



SC802

Loading Tables

Nullifire
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3 Sided I/H Beams: Critical Temperature: 620°C

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	30 minutes	60 minutes	Section Factor up to m ¹	30 minutes	60 minutes
	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)
30	0.181	0.181	190	0.181	0.333
35	0.181	0.181	195	0.181	0.339
40	0.181	0.181	200	0.181	0.345
45	0.181	0.181	205	0.181	0.351
50	0.181	0.181	210	0.181	0.357
55	0.181	0.181	215	0.181	0.363
60	0.181	0.181	220	0.181	0.369
65	0.181	0.185	225	0.181	0.375
70	0.181	0.191	230	0.181	0.381
75	0.181	0.197	235	0.181	0.387
80	0.181	0.203	240	0.181	0.393
85	0.181	0.208	245	0.183	0.399
90	0.181	0.214	250	0.186	0.404
95	0.181	0.220	255	0.189	0.410
100	0.181	0.226	260	0.192	0.416
105	0.181	0.232	265	0.195	0.422
110	0.181	0.238	270	0.198	0.429
115	0.181	0.244	275	0.201	0.440
120	0.181	0.250	280	0.204	0.450
125	0.181	0.256	285	0.207	0.460
130	0.181	0.262	290	0.210	0.471
135	0.181	0.268	295	0.213	0.481
140	0.181	0.274	300	0.216	0.492
145	0.181	0.280	305	0.219	0.502
150	0.181	0.286	310	0.223	0.513
155	0.181	0.292	315	0.226	0.523
160	0.181	0.298	320	0.229	0.534
165	0.181	0.304	325	0.232	0.544
170	0.181	0.309	330	0.235	0.554
175	0.181	0.315	335	0.238	0.565
180	0.181	0.321	340	0.241	0.575
185	0.181	0.327			

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.



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4 Sided I/H Columns: Critical Temperature: 550°C Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	30 minutes	60 minutes	90 minutes	Section Factor up to m ¹	30 minutes	60 minutes	90 minutes
	DFT (mm)	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)	DFT (mm)
30	0.160	0.160	0.446	205	0.209	0.417	-
35	0.160	0.187	0.469	210	0.212	0.428	-
40	0.160	0.193	0.493	215	0.215	0.445	-
45	0.160	0.200	0.516	220	0.218	0.462	-
50	0.160	0.207	0.539	225	0.222	0.479	-
55	0.160	0.214	0.562	230	0.225	0.496	-
60	0.160	0.221	0.586	235	0.228	0.513	-
65	0.160	0.227	0.609	240	0.231	0.530	-
70	0.160	0.234	0.632	245	0.235	0.547	-
75	0.160	0.241	0.655	250	0.238	0.564	-
80	0.160	0.248	0.679	255	0.241	0.581	-
85	0.160	0.254	-	260	0.244	0.598	-
90	0.160	0.261	-	265	0.247	0.615	-
95	0.160	0.268	-	270	0.251	0.632	-
100	0.160	0.275	-	275	0.254	0.649	-
105	0.160	0.282	-	280	0.257	0.666	-
110	0.160	0.288	-	285	0.260	0.683	-
115	0.160	0.295	-	290	0.264	-	-
120	0.160	0.302	-	295	0.267	-	-
125	0.160	0.309	-	300	0.270	-	-
130	0.160	0.315	-	305	0.273	-	-
135	0.164	0.322	-	310	0.277	-	-
140	0.167	0.329	-	315	0.280	-	-
145	0.170	0.336	-	320	0.283	-	-
150	0.173	0.343	-	325	0.286	-	-
155	0.176	0.349	-	330	0.289	-	-
160	0.180	0.356	-	335	0.293	-	-
165	0.183	0.363	-	340	0.296	-	-
170	0.186	0.370	-	345	0.299	-	-
175	0.189	0.376	-	350	0.302	-	-
180	0.193	0.383	-	355	0.306	-	-
185	0.196	0.390	-	360	0.309	-	-
190	0.199	0.397	-	365	0.312	-	-
195	0.202	0.404	-	370	0.315	-	-
200	0.206	0.410	-	375	0.319	-	-

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.



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4 Sided I/H Beams: Critical Temperature: 550°C Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	30 minutes	60 minutes	Section Factor up to m ¹	30 minutes	60 minutes
	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)
30	0.160	0.160	205	0.209	0.417
35	0.160	0.187	210	0.212	0.428
40	0.160	0.193	215	0.215	0.445
45	0.160	0.200	220	0.218	0.462
50	0.160	0.207	225	0.222	0.479
55	0.160	0.214	230	0.225	0.496
60	0.160	0.221	235	0.228	0.513
65	0.160	0.227	240	0.231	0.530
70	0.160	0.234	245	0.235	0.547
75	0.160	0.241	250	0.238	0.564
80	0.160	0.248	255	0.241	0.581
85	0.160	0.254	260	0.244	0.598
90	0.160	0.261	265	0.247	0.615
95	0.160	0.268	270	0.251	0.632
100	0.160	0.275	275	0.254	-
105	0.160	0.282	280	0.257	-
110	0.160	0.288	285	0.260	-
115	0.160	0.295	290	0.264	-
120	0.160	0.302	295	0.267	-
125	0.160	0.309	300	0.270	-
130	0.160	0.315	305	0.273	-
135	0.164	0.322	310	0.277	-
140	0.167	0.329	315	0.280	-
145	0.170	0.336	320	0.283	-
150	0.173	0.343	325	0.286	-
155	0.176	0.349	330	0.289	-
160	0.180	0.356	335	0.293	-
165	0.183	0.363	340	0.296	-
170	0.186	0.370	345	0.299	-
175	0.189	0.376	350	0.302	-
180	0.193	0.383	355	0.306	-
185	0.196	0.390	360	0.309	-
190	0.199	0.397	365	0.312	-
195	0.202	0.404	370	0.315	-
200	0.206	0.410	375	0.319	-

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.



SC802

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3 Sided RHS Beams: Critical Temperature: 620°C Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	30 minutes	60 minutes	Section Factor up to m ¹	30 minutes	60 minutes
	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)
80	0.166	0.198	205	0.171	-
85	0.166	0.217	210	0.174	-
90	0.166	0.234	215	0.177	-
95	0.166	0.251	220	0.182	-
100	0.166	0.269	225	0.186	-
105	0.166	0.286	230	0.191	-
110	0.166	0.303	235	0.196	-
115	0.166	0.321	240	0.201	-
120	0.166	0.338	245	0.206	-
125	0.166	0.355	250	0.210	-
130	0.166	0.373	255	0.215	-
135	0.166	0.394	260	0.220	-
140	0.166	0.417	265	0.225	-
145	0.166	0.440	270	0.230	-
150	0.166	0.463	275	0.235	-
155	0.166	0.486	280	0.239	-
160	0.166	0.509	285	0.244	-
165	0.166	0.532	290	0.249	-
170	0.166	0.555	295	0.254	-
175	0.166	0.578	300	0.259	-
180	0.166	0.602	305	0.264	-
185	0.166	0.635	310	0.268	-
190	0.166	0.669	315	0.273	-
195	0.166	-	320	0.278	-
200	0.167	-			

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Loading Tables



4 Sided Hollow Columns: Critical Temperature: 520°C

Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	30 minutes	60 minutes	Section Factor up to m ¹	30 minutes	60 minutes
	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)
80	0.166	0.359	205	0.212	-
85	0.166	0.389	210	0.221	-
90	0.166	0.421	215	0.229	-
95	0.166	0.535	220	0.238	-
100	0.166	0.671	225	0.247	-
105	0.166	0.762	230	0.256	-
110	0.166	0.788	235	0.264	-
115	0.166	0.814	240	0.273	-
120	0.166	0.840	245	0.282	-
125	0.166	0.865	250	0.290	-
130	0.166	0.891	255	0.299	-
135	0.166	0.917	260	0.308	-
140	0.166	0.943	265	0.317	-
145	0.166	0.968	270	0.325	-
150	0.166	0.994	275	0.334	-
155	0.166	1.020	280	0.343	-
160	0.166	1.046	285	0.352	-
165	0.166	1.071	290	0.360	-
170	0.166	1.097	295	0.369	-
175	0.166	1.123	300	0.378	-
180	0.168	1.149	305	0.387	-
185	0.177	1.175	310	0.395	-
190	0.186	1.200	315	0.404	-
195	0.194	1.226	320	0.413	-
200	0.203	1.252			

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4 Sided Hollow Beams: Critical Temperature: 520°C Thickness (mm) Required for a Design Temperature of

Section Factor up to m ¹	30 minutes	60 minutes	Section Factor up to m ¹	30 minutes	60 minutes
	DFT (mm)	DFT (mm)		DFT (mm)	DFT (mm)
80	0.166	0.359	205	0.212	-
85	0.166	0.389	210	0.221	-
90	0.166	0.421	215	0.229	-
95	0.166	0.535	220	0.238	-
100	0.166	0.671	225	0.247	-
105	0.166	0.762	230	0.256	-
110	0.166	0.788	235	0.264	-
115	0.166	-	240	0.273	-
120	0.166	-	245	0.282	-
125	0.166	-	250	0.290	-
130	0.166	-	255	0.299	-
135	0.166	-	260	0.308	-
140	0.166	-	265	0.317	-
145	0.166	-	270	0.325	-
150	0.166	-	275	0.334	-
155	0.166	-	280	0.343	-
160	0.166	-	285	0.352	-
165	0.166	-	290	0.360	-
170	0.166	-	295	0.369	-
175	0.166	-	300	0.378	-
180	0.168	-	305	0.387	-
185	0.177	-	310	0.395	-
190	0.186	-	315	0.404	-
195	0.194	-	320	0.413	-
200	0.203	-			

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.