

Classification of Fire Performance of Wall and Ceiling Lining Materials

Using the Method of Kokkala, Thomas and Karlsson

Reference: Kokkala, M.A. Thomas, P.H. and Karlsson, B. Rate of Heat Release and Ignitability Indices for Surface Linings. Fire and Materials Vol 17, 209-216 (1993)

Instructions: User input areas are those shaded in light-blue. Before entering or pasting new data into the two columns, it is best to clear any existing data by clicking on the 'Clear Data' button. If necessary, formatting of the cells can be restored by clicking on the 'Formatting' button. **Copy data from column U (time) of the csv file and paste into the time column. Copy data from column I (HRR) of the csv file and paste into the Rate of Heat Release column.**

Material Identification/Description:

NRG Greenboard

Clear Data		Formatting	
INPUT DATA BELOW			
Data from AS/NZS 3837:1998			
Test Heat Flux = 50 kW/m ²			
Time (sec)	Rate of Heat Release (kW/m ²)		
0	2.76086	Time to Ignition (sec) =	27.7
3	3.05583	Ignitability Index (1/min) =	2.169
6	2.26037	End of Test (sec) =	312
9	1.66586	Rate of Heat Release Index (m=0.34) =	6655.0
12	3.92959	10 minute limit =	5629
15	2.77628	Rate of Heat Release Index (m=0.93) =	1739.3
18	1.04081	2 minute limit =	2117
21	2.07829	12 minute limit =	1292
24	1.29819		
27	30.0326		
30	120.079		
33	186.678		
36	192.85		
39	181.62		
42	177.059		
45	188.372		
48	202.135		
51	212.879		
54	221.291		
57	229.193		
60	233.421		
63	238.506		
66	239.756		
69	241.211		
72	238.246		
75	237.409		
78	238.519		
81	242.12		
84	242.204		
87	242.195		
90	238.344		
93	228.451		
96	212.375		
99	197.179		
102	187.488		

THE BCA CLASSIFICATION GROUP IS:

*
Group 3
*
*

This method assumes that no materials lead to flashover after 12 and before 20 minutes.
Materials that are predicted not to flashover within 12 minutes are put into Group 1.