0.569	0.551	0.473	0.473	0.473	0.473
430	2.697	1.821	1.195	0.875	0.797	0.746	0.740	0.583	0.564	0.473	0.473	0.473	0.473
435	2.736	1.860	1.213	0.891	0.812	0.761	0.755	0.596	0.577	0.473	0.473	0.473	0.473

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 34: CHS - 4 Sided Columns
Fire Resistance Period: 30 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	0.537	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
45	0.607	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
50	0.677	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
55	0.746	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
60	0.816	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
65	0.885	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
70	0.955	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
75	1.025	0.482	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
80	1.094	0.572	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
85	1.164	0.661	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
90	1.234	0.750	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
95	1.416	0.839	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
100	1.622	0.928	0.490	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
105	1.828	1.017	0.568	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
110	2.001	1.106	0.647	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
115	2.046	1.195	0.726	0.502	0.476	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
120	2.090	1.284	0.805	0.534	0.506	0.489	0.487	0.473	0.473	0.473	0.473	0.473	0.473
125	2.135	1.373	0.883	0.566	0.536	0.518	0.516	0.473	0.473	0.473	0.473	0.473	0.473
130	2.179	1.462	0.962	0.597	0.565	0.547	0.545	0.486	0.480	0.473	0.473	0.473	0.473
135	2.224	1.551	1.041	0.629	0.595	0.576	0.573	0.511	0.505	0.473	0.473	0.473	0.473
140	2.269	1.639	1.120	0.661	0.625	0.604	0.602	0.536	0.529	0.473	0.473	0.473	0.473
145	2.313	1.728	1.198	0.693	0.655	0.633	0.630	0.560	0.553	0.473	0.473	0.473	0.473
150	2.358	1.817	1.271	0.724	0.685	0.662	0.659	0.585	0.578	0.473	0.473	0.473	0.473
155	2.402	1.906	1.335	0.756	0.715	0.691	0.688	0.610	0.602	0.473	0.473	0.473	0.473
160	2.447	1.993	1.398	0.788	0.745	0.719	0.716	0.635	0.626	0.473	0.473	0.473	0.473
165	2.492	2.030	1.461	0.819	0.775	0.748	0.745	0.660	0.651	0.473	0.473	0.473	0.473
170	2.536	2.067	1.525	0.851	0.805	0.777	0.773	0.684	0.675	0.473	0.473	0.473	0.473
175	2.581	2.103	1.588	0.883	0.835	0.806	0.802	0.709	0.699	0.473	0.473	0.473	0.473
180	2.625	2.140	1.652	0.915	0.865	0.834	0.831	0.734	0.724	0.474	0.473	0.473	0.473
185	2.670	2.177	1.715	0.946	0.895	0.863	0.859	0.759	0.748	0.497	0.473	0.473	0.473
190	2.715	2.214	1.778	0.978	0.925	0.892	0.888	0.783	0.773	0.520	0.473	0.473	0.473
195	2.759	2.251	1.842	1.010	0.955	0.921	0.916	0.808	0.797	0.543	0.473	0.473	0.473
200	2.804	2.287	1.905	1.042	0.985	0.949	0.945	0.833	0.821	0.566	0.473	0.473	0.473
205	2.848	2.324	1.968	1.073	1.015	0.978	0.974	0.858	0.846	0.589	0.473	0.473	0.473
210	2.893	2.361	2.014	1.105	1.045	1.007	1.002	0.883	0.870	0.612	0.473	0.473	0.473
215	2.938	2.398	2.050	1.137	1.075	1.036	1.031	0.907	0.894	0.636	0.473	0.473	0.473
220	2.982	2.435	2.085	1.168	1.105	1.064	1.059	0.932	0.919	0.659	0.473	0.473	0.473
225	3.027	2.471	2.121	1.200	1.135	1.093	1.088	0.957	0.943	0.682	0.473	0.473	0.473
230	3.071	2.508	2.156	1.232	1.165	1.122	1.117	0.982	0.967	0.705	0.473	0.473	0.473
235	3.116	2.545	2.192	1.278	1.195	1.151	1.145	1.007	0.992	0.728	0.473	0.473	0.473

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table 34: CHS - 4 Sided Columns
Fire Resistance Period: 30 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
240	3.161	2.582	2.227	1.335	1.225	1.179	1.174	1.031	1.016	0.751	0.487	0.473	0.473
245	3.205	2.619	2.262	1.392	1.262	1.208	1.202	1.056	1.041	0.774	0.509	0.473	0.473
250	3.250	2.655	2.298	1.449	1.319	1.237	1.231	1.081	1.065	0.797	0.531	0.473	0.473
255	3.294	2.692	2.333	1.507	1.375	1.286	1.274	1.106	1.089	0.820	0.553	0.473	0.473
260	3.339	2.729	2.369	1.564	1.431	1.345	1.333	1.131	1.114	0.843	0.575	0.473	0.473
265	3.384	2.766	2.404	1.621	1.488	1.404	1.392	1.155	1.138	0.866	0.597	0.473	0.473
270	3.428	2.803	2.440	1.679	1.544	1.463	1.452	1.180	1.162	0.889	0.619	0.473	0.473
275	3.473	2.839	2.475	1.736	1.600	1.521	1.511	1.205	1.187	0.912	0.640	0.473	0.473
280	3.528	2.876	2.511	1.793	1.657	1.580	1.570	1.230	1.211	0.935	0.662	0.473	0.473
285	3.605	2.913	2.546	1.850	1.713	1.639	1.629	1.271	1.235	0.958	0.684	0.473	0.473
290	3.682	2.950	2.582	1.908	1.769	1.698	1.688	1.345	1.289	0.981	0.706	0.473	0.473
295	3.760	2.986	2.617	1.965	1.826	1.757	1.747	1.419	1.366	1.004	0.728	0.473	0.473
300	3.837	3.023	2.652	2.014	1.882	1.815	1.807	1.492	1.442	1.027	0.750	0.488	0.473
305	3.914	3.060	2.688	2.056	1.938	1.874	1.866	1.566	1.518	1.050	0.772	0.504	0.473
310	3.992	3.097	2.723	2.098	1.994	1.933	1.925	1.640	1.594	1.073	0.794	0.520	0.473
315	4.069	3.134	2.759	2.140	2.035	1.992	1.984	1.713	1.671	1.097	0.816	0.536	0.473
320	4.146	3.170	2.794	2.182	2.077	2.032	2.027	1.787	1.747	1.120	0.838	0.552	0.473
325	4.223	3.207	2.830	2.224	2.118	2.072	2.067	1.861	1.823	1.143	0.860	0.568	0.473
330	4.301	3.244	2.865	2.266	2.159	2.112	2.107	1.934	1.900	1.166	0.882	0.584	0.473
335	4.378	3.281	2.901	2.308	2.201	2.152	2.147	2.000	1.976	1.189	0.904	0.600	0.473
340	4.455	3.318	2.936	2.350	2.242	2.192	2.186	2.036	2.020	1.212	0.926	0.616	0.473
345	4.532	3.354	2.972	2.392	2.283	2.233	2.226	2.073	2.056	1.235	0.948	0.632	0.473
350	4.610	3.391	3.007	2.434	2.324	2.273	2.266	2.109	2.092	1.307	0.970	0.648	0.473
355	4.687	3.428	3.043	2.476	2.366	2.313	2.306	2.145	2.128	1.424	0.991	0.664	0.473
360	4.764	3.465	3.078	2.518	2.407	2.353	2.346	2.182	2.164	1.542	1.013	0.680	0.473
365	4.842	3.502	3.113	2.560	2.448	2.393	2.386	2.218	2.200	1.660	1.035	0.696	0.473
370	4.919	3.549	3.149	2.602	2.490	2.433	2.426	2.255	2.236	1.778	1.057	0.712	0.473
375	4.996	3.598	3.184	2.644	2.531	2.473	2.466	2.291	2.272	1.895	1.079	0.728	0.473
380	-	3.646	3.220	2.686	2.572	2.513	2.506	2.327	2.308	1.997	1.101	0.744	0.473
385	-	3.694	3.255	2.728	2.614	2.553	2.546	2.364	2.344	2.027	1.123	0.760	0.473
390	-	3.743	3.291	2.770	2.655	2.594	2.586	2.400	2.380	2.057	1.145	0.776	0.473
395	-	3.791	3.326	2.812	2.696	2.634	2.626	2.437	2.416	2.086	1.167	0.792	0.473
400	-	3.839	3.362	2.854	2.738	2.674	2.666	2.473	2.452	2.116	1.189	0.808	0.473
405	-	3.887	3.397	2.896	2.779	2.714	2.706	2.509	2.488	2.146	1.211	0.824	0.473
410	-	3.936	3.433	2.938	2.820	2.754	2.746	2.546	2.524	2.175	1.233	0.841	0.473
415	-	3.984	3.468	2.980	2.861	2.794	2.786	2.582	2.560	2.205	1.288	0.857	0.473
420	-	4.032	3.504	3.022	2.903	2.834	2.826	2.619	2.596	2.234	1.396	0.873	0.473
425	-	4.080	3.547	3.064	2.944	2.874	2.866	2.655	2.632	2.264	1.503	0.889	0.473
430	-	4.129	3.590	3.106	2.985	2.914	2.906	2.691	2.668	2.294	1.610	0.905	0.473
435	-	4.177	3.634	3.148	3.027	2.954	2.946	2.728	2.704	2.323	1.717	0.921	0.473

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 35: CHS - 4 Sided Columns
Fire Resistance Period: 45 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	1.349	0.826	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
45	1.519	0.915	0.547	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
50	1.689	1.003	0.621	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
55	1.858	1.092	0.696	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
60	2.006	1.181	0.770	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
65	2.074	1.305	0.844	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
70	2.142	1.521	0.919	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
75	2.210	1.738	0.993	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
80	2.278	1.954	1.067	0.578	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
85	2.345	2.027	1.141	0.699	0.524	0.473	0.473	0.473	0.473	0.473	0.473	0.473	0.473
90	2.413	2.070	1.216	0.820	0.659	0.604	0.597	0.473	0.473	0.473	0.473	0.473	0.473
95	2.481	2.113	1.389	0.942	0.795	0.736	0.729	0.554	0.537	0.473	0.473	0.473	0.473
100	2.549	2.156	1.631	1.063	0.930	0.868	0.861	0.675	0.656	0.473	0.473	0.473	0.473
105	2.617	2.198	1.872	1.184	1.066	1.000	0.993	0.795	0.775	0.489	0.473	0.473	0.473
110	2.684	2.241	2.012	1.304	1.201	1.133	1.124	0.916	0.894	0.564	0.473	0.473	0.473
115	2.752	2.284	2.050	1.421	1.322	1.262	1.254	1.036	1.014	0.638	0.473	0.473	0.473
120	2.820	2.327	2.089	1.539	1.436	1.371	1.364	1.156	1.133	0.713	0.473	0.473	0.473
125	2.888	2.369	2.127	1.657	1.549	1.481	1.473	1.272	1.251	0.788	0.543	0.482	0.473
130	2.956	2.412	2.166	1.774	1.662	1.591	1.582	1.372	1.350	0.863	0.620	0.501	0.473
135	3.023	2.455	2.205	1.892	1.776	1.701	1.692	1.472	1.449	0.937	0.696	0.521	0.473
140	3.091	2.498	2.243	1.998	1.889	1.811	1.801	1.572	1.548	1.012	0.773	0.540	0.473
145	3.159	2.540	2.282	2.037	1.996	1.921	1.910	1.673	1.647	1.087	0.849	0.560	0.473
150	3.227	2.583	2.321	2.077	2.035	2.006	2.002	1.773	1.746	1.162	0.926	0.579	0.473
155	3.295	2.626	2.359	2.116	2.075	2.045	2.042	1.873	1.846	1.236	1.002	0.599	0.473
160	3.362	2.669	2.398	2.156	2.114	2.085	2.081	1.973	1.945	1.344	1.079	0.618	0.473
165	3.430	2.711	2.437	2.195	2.154	2.125	2.121	2.024	2.013	1.457	1.155	0.637	0.473
170	3.498	2.754	2.475	2.235	2.193	2.164	2.160	2.064	2.053	1.569	1.232	0.657	0.473
175	3.622	2.797	2.514	2.274	2.233	2.204	2.200	2.104	2.093	1.682	1.309	0.676	0.473
180	3.750	2.840	2.552	2.314	2.272	2.243	2.240	2.144	2.133	1.795	1.385	0.696	0.473
185	3.879	2.882	2.591	2.353	2.312	2.283	2.279	2.184	2.173	1.908	1.462	0.715	0.473
190	4.007	2.925	2.630	2.393	2.351	2.322	2.319	2.224	2.213	2.001	1.538	0.735	0.473
195	4.135	2.968	2.668	2.432	2.391	2.362	2.358	2.264	2.253	2.039	1.615	0.754	0.473
200	4.263	3.011	2.707	2.472	2.430	2.402	2.398	2.304	2.293	2.076	1.691	0.773	0.473
205	4.392	3.053	2.746	2.511	2.470	2.441	2.438	2.344	2.333	2.113	1.768	0.793	0.473
210	4.520	3.096	2.784	2.551	2.509	2.481	2.477	2.384	2.373	2.151	1.844	0.812	0.473
215	4.648	3.139	2.823	2.590	2.549	2.520	2.517	2.424	2.413	2.188	1.921	0.832	0.490
220	4.776	3.182	2.862	2.630	2.588	2.560	2.556	2.464	2.453	2.226	1.994	0.851	0.515
225	4.905	3.224	2.900	2.669	2.628	2.600	2.596	2.504	2.493	2.263	2.027	0.870	0.539
230	-	3.267	2.939	2.709	2.667	2.639	2.635	2.543	2.533	2.300	2.060	0.890	0.564
235	-	3.310	2.978	2.748	2.707	2.679	2.675	2.583	2.572	2.338	2.093	0.909	0.588

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 35: CHS - 4 Sided Columns
Fire Resistance Period: 45 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
240	-	3.353	3.016	2.788	2.746	2.718	2.715	2.623	2.612	2.375	2.126	0.929	0.613
245	-	3.395	3.055	2.827	2.786	2.758	2.754	2.663	2.652	2.412	2.159	0.948	0.637
250	-	3.438	3.093	2.867	2.825	2.797	2.794	2.703	2.692	2.450	2.192	0.968	0.662
255	-	3.481	3.132	2.906	2.865	2.837	2.833	2.743	2.732	2.487	2.225	0.987	0.686
260	-	3.557	3.171	2.946	2.904	2.877	2.873	2.783	2.772	2.524	2.258	1.006	0.711
265	-	3.667	3.209	2.985	2.944	2.916	2.913	2.823	2.812	2.562	2.291	1.026	0.736
270	-	3.778	3.248	3.025	2.984	2.956	2.952	2.863	2.852	2.599	2.324	1.045	0.760
275	-	3.889	3.287	3.064	3.023	2.995	2.992	2.903	2.892	2.637	2.357	1.065	0.785
280	-	3.999	3.325	3.104	3.063	3.035	3.031	2.943	2.932	2.674	2.390	1.084	0.809
285	-	4.110	3.364	3.143	3.102	3.074	3.071	2.983	2.972	2.711	2.423	1.104	0.834
290	-	4.220	3.403	3.182	3.142	3.114	3.111	3.023	3.012	2.749	2.456	1.123	0.858
295	-	4.331	3.441	3.222	3.181	3.154	3.150	3.062	3.052	2.786	2.488	1.142	0.883
300	-	4.442	3.480	3.261	3.221	3.193	3.190	3.102	3.092	2.823	2.521	1.162	0.908
305	-	4.552	3.547	3.301	3.260	3.233	3.229	3.142	3.132	2.861	2.554	1.181	0.932
310	-	4.663	3.657	3.340	3.300	3.272	3.269	3.182	3.172	2.898	2.587	1.201	0.957
315	-	4.773	3.767	3.380	3.339	3.312	3.309	3.222	3.212	2.936	2.620	1.220	0.981
320	-	4.884	3.876	3.419	3.379	3.352	3.348	3.262	3.252	2.973	2.653	1.239	1.006
325	-	4.995	3.986	3.459	3.418	3.391	3.388	3.302	3.292	3.010	2.686	1.684	1.030
330	-	-	4.096	3.498	3.458	3.431	3.427	3.342	3.332	3.048	2.719	2.012	1.055
335	-	-	4.206	3.578	3.497	3.470	3.467	3.382	3.372	3.085	2.752	2.049	1.079
340	-	-	4.316	3.664	3.571	3.516	3.510	3.422	3.412	3.122	2.785	2.087	1.104
345	-	-	4.425	3.749	3.650	3.592	3.585	3.462	3.452	3.160	2.818	2.124	1.129
350	-	-	4.535	3.834	3.730	3.668	3.660	3.502	3.492	3.197	2.851	2.162	1.153
355	-	-	4.645	3.919	3.809	3.743	3.735	3.564	3.548	3.234	2.884	2.199	1.178
360	-	-	4.755	4.005	3.889	3.819	3.811	3.628	3.610	3.272	2.917	2.236	1.202
365	-	-	4.865	4.090	3.968	3.895	3.886	3.691	3.672	3.309	2.950	2.274	1.227
370	-	-	4.974	4.175	4.048	3.970	3.961	3.755	3.734	3.347	2.983	2.311	1.288
375	-	-	-	4.261	4.127	4.046	4.036	3.818	3.797	3.384	3.016	2.349	1.483
380	-	-	-	4.346	4.207	4.122	4.112	3.881	3.859	3.421	3.049	2.386	1.678
385	-	-	-	4.431	4.286	4.198	4.187	3.945	3.921	3.459	3.082	2.424	1.873
390	-	-	-	4.517	4.366	4.273	4.262	4.008	3.983	3.496	3.115	2.461	2.002
395	-	-	-	4.602	4.445	4.349	4.338	4.072	4.045	3.545	3.147	2.498	2.029
400	-	-	-	4.687	4.525	4.425	4.413	4.135	4.107	3.597	3.180	2.536	2.055
405	-	-	-	4.773	4.604	4.501	4.488	4.199	4.170	3.649	3.213	2.573	2.082
410	-	-	-	4.858	4.684	4.576	4.563	4.262	4.232	3.700	3.246	2.611	2.109
415	-	-	-	4.943	4.763	4.652	4.639	4.326	4.294	3.752	3.279	2.648	2.135
420	-	-	-	5.028	4.843	4.728	4.714	4.389	4.356	3.804	3.312	2.686	2.162
425	-	-	-	-	4.922	4.803	4.789	4.453	4.418	3.855	3.345	2.723	2.188
430	-	-	-	-	5.002	4.879	4.864	4.516	4.480	3.907	3.378	2.760	2.215
435	-	-	-	-	-	4.955	4.940	4.579	4.543	3.959	3.411	2.798	2.241

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Table 36: CHS - 4 Sided Columns
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	1.983	1.431	1.076	0.765	0.680	0.648	0.644	0.547	0.535	0.473	0.473	0.473	0.473
45	2.091	1.644	1.200	0.848	0.759	0.720	0.715	0.617	0.605	0.473	0.473	0.473	0.473
50	2.199	1.858	1.361	0.932	0.838	0.792	0.787	0.687	0.675	0.473	0.473	0.473	0.473
55	2.308	2.021	1.543	1.015	0.916	0.865	0.858	0.757	0.745	0.473	0.473	0.473	0.473
60	2.416	2.099	1.725	1.099	0.995	0.937	0.930	0.826	0.815	0.473	0.473	0.473	0.473
65	2.524	2.176	1.907	1.182	1.073	1.009	1.002	0.896	0.885	0.495	0.473	0.473	0.473
70	2.632	2.254	2.028	1.308	1.152	1.082	1.073	0.966	0.955	0.592	0.473	0.473	0.473
75	2.740	2.331	2.096	1.568	1.231	1.154	1.145	1.036	1.025	0.689	0.473	0.473	0.473
80	2.849	2.409	2.164	1.829	1.503	1.226	1.216	1.106	1.095	0.786	0.473	0.473	0.473
85	2.957	2.486	2.232	2.010	1.822	1.534	1.486	1.175	1.165	0.883	0.473	0.473	0.473
90	3.065	2.564	2.300	2.057	2.014	1.930	1.896	1.245	1.235	0.980	0.502	0.473	0.473
95	3.173	2.641	2.368	2.105	2.060	2.030	2.027	1.546	1.489	1.077	0.631	0.473	0.473
100	3.282	2.719	2.436	2.153	2.106	2.076	2.072	1.850	1.777	1.174	0.760	0.473	0.473
105	3.390	2.796	2.504	2.200	2.153	2.121	2.118	2.015	2.003	1.281	0.889	0.549	0.473
110	3.498	2.874	2.572	2.248	2.199	2.167	2.163	2.057	2.045	1.417	1.018	0.649	0.473
115	3.982	2.951	2.640	2.296	2.245	2.212	2.208	2.100	2.087	1.554	1.147	0.748	0.482
120	4.485	3.029	2.708	2.343	2.292	2.258	2.254	2.142	2.129	1.690	1.272	0.848	0.517
125	-	3.106	2.776	2.391	2.338	2.303	2.299	2.185	2.171	1.826	1.385	0.948	0.551
130	-	3.184	2.844	2.438	2.384	2.349	2.344	2.227	2.214	1.962	1.498	1.047	0.585
135	-	3.261	2.912	2.486	2.431	2.394	2.390	2.270	2.256	2.023	1.611	1.147	0.620
140	-	3.339	2.980	2.534	2.477	2.440	2.435	2.312	2.298	2.063	1.723	1.247	0.654
145	-	3.416	3.048	2.581	2.523	2.485	2.481	2.355	2.340	2.102	1.836	1.348	0.689
150	-	3.494	3.116	2.629	2.570	2.531	2.526	2.397	2.382	2.142	1.949	1.450	0.723
155	-	3.689	3.184	2.676	2.616	2.576	2.571	2.440	2.424	2.181	2.017	1.552	0.757
160	-	3.899	3.252	2.724	2.662	2.622	2.617	2.482	2.467	2.221	2.057	1.653	0.792
165	-	4.110	3.320	2.772	2.709	2.667	2.662	2.525	2.509	2.261	2.096	1.755	0.826
170	-	4.321	3.388	2.819	2.755	2.713	2.708	2.567	2.551	2.300	2.136	1.857	0.861
175	-	4.531	3.456	2.867	2.801	2.758	2.753	2.610	2.593	2.340	2.176	1.958	0.895
180	-	4.742	3.537	2.915	2.848	2.804	2.798	2.653	2.635	2.379	2.216	2.019	0.929
185	-	4.953	3.648	2.962	2.894	2.850	2.844	2.695	2.677	2.419	2.256	2.059	0.964
190	-	-	3.760	3.010	2.940	2.895	2.889	2.738	2.720	2.459	2.295	2.099	0.998
195	-	-	3.872	3.057	2.987	2.941	2.935	2.780	2.762	2.498	2.335	2.139	1.033
200	-	-	3.983	3.105	3.033	2.986	2.980	2.823	2.804	2.538	2.375	2.179	1.067
205	-	-	4.095	3.153	3.079	3.032	3.025	2.865	2.846	2.577	2.415	2.219	1.102
210	-	-	4.207	3.200	3.126	3.077	3.071	2.908	2.888	2.617	2.455	2.259	1.136
215	-	-	4.318	3.248	3.172	3.123	3.116	2.950	2.930	2.657	2.494	2.299	1.170
220	-	-	4.430	3.296	3.218	3.168	3.162	2.993	2.973	2.696	2.534	2.339	1.205
225	-	-	4.542	3.343	3.264	3.214	3.207	3.035	3.015	2.736	2.574	2.379	1.239
230	-	-	4.653	3.391	3.311	3.259	3.252	3.078	3.057	2.775	2.614	2.419	1.546
235	-	-	4.765	3.438	3.357	3.305	3.298	3.120	3.099	2.815	2.654	2.459	1.920

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
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Table 36: CHS - 4 Sided Columns
Fire Resistance Period: 60 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
240	-	-	4.877	3.486	3.403	3.350	3.343	3.163	3.141	2.855	2.694	2.499	2.022
245	-	-	4.988	3.619	3.450	3.396	3.389	3.205	3.183	2.894	2.733	2.539	2.058
250	-	-	-	3.799	3.496	3.441	3.434	3.248	3.226	2.934	2.773	2.579	2.095
255	-	-	-	3.980	3.636	3.487	3.479	3.290	3.268	2.974	2.813	2.619	2.132
260	-	-	-	4.160	3.793	3.595	3.571	3.333	3.310	3.013	2.853	2.659	2.168
265	-	-	-	4.340	3.950	3.738	3.713	3.375	3.352	3.053	2.893	2.700	2.205
270	-	-	-	4.520	4.107	3.882	3.855	3.418	3.394	3.092	2.932	2.740	2.242
275	-	-	-	4.701	4.264	4.025	3.997	3.461	3.437	3.132	2.972	2.780	2.278
280	-	-	-	4.881	4.420	4.169	4.139	3.503	3.479	3.172	3.012	2.820	2.315
285	-	-	-	-	4.577	4.312	4.281	3.635	3.560	3.211	3.052	2.860	2.351
290	-	-	-	-	4.734	4.456	4.423	3.767	3.695	3.251	3.092	2.900	2.388
295	-	-	-	-	4.891	4.599	4.565	3.899	3.829	3.290	3.131	2.940	2.425
300	-	-	-	-	-	4.743	4.707	4.031	3.964	3.330	3.171	2.980	2.461
305	-	-	-	-	-	4.886	4.849	4.163	4.098	3.370	3.211	3.020	2.498
310	-	-	-	-	-	5.030	4.991	4.295	4.233	3.409	3.251	3.060	2.535
315	-	-	-	-	-	-	-	4.427	4.367	3.449	3.291	3.100	2.571
320	-	-	-	-	-	-	-	4.559	4.502	3.488	3.331	3.140	2.608
325	-	-	-	-	-	-	-	4.691	4.636	3.589	3.370	3.180	2.645
330	-	-	-	-	-	-	-	4.823	4.771	3.724	3.410	3.220	2.681
335	-	-	-	-	-	-	-	4.954	4.906	3.859	3.450	3.260	2.718
340	-	-	-	-	-	-	-	-	-	3.994	3.490	3.300	2.755
345	-	-	-	-	-	-	-	-	-	4.129	3.559	3.340	2.791
350	-	-	-	-	-	-	-	-	-	4.264	3.643	3.380	2.828
355	-	-	-	-	-	-	-	-	-	4.399	3.728	3.420	2.865
360	-	-	-	-	-	-	-	-	-	4.534	3.812	3.460	2.901
365	-	-	-	-	-	-	-	-	-	4.670	3.896	3.500	2.938
370	-	-	-	-	-	-	-	-	-	4.805	3.980	3.551	2.975
375	-	-	-	-	-	-	-	-	-	4.940	4.064	3.603	3.011
380	-	-	-	-	-	-	-	-	-	-	4.149	3.655	3.048
385	-	-	-	-	-	-	-	-	-	-	4.233	3.707	3.084
390	-	-	-	-	-	-	-	-	-	-	4.317	3.759	3.121
395	-	-	-	-	-	-	-	-	-	-	4.401	3.811	3.158
400	-	-	-	-	-	-	-	-	-	-	4.485	3.862	3.194
405	-	-	-	-	-	-	-	-	-	-	4.569	3.914	3.231
410	-	-	-	-	-	-	-	-	-	-	4.654	3.966	3.268
415	-	-	-	-	-	-	-	-	-	-	4.738	4.018	3.304
420	-	-	-	-	-	-	-	-	-	-	4.822	4.070	3.341
425	-	-	-	-	-	-	-	-	-	-	4.906	4.121	3.378
430	-	-	-	-	-	-	-	-	-	-	4.990	4.173	3.414
435	-	-	-	-	-	-	-	-	-	-	-	4.225	3.451

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Smart Protection

Table 37: CHS - 4 Sided Columns
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	2.499	2.002	1.563	1.256	1.138	1.123	1.117	0.968	0.955	0.725	0.529	0.473	0.473
45	2.658	2.127	1.801	1.448	1.333	1.251	1.242	1.074	1.059	0.800	0.598	0.473	0.473
50	2.816	2.251	2.010	1.640	1.528	1.448	1.438	1.179	1.163	0.875	0.667	0.473	0.473
55	2.975	2.375	2.099	1.833	1.723	1.646	1.636	1.325	1.288	0.951	0.736	0.473	0.473
60	3.133	2.499	2.189	2.005	1.918	1.843	1.833	1.539	1.503	1.026	0.805	0.473	0.473
65	3.291	2.624	2.278	2.081	2.037	2.009	2.006	1.753	1.718	1.101	0.874	0.473	0.473
70	3.450	2.748	2.368	2.156	2.110	2.080	2.076	1.967	1.932	1.176	0.944	0.473	0.473
75	3.790	2.872	2.457	2.232	2.183	2.151	2.147	2.047	2.036	1.270	1.013	0.574	0.473
80	4.222	2.996	2.547	2.308	2.255	2.221	2.217	2.108	2.097	1.584	1.082	0.684	0.473
85	-	3.121	2.636	2.384	2.328	2.292	2.288	2.170	2.157	1.898	1.151	0.794	0.473
90	-	3.245	2.726	2.459	2.401	2.363	2.358	2.232	2.218	2.027	1.220	0.904	0.473
95	-	3.369	2.815	2.535	2.473	2.433	2.429	2.294	2.279	2.076	1.408	1.014	0.497
100	-	3.494	2.905	2.611	2.546	2.504	2.499	2.356	2.340	2.125	1.666	1.124	0.628
105	-	4.049	2.994	2.686	2.619	2.575	2.569	2.418	2.400	2.174	1.924	1.234	0.760
110	-	-	3.084	2.762	2.692	2.646	2.640	2.480	2.461	2.224	2.022	1.364	0.891
115	-	-	3.173	2.838	2.764	2.716	2.710	2.542	2.522	2.273	2.062	1.498	1.022
120	-	-	3.263	2.914	2.837	2.787	2.781	2.604	2.583	2.322	2.103	1.631	1.153
125	-	-	3.352	2.989	2.910	2.858	2.851	2.665	2.644	2.372	2.144	1.764	1.274
130	-	-	3.442	3.065	2.982	2.928	2.921	2.727	2.704	2.421	2.184	1.897	1.372
135	-	-	4.017	3.141	3.055	2.999	2.992	2.789	2.765	2.470	2.225	2.003	1.470
140	-	-	-	3.217	3.128	3.070	3.062	2.851	2.826	2.520	2.265	2.043	1.567
145	-	-	-	3.292	3.200	3.140	3.133	2.913	2.887	2.569	2.306	2.082	1.665
150	-	-	-	3.368	3.273	3.211	3.203	2.975	2.947	2.618	2.347	2.121	1.763
155	-	-	-	3.444	3.346	3.282	3.274	3.037	3.008	2.668	2.387	2.160	1.861
160	-	-	-	3.610	3.419	3.352	3.344	3.099	3.069	2.717	2.428	2.199	1.959
165	-	-	-	4.101	3.491	3.423	3.414	3.161	3.130	2.766	2.468	2.238	2.019
170	-	-	-	4.592	3.825	3.494	3.485	3.222	3.190	2.816	2.509	2.277	2.059
175	-	-	-	-	4.209	3.797	3.751	3.284	3.251	2.865	2.550	2.317	2.100
180	-	-	-	-	4.592	4.136	4.085	3.346	3.312	2.914	2.590	2.356	2.141
185	-	-	-	-	4.976	4.474	4.419	3.408	3.373	2.964	2.631	2.395	2.181
190	-	-	-	-	-	4.812	4.753	3.470	3.433	3.013	2.671	2.434	2.222
195	-	-	-	-	-	-	-	3.635	3.494	3.062	2.712	2.473	2.262
200	-	-	-	-	-	-	-	3.918	3.744	3.112	2.752	2.512	2.303
205	-	-	-	-	-	-	-	4.201	4.026	3.161	2.793	2.552	2.344
210	-	-	-	-	-	-	-	4.483	4.308	3.210	2.834	2.591	2.384
215	-	-	-	-	-	-	-	4.766	4.590	3.260	2.874	2.630	2.425
220	-	-	-	-	-	-	-	-	4.871	3.309	2.915	2.669	2.465
225	-	-	-	-	-	-	-	-	-	3.358	2.955	2.708	2.506
230	-	-	-	-	-	-	-	-	-	3.408	2.996	2.747	2.547
235	-	-	-	-	-	-	-	-	-	3.457	3.037	2.786	2.587

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

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Smart Protection

Table 37: CHS - 4 Sided Columns
Fire Resistance Period: 75 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
240	-	-	-	-	-	-	-	-	-	3.518	3.077	2.826	2.628
245	-	-	-	-	-	-	-	-	-	3.740	3.118	2.865	2.668
250	-	-	-	-	-	-	-	-	-	3.962	3.158	2.904	2.709
255	-	-	-	-	-	-	-	-	-	4.183	3.199	2.943	2.750
260	-	-	-	-	-	-	-	-	-	4.405	3.240	2.982	2.790
265	-	-	-	-	-	-	-	-	-	4.627	3.280	3.021	2.831
270	-	-	-	-	-	-	-	-	-	4.849	3.321	3.061	2.871
275	-	-	-	-	-	-	-	-	-	5.071	3.361	3.100	2.912
280	-	-	-	-	-	-	-	-	-	-	3.402	3.139	2.953
285	-	-	-	-	-	-	-	-	-	-	3.442	3.178	2.993
290	-	-	-	-	-	-	-	-	-	-	3.483	3.217	3.034
295	-	-	-	-	-	-	-	-	-	-	3.591	3.256	3.074
300	-	-	-	-	-	-	-	-	-	-	3.765	3.296	3.115
305	-	-	-	-	-	-	-	-	-	-	3.939	3.335	3.156
310	-	-	-	-	-	-	-	-	-	-	4.113	3.374	3.196
315	-	-	-	-	-	-	-	-	-	-	4.288	3.413	3.237
320	-	-	-	-	-	-	-	-	-	-	4.462	3.452	3.277
325	-	-	-	-	-	-	-	-	-	-	4.636	3.491	3.318
330	-	-	-	-	-	-	-	-	-	-	4.810	3.601	3.359
335	-	-	-	-	-	-	-	-	-	-	-	3.740	3.399
340	-	-	-	-	-	-	-	-	-	-	-	3.880	3.440
345	-	-	-	-	-	-	-	-	-	-	-	4.019	3.480
350	-	-	-	-	-	-	-	-	-	-	-	4.159	3.535
355	-	-	-	-	-	-	-	-	-	-	-	4.298	3.606
360	-	-	-	-	-	-	-	-	-	-	-	4.437	3.677
365	-	-	-	-	-	-	-	-	-	-	-	4.577	3.748
370	-	-	-	-	-	-	-	-	-	-	-	4.716	3.819
375	-	-	-	-	-	-	-	-	-	-	-	4.856	3.889
380	-	-	-	-	-	-	-	-	-	-	-	4.995	3.960
385	-	-	-	-	-	-	-	-	-	-	-	-	4.031
390	-	-	-	-	-	-	-	-	-	-	-	-	4.102
395	-	-	-	-	-	-	-	-	-	-	-	-	4.173
400	-	-	-	-	-	-	-	-	-	-	-	-	4.244
405	-	-	-	-	-	-	-	-	-	-	-	-	4.315
410	-	-	-	-	-	-	-	-	-	-	-	-	4.386
415	-	-	-	-	-	-	-	-	-	-	-	-	4.457
420	-	-	-	-	-	-	-	-	-	-	-	-	4.528
425	-	-	-	-	-	-	-	-	-	-	-	-	4.599
430	-	-	-	-	-	-	-	-	-	-	-	-	4.670
435	-	-	-	-	-	-	-	-	-	-	-	-	4.741

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
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Table 38: CHS - 4 Sided Columns
Fire Resistance Period: 90 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	2.841	2.469	2.033	1.677	1.588	1.530	1.523	1.419	1.400	1.074	0.840	0.653	0.473
45	3.163	2.634	2.179	1.944	1.846	1.783	1.775	1.625	1.605	1.193	0.930	0.719	0.473
50	3.373	2.800	2.324	2.080	2.068	2.021	2.015	1.832	1.810	1.365	1.020	0.784	0.473
55	3.748	2.966	2.469	2.242	2.242	2.189	2.183	2.026	2.009	1.580	1.110	0.850	0.473
60	4.391	3.131	2.614	2.416	2.416	2.357	2.350	2.176	2.157	1.796	1.200	0.915	0.554
65	-	3.297	2.759	2.590	2.590	2.525	2.518	2.326	2.305	1.998	1.371	0.981	0.644
70	-	3.463	2.904	2.764	2.764	2.693	2.685	2.476	2.453	2.067	1.626	1.046	0.734
75	-	4.005	3.050	2.938	2.938	2.861	2.852	2.626	2.601	2.135	1.882	1.112	0.823
80	-	-	3.195	3.112	3.112	3.029	3.020	2.776	2.750	2.203	2.024	1.178	0.913
85	-	-	3.340	3.286	3.286	3.197	3.187	2.926	2.898	2.272	2.080	1.243	1.003
90	-	-	3.485	3.461	3.461	3.365	3.355	3.076	3.046	2.340	2.136	1.645	1.092
95	-	-	4.265	3.635	3.635	3.533	3.522	3.226	3.194	2.409	2.192	1.999	1.182
100	-	-	-	3.809	3.809	3.702	3.690	3.376	3.342	2.477	2.248	2.044	1.289
105	-	-	-	3.983	3.983	3.870	3.857	3.526	3.490	2.545	2.304	2.089	1.439
110	-	-	-	4.157	4.157	4.038	4.025	3.676	3.638	2.614	2.360	2.134	1.590
115	-	-	-	4.331	4.331	4.206	4.192	3.826	3.786	2.682	2.417	2.178	1.741
120	-	-	-	4.505	4.505	4.374	4.360	3.976	3.934	2.750	2.473	2.223	1.891
125	-	-	-	4.679	4.679	4.542	4.527	4.126	4.082	2.819	2.529	2.268	2.005
130	-	-	-	4.854	4.854	4.710	4.695	4.276	4.231	2.887	2.585	2.313	2.043
135	-	-	-	-	-	4.878	4.862	4.426	4.379	2.956	2.641	2.357	2.081
140	-	-	-	-	-	-	-	4.576	4.527	3.024	2.697	2.402	2.119
145	-	-	-	-	-	-	-	4.726	4.675	3.092	2.753	2.447	2.157
150	-	-	-	-	-	-	-	4.876	4.823	3.161	2.809	2.492	2.195
155	-	-	-	-	-	-	-	5.026	4.971	3.229	2.865	2.536	2.233
160	-	-	-	-	-	-	-	-	-	3.298	2.921	2.581	2.271
165	-	-	-	-	-	-	-	-	-	3.366	2.978	2.626	2.309
170	-	-	-	-	-	-	-	-	-	3.434	3.034	2.671	2.347
175	-	-	-	-	-	-	-	-	-	3.503	3.090	2.715	2.386
180	-	-	-	-	-	-	-	-	-	3.571	3.146	2.760	2.424
185	-	-	-	-	-	-	-	-	-	3.639	3.202	2.805	2.462
190	-	-	-	-	-	-	-	-	-	3.708	3.258	2.850	2.500
195	-	-	-	-	-	-	-	-	-	3.776	3.314	2.894	2.538
200	-	-	-	-	-	-	-	-	-	-	3.370	2.939	2.576
205	-	-	-	-	-	-	-	-	-	-	3.426	2.984	2.614
210	-	-	-	-	-	-	-	-	-	-	3.482	3.029	2.652
215	-	-	-	-	-	-	-	-	-	-	3.766	3.073	2.690
220	-	-	-	-	-	-	-	-	-	-	4.182	3.118	2.728
225	-	-	-	-	-	-	-	-	-	-	4.598	3.163	2.767
230	-	-	-	-	-	-	-	-	-	-	5.013	3.208	2.805
235	-	-	-	-	-	-	-	-	-	-	-	3.252	2.843

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



SC901 & SC902

Loading Tables

Nullifire
Smart Protection

Table 38: CHS - 4 Sided Columns
Fire Resistance Period: 90 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
240	-	-	-	-	-	-	-	-	-	-	-	3.297	2.881
245	-	-	-	-	-	-	-	-	-	-	-	3.342	2.919
250	-	-	-	-	-	-	-	-	-	-	-	3.387	2.957
255	-	-	-	-	-	-	-	-	-	-	-	3.431	2.995
260	-	-	-	-	-	-	-	-	-	-	-	3.476	3.033
265	-	-	-	-	-	-	-	-	-	-	-	3.577	3.071
270	-	-	-	-	-	-	-	-	-	-	-	3.764	3.109
275	-	-	-	-	-	-	-	-	-	-	-	3.951	3.148
280	-	-	-	-	-	-	-	-	-	-	-	4.137	3.186
285	-	-	-	-	-	-	-	-	-	-	-	4.324	3.224
290	-	-	-	-	-	-	-	-	-	-	-	4.511	3.262
295	-	-	-	-	-	-	-	-	-	-	-	4.697	3.300
300	-	-	-	-	-	-	-	-	-	-	-	4.884	3.338
305	-	-	-	-	-	-	-	-	-	-	-	-	3.376
310	-	-	-	-	-	-	-	-	-	-	-	-	3.414
315	-	-	-	-	-	-	-	-	-	-	-	-	3.452
320	-	-	-	-	-	-	-	-	-	-	-	-	3.490
325	-	-	-	-	-	-	-	-	-	-	-	-	3.638
330	-	-	-	-	-	-	-	-	-	-	-	-	3.839
335	-	-	-	-	-	-	-	-	-	-	-	-	4.041
340	-	-	-	-	-	-	-	-	-	-	-	-	4.242
345	-	-	-	-	-	-	-	-	-	-	-	-	4.444
350	-	-	-	-	-	-	-	-	-	-	-	-	4.645
355	-	-	-	-	-	-	-	-	-	-	-	-	4.847
360	-	-	-	-	-	-	-	-	-	-	-	-	-
365	-	-	-	-	-	-	-	-	-	-	-	-	-
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-
385	-	-	-	-	-	-	-	-	-	-	-	-	-
390	-	-	-	-	-	-	-	-	-	-	-	-	-
395	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-
405	-	-	-	-	-	-	-	-	-	-	-	-	-
410	-	-	-	-	-	-	-	-	-	-	-	-	-
415	-	-	-	-	-	-	-	-	-	-	-	-	-
420	-	-	-	-	-	-	-	-	-	-	-	-	-
425	-	-	-	-	-	-	-	-	-	-	-	-	-
430	-	-	-	-	-	-	-	-	-	-	-	-	-
435	-	-	-	-	-	-	-	-	-	-	-	-	-

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 39: CHS - 4 Sided Columns
Fire Resistance Period: IO5 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	3.153	2.756	2.475	2.158	2.023	1.993	1.989	1.783	1.762	1.421	1.139	0.904	0.666
45	3.994	3.074	2.655	2.308	2.172	2.135	2.131	2.027	2.017	1.661	1.282	1.002	0.741
50	-	3.285	2.834	2.458	2.321	2.278	2.273	2.148	2.136	1.917	1.510	1.100	0.817
55	-	3.495	3.014	2.608	2.470	2.420	2.414	2.270	2.255	2.111	1.738	1.198	0.892
60	-	4.223	3.194	2.757	2.619	2.563	2.556	2.392	2.375	2.279	1.967	1.374	0.967
65	-	-	3.373	2.907	2.768	2.705	2.698	2.513	2.494	2.448	2.110	1.623	1.043
70	-	-	3.726	3.057	2.917	2.848	2.839	2.635	2.616	2.616	2.243	1.872	1.118
75	-	-	4.525	3.207	3.066	2.991	2.981	2.785	2.785	2.785	2.376	2.023	1.193
80	-	-	-	3.356	3.215	3.133	3.123	2.953	2.953	2.953	2.509	2.083	1.328
85	-	-	-	3.526	3.364	3.276	3.265	3.122	3.122	3.122	2.642	2.143	1.602
90	-	-	-	4.624	3.594	3.418	3.406	3.291	3.291	3.291	2.775	2.203	1.875
95	-	-	-	-	3.823	4.095	3.984	3.459	3.459	3.459	2.907	2.263	2.022
100	-	-	-	-	-	-	-	3.628	3.628	3.628	3.040	2.323	2.073
105	-	-	-	-	-	-	-	3.796	3.796	3.796	3.173	2.383	2.125
110	-	-	-	-	-	-	-	3.965	3.965	3.965	3.306	2.443	2.177
115	-	-	-	-	-	-	-	4.133	4.133	4.133	3.439	2.503	2.229
120	-	-	-	-	-	-	-	-	-	4.302	3.572	2.563	2.281
125	-	-	-	-	-	-	-	-	-	4.470	3.705	2.623	2.333
130	-	-	-	-	-	-	-	-	-	4.639	3.837	2.683	2.384
135	-	-	-	-	-	-	-	-	-	4.807	3.970	2.743	2.436
140	-	-	-	-	-	-	-	-	-	-	4.103	2.803	2.488
145	-	-	-	-	-	-	-	-	-	-	4.236	2.863	2.540
150	-	-	-	-	-	-	-	-	-	-	4.369	2.922	2.592
155	-	-	-	-	-	-	-	-	-	-	4.502	2.982	2.644
160	-	-	-	-	-	-	-	-	-	-	4.635	3.042	2.695
165	-	-	-	-	-	-	-	-	-	-	4.767	3.102	2.747
170	-	-	-	-	-	-	-	-	-	-	4.900	3.162	2.799
175	-	-	-	-	-	-	-	-	-	-	-	3.222	2.851
180	-	-	-	-	-	-	-	-	-	-	-	3.282	2.903
185	-	-	-	-	-	-	-	-	-	-	-	3.342	2.954
190	-	-	-	-	-	-	-	-	-	-	-	3.402	3.006
195	-	-	-	-	-	-	-	-	-	-	-	3.462	3.058
200	-	-	-	-	-	-	-	-	-	-	-	3.522	3.110
205	-	-	-	-	-	-	-	-	-	-	-	3.582	3.162
210	-	-	-	-	-	-	-	-	-	-	-	3.642	3.214
215	-	-	-	-	-	-	-	-	-	-	-	3.702	3.265
220	-	-	-	-	-	-	-	-	-	-	-	3.762	3.317
225	-	-	-	-	-	-	-	-	-	-	-	-	3.369
230	-	-	-	-	-	-	-	-	-	-	-	-	3.421
235	-	-	-	-	-	-	-	-	-	-	-	-	3.473

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 39: CHS - 4 Sided Columns
Fire Resistance Period: 105 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
240	-	-	-	-	-	-	-	-	-	-	-	-	3.574
245	-	-	-	-	-	-	-	-	-	-	-	-	3.745
250	-	-	-	-	-	-	-	-	-	-	-	-	3.916
255	-	-	-	-	-	-	-	-	-	-	-	-	4.087
260	-	-	-	-	-	-	-	-	-	-	-	-	4.258
265	-	-	-	-	-	-	-	-	-	-	-	-	4.429
270	-	-	-	-	-	-	-	-	-	-	-	-	4.600
275	-	-	-	-	-	-	-	-	-	-	-	-	4.771
280	-	-	-	-	-	-	-	-	-	-	-	-	4.943
285	-	-	-	-	-	-	-	-	-	-	-	-	-
290	-	-	-	-	-	-	-	-	-	-	-	-	-
295	-	-	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-	-	-
305	-	-	-	-	-	-	-	-	-	-	-	-	-
310	-	-	-	-	-	-	-	-	-	-	-	-	-
315	-	-	-	-	-	-	-	-	-	-	-	-	-
320	-	-	-	-	-	-	-	-	-	-	-	-	-
325	-	-	-	-	-	-	-	-	-	-	-	-	-
330	-	-	-	-	-	-	-	-	-	-	-	-	-
335	-	-	-	-	-	-	-	-	-	-	-	-	-
340	-	-	-	-	-	-	-	-	-	-	-	-	-
345	-	-	-	-	-	-	-	-	-	-	-	-	-
350	-	-	-	-	-	-	-	-	-	-	-	-	-
355	-	-	-	-	-	-	-	-	-	-	-	-	-
360	-	-	-	-	-	-	-	-	-	-	-	-	-
365	-	-	-	-	-	-	-	-	-	-	-	-	-
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-
385	-	-	-	-	-	-	-	-	-	-	-	-	-
390	-	-	-	-	-	-	-	-	-	-	-	-	-
395	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-
405	-	-	-	-	-	-	-	-	-	-	-	-	-
410	-	-	-	-	-	-	-	-	-	-	-	-	-
415	-	-	-	-	-	-	-	-	-	-	-	-	-
420	-	-	-	-	-	-	-	-	-	-	-	-	-
425	-	-	-	-	-	-	-	-	-	-	-	-	-
430	-	-	-	-	-	-	-	-	-	-	-	-	-
435	-	-	-	-	-	-	-	-	-	-	-	-	-

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 40: CHS - 4 Sided Columns
Fire Resistance Period: 120 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	-	3.153	2.735	2.493	2.417	2.367	2.361	2.208	2.191	1.867	1.470	1.121	0.883
45	-	3.495	3.054	2.680	2.596	2.541	2.535	2.365	2.346	2.089	1.725	1.335	0.990
50	-	4.341	3.274	2.867	2.776	2.716	2.708	2.522	2.502	2.312	1.998	1.573	1.097
55	-	-	3.494	3.055	2.955	2.890	2.882	2.679	2.657	2.534	2.177	1.811	1.204
60	-	-	4.266	3.242	3.134	3.064	3.056	2.836	2.812	2.756	2.355	2.026	1.383
65	-	-	-	3.430	3.314	3.239	3.229	2.994	2.978	2.978	2.533	2.172	1.608
70	-	-	-	4.026	3.493	3.413	3.403	3.201	3.201	3.201	2.711	2.317	1.833
75	-	-	-	-	4.376	3.972	3.919	3.423	3.423	3.423	2.890	2.462	2.026
80	-	-	-	-	-	-	-	3.645	3.645	3.645	3.068	2.607	2.142
85	-	-	-	-	-	-	-	4.583	4.332	3.867	3.246	2.752	2.258
90	-	-	-	-	-	-	-	-	-	4.090	3.425	2.897	2.374
95	-	-	-	-	-	-	-	-	-	4.312	3.603	3.042	2.490
100	-	-	-	-	-	-	-	-	-	4.534	3.781	3.187	2.606
105	-	-	-	-	-	-	-	-	-	4.756	3.959	3.332	2.722
110	-	-	-	-	-	-	-	-	-	4.979	4.138	3.477	2.838
115	-	-	-	-	-	-	-	-	-	-	4.316	3.622	2.954
120	-	-	-	-	-	-	-	-	-	-	4.494	3.767	3.070
125	-	-	-	-	-	-	-	-	-	-	4.673	3.912	3.186
130	-	-	-	-	-	-	-	-	-	-	4.851	4.057	3.303
135	-	-	-	-	-	-	-	-	-	-	-	4.202	3.419
140	-	-	-	-	-	-	-	-	-	-	-	4.347	3.535
145	-	-	-	-	-	-	-	-	-	-	-	4.492	3.651
150	-	-	-	-	-	-	-	-	-	-	-	4.637	3.767
155	-	-	-	-	-	-	-	-	-	-	-	4.782	3.883
160	-	-	-	-	-	-	-	-	-	-	-	4.927	3.999
165	-	-	-	-	-	-	-	-	-	-	-	-	4.115
170	-	-	-	-	-	-	-	-	-	-	-	-	4.231
175	-	-	-	-	-	-	-	-	-	-	-	-	4.347
180	-	-	-	-	-	-	-	-	-	-	-	-	4.463
185	-	-	-	-	-	-	-	-	-	-	-	-	4.579
190	-	-	-	-	-	-	-	-	-	-	-	-	4.695
195	-	-	-	-	-	-	-	-	-	-	-	-	4.811
200	-	-	-	-	-	-	-	-	-	-	-	-	4.927
205	-	-	-	-	-	-	-	-	-	-	-	-	-
210	-	-	-	-	-	-	-	-	-	-	-	-	-
215	-	-	-	-	-	-	-	-	-	-	-	-	-
220	-	-	-	-	-	-	-	-	-	-	-	-	-
225	-	-	-	-	-	-	-	-	-	-	-	-	-
230	-	-	-	-	-	-	-	-	-	-	-	-	-
235	-	-	-	-	-	-	-	-	-	-	-	-	-

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.



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Loading Tables

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Table 40: CHS - 4 Sided Columns
Fire Resistance Period: 120 Minutes

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	350°C	400°C	450°C	500°C	512°C	520°C	521°C	547°C	550°C	600°C	650°C	700°C	750°C
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
240	-	-	-	-	-	-	-	-	-	-	-	-	-
245	-	-	-	-	-	-	-	-	-	-	-	-	-
250	-	-	-	-	-	-	-	-	-	-	-	-	-
255	-	-	-	-	-	-	-	-	-	-	-	-	-
260	-	-	-	-	-	-	-	-	-	-	-	-	-
265	-	-	-	-	-	-	-	-	-	-	-	-	-
270	-	-	-	-	-	-	-	-	-	-	-	-	-
275	-	-	-	-	-	-	-	-	-	-	-	-	-
280	-	-	-	-	-	-	-	-	-	-	-	-	-
285	-	-	-	-	-	-	-	-	-	-	-	-	-
290	-	-	-	-	-	-	-	-	-	-	-	-	-
295	-	-	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-	-	-
305	-	-	-	-	-	-	-	-	-	-	-	-	-
310	-	-	-	-	-	-	-	-	-	-	-	-	-
315	-	-	-	-	-	-	-	-	-	-	-	-	-
320	-	-	-	-	-	-	-	-	-	-	-	-	-
325	-	-	-	-	-	-	-	-	-	-	-	-	-
330	-	-	-	-	-	-	-	-	-	-	-	-	-
335	-	-	-	-	-	-	-	-	-	-	-	-	-
340	-	-	-	-	-	-	-	-	-	-	-	-	-
345	-	-	-	-	-	-	-	-	-	-	-	-	-
350	-	-	-	-	-	-	-	-	-	-	-	-	-
355	-	-	-	-	-	-	-	-	-	-	-	-	-
360	-	-	-	-	-	-	-	-	-	-	-	-	-
365	-	-	-	-	-	-	-	-	-	-	-	-	-
370	-	-	-	-	-	-	-	-	-	-	-	-	-
375	-	-	-	-	-	-	-	-	-	-	-	-	-
380	-	-	-	-	-	-	-	-	-	-	-	-	-
385	-	-	-	-	-	-	-	-	-	-	-	-	-
390	-	-	-	-	-	-	-	-	-	-	-	-	-
395	-	-	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-
405	-	-	-	-	-	-	-	-	-	-	-	-	-
410	-	-	-	-	-	-	-	-	-	-	-	-	-
415	-	-	-	-	-	-	-	-	-	-	-	-	-
420	-	-	-	-	-	-	-	-	-	-	-	-	-
425	-	-	-	-	-	-	-	-	-	-	-	-	-
430	-	-	-	-	-	-	-	-	-	-	-	-	-
435	-	-	-	-	-	-	-	-	-	-	-	-	-

Please consult the ASFP Yellow Book for the correct critical temperature in line with the building occupancy as well as structural steel geometry and usage.