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TE 7530

Surface Spread of Flame test

Metex Ceilings Ltd.

Large scale surface spread of flame test to B.S. 476 : Part 7 : 1987
on EXCEL-TONE ceiling boards for Metex Ceilings Ltd.

Metex Ceilings Ltd., Unit 3, Silverdale Road, Hayes, Middlesex,
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January 1990

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TE 7530

SUMMARY

A sample of EXCEL-TONE ceiling boards, backed with Supalux, 12mm thick, was submitted to a large scale surface spread of flame test to B.S. 476 Part 7 : 1987 on 1 December 1989.

Class 1 was achieved.

1 OBJECTIVE

To classify EXCEL-TONE ceiling boards, according to its surface spread of flame characteristics, as shown by the large scale surface spread of flame test and criteria of British Standard 476 : Part 7 : 1987¹, at the request of Matex Ceilings Ltd.

2 SAMPLE

2.1 The sample was stated by the sponsor to be EXCEL-TONE mineral-fibre acoustic ceiling board, a mineral-wool based tile, coated on one face with a paint coating in 3 coats (1 base coat and 2 finish coats).

2.2 Further details of the composition of the sample have been given by the sponsor and are recorded on a confidential file.

2.3 The sample was received on 27 November 1989.

2.4 The sample was found to weigh approximately 4.19kg/m^2 . The coating was white in colour.

2.5 Six nominally identical specimens, 270mm x 885mm x 14.4mm thick, were tested.

2.6 Each specimen was backed in the specimen holder with 12mm-thick Supalux board.

3 CONDITIONING

The specimens were conditioned to equilibrium with air at $23\pm 2^\circ\text{C}$ and $50\pm 10\%$ relative humidity, as required by the standard. The weight of one sample on 29 November 1989 was 1003g, and on 30 November 1989 was 1003g.

4 PROCEDURE

4.1 The specimens were tested on 1 December 1989.

4.2 The coated face of each specimen was exposed to the heating conditions of the test.

5 RESULTS

Table 1 shows the observed spread of flame for each specimen at 14 minutes and at 10 minutes.

Table 1 Observed spread of flame

Specimen number	Flame spread	
	at 14min mm	at 10min mm
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0

6 SUPPLEMENTARY OBSERVATIONS

No associated phenomena were observed.

7 CLASSIFICATION

Exposed surfaces of materials used as linings for walls and ceilings are classified in Section 10 of the standard according to the rate and distance of spread of flame across them as in Table 2.

Table 2 Flame spread classification

Classification	Flame spread			
	at 14min		at 10min	
	Limit mm	Tolerance for one specimen in sample mm	Limit mm	Tolerance for one specimen in sample mm
Class 1	165	25	165	25
Class 2	215	25	455	45
Class 3	265	25	710	75
Class 4	- - - Exceeding Class 3 limits - - -			

8 CONCLUSION

The results of this test show that a sample of EXCEL-TONS ceiling boards, as described in this report, when tested and classified in accordance with B.S. 476 : Part 7 : 1987, achieved Class 1.

The test results relate only to the behaviour of the test specimens of the product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

9 REFERENCE

- 1 Fire tests on building materials and structures. Part 7. Surface spread of flame tests for materials. British Standard 476 : Part 7 : 1987. British Standards Institution, London, 1987.

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