

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:

SPECIMEN 1, BIRCH PLYWOOD 14-000762

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	1.78183
5	3.76962
10	4.67739
15	4.33209
20	3.81074
25	2.72874
30	21.247
35	54.2715
40	81.0416
45	101.438
50	122.867
55	143.289
60	156.937
65	165.714
70	166.632
75	162.674
80	152.516
85	149.044
90	149.546
95	155.641
100	165.655
105	173.142
110	175.512
115	169.285

Time to Ignition (sec) =	34.4
Ignitability Index (1/min) =	1.747
End of Test (sec) =	3610
Rate of Heat Release Index (m=0.34) =	27716.8
10 minute limit =	5857
Rate of Heat Release Index (m=0.93) =	1929.1
2 minute limit =	2187
12 minute limit =	1362

THE BCA CLASSIFICATION GROUP IS:

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Group 3
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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.