



# SC901 & SC902

## Loading Tables

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### I/H Sections - 3-Sided Beams: Critical Temperature: 620°C

Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes	Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.460	0.460	0.771	1.210	205	0.460	0.981	2.055	3.758
60	0.460	0.467	0.851	1.297	210	0.460	0.999	2.113	3.809
65	0.460	0.485	0.931	1.364	215	0.460	1.016	2.172	3.861
70	0.460	0.502	1.011	1.432	220	0.460	1.034	2.230	3.913
75	0.460	0.520	1.091	1.499	225	0.460	1.052	2.289	3.964
80	0.460	0.538	1.171	1.566	230	0.460	1.070	2.347	4.016
85	0.460	0.556	1.251	1.634	235	0.460	1.087	2.405	4.068
90	0.460	0.573	1.284	1.701	240	0.460	1.105	2.464	4.119
95	0.460	0.591	1.316	1.769	245	0.460	1.123	2.522	4.171
100	0.460	0.609	1.348	1.836	250	0.460	1.141	2.581	4.222
105	0.460	0.627	1.380	1.903	255	0.460	1.158	2.639	4.274
110	0.460	0.644	1.412	1.971	260	0.460	1.176	2.698	4.326
115	0.460	0.662	1.444	2.077	265	0.460	1.194	2.756	4.377
120	0.460	0.680	1.475	2.185	270	0.460	1.211	2.815	4.429
125	0.460	0.697	1.507	2.292	275	0.460	1.229	2.873	4.481
130	0.460	0.715	1.539	2.400	280	0.460	1.247	2.932	4.532
135	0.460	0.733	1.571	2.508	285	0.460	1.290	2.990	4.584
140	0.460	0.751	1.603	2.616	290	0.460	1.345	3.049	4.635
145	0.460	0.768	1.635	2.723	295	0.460	1.401	3.107	4.687
150	0.460	0.786	1.667	2.831	300	0.460	1.456	3.166	4.739
155	0.460	0.804	1.699	2.939	305	0.460	1.512	3.224	4.790
160	0.460	0.821	1.731	3.047	310	0.465	1.568	3.283	4.842
165	0.460	0.839	1.763	3.154	315	0.477	1.623	3.341	4.894
170	0.460	0.857	1.795	3.262	320	0.489	1.679	3.399	4.945
175	0.460	0.875	1.826	3.370	325	0.501	1.734	3.458	4.997
180	0.460	0.892	1.858	3.478	330	0.512	1.790	3.516	-
185	0.460	0.910	1.890	3.551	335	0.524	1.846	3.668	-
190	0.460	0.928	1.922	3.603	340	0.536	1.901	3.826	-
195	0.460	0.946	1.954	3.655	345	0.548	1.957	3.984	-
200	0.460	0.963	1.996	3.706	350	0.560	2.005	4.143	-

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PLEASE NOTE: The critical temperatures in this loading table are as defined for offices in accordance with BS5950-8:2003 as per Table 18 of the ASFP 5th Edition Yellow Book. The Yellow book also gives new critical temperatures to comply with several different building uses either to the Eurocodes for steel design or BS5950-8:2003. Alternative loadings tables to other critical temperatures are available from the Nullifire Technical Desk on request. CHS & RHS range up to 435 m-1 - Ask Technical Support



# SC901 & SC902

## Loading Tables

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### I/H Sections - 4-Sided Columns: Critical Temperature: 550°C

Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes	Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.459	0.459	0.867	2.480	205	0.459	1.077	2.271	4.553
60	0.459	0.497	0.908	2.480	210	0.459	1.097	2.345	4.634
65	0.459	0.517	0.949	2.480	215	0.459	1.117	2.418	4.716
70	0.459	0.537	0.990	2.480	220	0.459	1.137	2.492	4.797
75	0.459	0.557	1.031	2.480	225	0.459	1.157	2.565	4.879
80	0.459	0.577	1.072	2.480	230	0.459	1.177	2.639	4.960
85	0.459	0.597	1.113	2.480	235	0.459	1.197	2.713	5.042
90	0.459	0.617	1.154	2.650	240	0.459	1.217	2.786	5.124
95	0.459	0.637	1.195	2.734	245	0.463	1.237	2.860	5.205
100	0.459	0.657	1.236	2.818	250	0.476	1.268	2.933	5.287
105	0.459	0.677	1.280	2.902	255	0.489	1.324	3.007	-
110	0.459	0.697	1.324	2.986	260	0.502	1.379	3.080	-
115	0.459	0.717	1.368	3.070	265	0.515	1.434	3.154	-
120	0.459	0.737	1.413	3.154	270	0.528	1.489	3.228	-
125	0.459	0.757	1.457	3.238	275	0.541	1.545	3.301	-
130	0.459	0.777	1.502	3.323	280	0.554	1.600	3.375	-
135	0.459	0.797	1.546	3.407	285	0.567	1.655	3.448	-
140	0.459	0.817	1.590	3.491	290	0.580	1.710	3.522	-
145	0.459	0.837	1.635	3.573	295	0.593	1.765	3.623	-
150	0.459	0.857	1.679	3.655	300	0.606	1.821	3.729	-
155	0.459	0.877	1.723	3.737	305	0.619	1.876	3.835	-
160	0.459	0.897	1.768	3.818	310	0.632	1.931	3.941	-
165	0.459	0.917	1.812	3.900	315	0.645	1.986	4.047	-
170	0.459	0.937	1.856	3.981	320	0.658	2.038	4.153	-
175	0.459	0.957	1.901	4.063	325	0.671	2.088	4.259	-
180	0.459	0.977	1.945	4.145	330	0.683	2.138	4.364	-
185	0.459	0.997	1.989	4.226	335	0.696	2.187	4.470	-
190	0.459	1.017	2.051	4.308	340	0.709	2.237	4.576	-
195	0.459	1.037	2.124	4.389	345	0.722	2.287	4.682	-
200	0.459	1.057	2.198	4.471	350	0.735	2.337	4.788	-

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# SC901 & SC902

## Loading Tables

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### I/H Sections - 4-Sided Beams: Critical Temperature: 550°C

Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes	Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
55	0.459	0.459	0.867	2.480	205	0.459	1.077	2.271	4.553
60	0.459	0.497	0.908	2.480	210	0.459	1.097	2.345	4.634
65	0.459	0.517	0.949	2.480	215	0.459	1.117	2.418	4.716
70	0.459	0.537	0.990	2.480	220	0.459	1.137	2.492	4.797
75	0.459	0.557	1.031	2.480	225	0.459	1.157	2.565	4.879
80	0.459	0.577	1.072	2.480	230	0.459	1.177	2.639	4.960
85	0.459	0.597	1.113	2.480	235	0.459	1.197	2.713	5.042
90	0.459	0.617	1.154	2.650	240	0.459	1.217	2.786	5.124
95	0.459	0.637	1.195	2.734	245	0.463	1.237	2.860	5.205
100	0.459	0.657	1.236	2.818	250	0.476	1.268	2.933	5.287
105	0.459	0.677	1.280	2.902	255	0.489	1.324	3.007	-
110	0.459	0.697	1.324	2.986	260	0.502	1.379	3.080	-
115	0.459	0.717	1.368	3.070	265	0.515	1.434	3.154	-
120	0.459	0.737	1.413	3.154	270	0.528	1.489	3.228	-
125	0.459	0.757	1.457	3.238	275	0.541	1.545	3.301	-
130	0.459	0.777	1.502	3.323	280	0.554	1.600	3.375	-
135	0.459	0.797	1.546	3.407	285	0.567	1.655	3.448	-
140	0.459	0.817	1.590	3.491	290	0.580	1.710	3.522	-
145	0.459	0.837	1.635	3.573	295	0.593	1.765	3.623	-
150	0.459	0.857	1.679	3.655	300	0.606	1.821	3.729	-
155	0.459	0.877	1.723	3.737	305	0.619	1.876	3.835	-
160	0.459	0.897	1.768	3.818	310	0.632	1.931	3.941	-
165	0.459	0.917	1.812	3.900	315	0.645	1.986	4.047	-
170	0.459	0.937	1.856	3.981	320	0.658	2.038	4.153	-
175	0.459	0.957	1.901	4.063	325	0.671	2.088	4.259	-
180	0.459	0.977	1.945	4.145	330	0.683	2.138	4.364	-
185	0.459	0.997	1.989	4.226	335	0.696	2.187	4.470	-
190	0.459	1.017	2.051	4.308	340	0.709	2.237	4.576	-
195	0.459	1.037	2.124	4.389	345	0.722	2.287	4.682	-
200	0.459	1.057	2.198	4.471	350	0.735	2.337	4.788	-

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PLEASE NOTE: The critical temperatures in this loading table are as defined for offices in accordance with BS5950-8:2003 as per Table 18 of the ASFP 5th Edition Yellow Book. The Yellow book also gives new critical temperatures to comply with several different building uses either to the Eurocodes for steel design or BS5950-8:2003. Alternative loadings tables to other critical temperatures are available from the Nullifire Technical Desk on request. CHS & RHS range up to 435 m-1 - Ask Technical Support



# SC901 & SC902 Loading Tables

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## RHS/SHS - 4-Sided Columns: Critical Temperature: 520°C (meshed)

Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes	Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
50	0.868	0.868	2.292	3.025	230	0.868	5.270	-	-
55	0.868	0.868	2.457	3.703	235	0.868	5.298	-	-
60	0.868	0.868	2.543	4.095	240	1.021	5.325	-	-
65	0.868	0.868	2.630	4.260	245	1.234	5.352	-	-
70	0.868	0.868	2.716	4.426	250	1.446	5.379	-	-
75	0.868	0.868	2.802	4.591	255	1.658	5.407	-	-
80	0.868	1.112	2.888	4.756	260	1.871	5.434	-	-
85	0.868	1.360	2.975	4.921	265	2.083	5.461	-	-
90	0.868	1.607	3.082	5.086	270	2.296	5.488	-	-
95	0.868	1.855	3.278	5.587	275	2.508	5.516	-	-
100	0.868	2.103	3.474	6.087	280	2.720	5.543	-	-
105	0.868	2.276	3.671	-	285	2.933	5.570	-	-
110	0.868	2.398	3.867	-	290	3.066	5.597	-	-
115	0.868	2.521	4.055	-	295	3.113	5.633	-	-
120	0.868	2.643	4.227	-	300	3.159	5.682	-	-
125	0.868	2.766	4.424	-	305	3.205	5.730	-	-
130	0.868	2.888	4.847	-	310	3.251	5.778	-	-
135	0.868	3.011	5.120	-	315	3.297	5.827	-	-
140	0.868	3.100	5.175	-	320	3.343	5.875	-	-
145	0.868	3.177	5.231	-	325	3.390	5.924	-	-
150	0.868	3.254	5.286	-	330	3.436	5.972	-	-
155	0.868	3.367	5.342	-	335	3.482	6.021	-	-
160	0.868	3.567	5.427	-	340	3.528	6.069	-	-
165	0.868	3.767	5.539	-	345	3.574	6.117	-	-
170	0.868	3.967	5.651	-	350	3.669	6.166	-	-
175	0.868	4.167	5.763	-	355	3.764	-	-	-
180	0.868	4.367	5.875	-	360	3.858	-	-	-
185	0.868	4.567	5.987	-	365	3.953	-	-	-
190	0.868	4.767	6.099	-	370	4.048	-	-	-
195	0.868	4.967	6.211	-	375	4.143	-	-	-
200	0.868	5.107	-	-	380	4.237	-	-	-
205	0.868	5.134	-	-	385	4.332	-	-	-
210	0.868	5.161	-	-	390	4.427	-	-	-
215	0.868	5.189	-	-	395	4.521	-	-	-
220	0.868	5.216	-	-	400	4.616	-	-	-
225	0.868	5.243	-	-	405	4.711	-	-	-

- 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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### CHS - 4-Sided Columns: Critical Temperature: 520°C (no mesh)

Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes	Section Factor up to m <sup>1</sup>	30 minutes	60 minutes	90 minutes	120 minutes
	DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)	DFT (mm)	DFT (mm)
40	0.473	0.666	1.523	2.363	240	1.234	3.404	-	-
45	0.473	0.742	1.776	2.542	245	1.280	3.451	-	-
50	0.473	0.818	2.009	2.722	250	1.338	3.498	-	-
55	0.473	0.895	2.106	2.902	255	1.396	3.609	-	-
60	0.473	0.971	2.204	3.082	260	1.454	3.729	-	-
65	0.473	1.047	2.330	3.262	265	1.512	3.849	-	-
70	0.473	1.123	2.480	3.442	270	1.570	3.969	-	-
75	0.473	1.199	2.630	4.057	275	1.628	4.088	-	-
80	0.473	1.370	2.780	-	280	1.686	4.208	-	-
85	0.473	1.715	2.931	-	285	1.744	4.328	-	-
90	0.473	2.002	3.081	-	290	1.802	4.448	-	-
95	0.473	2.048	3.231	-	295	1.860	4.568	-	-
100	0.473	2.095	3.381	-	300	1.918	4.687	-	-
105	0.473	2.142	3.531	-	305	1.976	4.807	-	-
110	0.473	2.189	3.681	-	310	2.022	4.927	-	-
115	0.482	2.235	3.831	-	315	2.062	-	-	-
120	0.512	2.282	3.982	-	320	2.103	-	-	-
125	0.542	2.329	4.132	-	325	2.143	-	-	-
130	0.572	2.376	4.282	-	330	2.184	-	-	-
135	0.603	2.422	4.432	-	335	2.224	-	-	-
140	0.633	2.469	4.432	-	340	2.265	-	-	-
145	0.663	2.516	-	-	345	2.305	-	-	-
150	0.693	2.563	-	-	350	2.346	-	-	-
155	0.723	2.609	-	-	355	2.387	-	-	-
160	0.753	2.656	-	-	360	2.427	-	-	-
165	0.783	2.703	-	-	365	2.468	-	-	-
170	0.813	2.750	-	-	370	2.508	-	-	-
175	0.843	2.796	-	-	375	2.549	-	-	-
180	0.873	2.843	-	-	380	2.589	-	-	-
185	0.903	2.890	-	-	385	2.630	-	-	-
190	0.933	2.937	-	-	390	2.670	-	-	-
195	0.964	2.984	-	-	395	2.711	-	-	-
200	0.994	3.030	-	-	400	2.751	-	-	-
205	1.024	3.077	-	-	405	2.792	-	-	-
210	1.054	3.124	-	-	410	2.833	-	-	-
215	1.084	3.171	-	-	415	2.873	-	-	-
220	1.114	3.217	-	-	420	2.914	-	-	-
225	1.144	3.264	-	-	425	2.954	-	-	-
230	1.174	3.311	-	-	430	2.995	-	-	-
235	1.204	3.358	-	-	435	3.035	-	-	-
225	0.868	5.243	-	-					

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