



**FIRE
TECHNOLOGY
SERVICES**

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Our Ref: 27/01432/09/08
Your Ref:
Order No: 57794

2 October 2008
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Client: Arch Coatings UK Ltd
A1 Business Park
Knottingley
WF11 0BU

Job Title: **Fire Test**

Material Received: 12 September 2008

Description of Sample: One sample of panels, referenced: **Class 0 Board Plus 2 Coats of TU22 basecoat catalysed at 50% with TH222 (150g/m² per coat) and one coat of TZ2225 clear satin topcoat catalysed at 50% with TH222 (150g/m²).**

Brief: Fire Technology Services were requested to carry out a fire test on the sample supplied to BS476 Part 6.

UKAS Accreditation: Our Laboratories are UKAS accredited. However, it should be noted that tests marked * are not UKAS accredited in this report. They are not included in the UKAS Accreditation Schedule for our laboratory, either due to the work not conforming fully to the standard (e.g. reduced number of specimens) or to it being outside the scope of our accreditation, or subcontracted.

Uncertainty: An estimation of uncertainty of measurement has not been taken into account when making a judgement to any pass/fail criteria.





FIRE TESTS ACCORDING TO BS 476:PART 6:1989

Fire tests on building materials and structures. Method of test for fire propagation for products

Date of Test: 01/10/08

Test Method

The test was carried out in accordance with BS 476: Part 6: 1989.

Prior to testing the sample the calibration of the equipment was determined to ensure compliance with the test limits set out in the standard.

The sponsor sampled the material and the specimens were cut from the sample received to the dimensions set out in the standard by FTS. The specimens were tested stuck down onto 12mm calcium silicate board using PVA adhesive.

Temperatures of the flue gases were measured to the nearest degree centigrade at the time intervals and periods set out below, taking zero time as the moment of ignition of the gas supply. The temperature was measured by means of two thermocouples with their measuring junctions located in the cowl of the apparatus as required by the standard.

The relevant temperature-time intervals were observed for each individual specimen and the calibration board according to the ranges 0 to 3 minutes every 30 seconds, 4 to 10 minutes every 1 minute and 12 to 20 minutes every 2 minutes to give 3 time periods.

Calculation of Results

At each time interval the temperature of the calibration board was subtracted from that of the individual specimen temperature, this was then divided by ten multiplied by the time interval.

The sum of each individual value in each time period was then calculated to give an index of performance, *s*, for each specimen.

The fire propagation index of the product is calculated from the average of the individual *s* values for the total number of specimens in each time period.

$$\text{Total } I = i_1 + i_2 + i_3$$

A definitive classification is based on a sample of at least three specimens.



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Requirements

A Class 0 is the highest National product performance classification for lining materials. To meet Class 0 a material has to meet the requirements laid down in the UK Building Regulations 1991 Approved Document B (Amendments 2002) appendix A paragraph 13 that states that a composite material is either:

- a) composed throughout of materials of limited combustibility; or
- b) a class 1 material which has a propagation index (I) of not more than 12 and a sub index (i_1) of not more than 6 when tested to BS 476 Part 6.

Results

Number of specimens tested	Sub-index i_1	Sub-index i_2	Sub-index i_3	Total Fire propagation index I
3	1.28	6.25	2.44	9.97

Comments

In our opinion:-

- 1) The test results relate only to the behaviour of the test specimens of the product under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.
- 2) The results indicate that the sample met the requirements of Class 0 of the UK Building Regulations 1991 Approved Document B (Amendments 2002) appendix A paragraph 13
- 3) It should be noted that to meet the BS 476 Part 6 requirements the above material has also to meet Class 1 at BS 476 Part 7.





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The information contained on page no's 1/4 of this certificate is hereby certified to be a correct statement of the tests and investigations carried out by the FTS on the materials referred to.

Signed..... *B Chambers* Date *2/10/08*
Mr B. Chambers
Fire Technician

Reported By..... *P Doherty* Date *2/10/08*
Mr P. Doherty
Operational Head