

4.7

Steel temperature $\theta_{a,ext}$ (°C) of an unprotected I-section exposed to the external fire curve as a function of the section factor $k_{sh}A_m/V$ (m^{-1}) corrected to allow for the shadow factor.

With $k_{sh} = 1$ the table can also be used for other types of unprotected sections, such as hollow sections and angles.

$k_{sh}A_m/V$ (m^{-1})	fire exposure time (minutes)			
	30	60	90	120
5	122	219	301	372
10	208	364	474	547
15	284	469	571	623
20	349	541	622	655
25	405	588	649	669
30	453	619	663	675
35	493	639	670	677
40	526	653	674	678
45	553	662	676	679
50	575	667	678	679
55	594	671	678	679
60	609	674	679	679
65	621	676	679	679
70	631	677	679	679
75	640	677	679	679
80	647	678	679	679
85	652	678	679	679
90	657	679	679	679
95	661	679	679	679
100	664	679	679	679

$k_{sh}A_m/V$ (m^{-1})	fire exposure time (minutes)			
	30	60	90	120
105	667	679	679	679
110	669	679	679	679
115	671	679	679	679
120	672	679	679	679
125	673	679	679	679
130	674	679	679	679
135	675	679	679	679
140	676	679	679	679
145	676	679	679	679
150	677	679	679	679
155	677	679	679	679
160	677	679	679	679
165	678	679	679	679
170	678	679	679	679
175	678	679	679	679
180	678	679	679	679
185	678	679	679	679
190	678	679	679	679
195	679	679	679	679
200	679	679	679	679