

Test Report

WARRES No. 116925

ISO 1182 - 1990 (E)
Fire Tests - Building Materials
Non-Combustibility Test

Sponsored By

Saveguard Limited
Tame Valley Mill
Wainwright Street
Duckinfield
Cheshire
SK16 5NB

Warrington
FIRE
research

(PC5048W)

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Purpose Of Test

To determine the performance of a product when it is subjected to the conditions of the test specified in International Standard ISO 1182 - 1990 (E), Fire Tests - Building Materials - Non-combustibility test, and to confirm if the product, when assessed in accordance with the criteria specified in Part 1 of Annex 1 of the IMO Resolution MSC.61(67), can be classified as 'non-combustible'.

Scope Of Test

ISO 1182 - 1990 (E) specifies a method of test for the determination of the combustibility performance of a building material under specified conditions. The method of test and its results should be used solely to describe the combustibility or non-combustibility of a material in response to heat under controlled laboratory conditions. It should not by itself be used for describing or appraising the fire hazard of materials under actual fire conditions or as a sole source on which a valid assessment of hazard pertaining to combustibility can be based.

Description Of Test Specimens

The description of the specimens given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

The specimens comprised "FireHalt FH-043-120G", a chemically coated "E" glass woven fabric having an overall thickness of 0.35mm and a weight of 470g/m².

The sponsor was unwilling to provide any further information relating to the composition of the product.

The thickness of the product was less than the height of the test specimen specified in the Standard, therefore, each test specimen was constructed of a sufficient number of layers of the product to achieve the required dimensions. The layers occupied a horizontal position in the specimen holder and were held together firmly, without compression, by fine steel wires.

The specimens were supplied by the sponsor. Warrington Fire Research Centre was not involved in any selection or sampling procedure.

Conditioning Of Specimens

The specimens were received on the 2nd January 2001.

The specimens were conditioned in a ventilated oven maintained at a temperature of $60 \pm 5^{\circ}\text{C}$ for between 20 and 24 hours and were cooled to ambient temperature in a desiccator prior to testing.

Date Of Test

The test was performed on the 10th January 2001.

Test Procedure

The test was conducted in accordance with the test procedure described in ISO 1182 - 1983 (E) and this test report should be read in conjunction with that British Standard.

Test Results

The individual test results for each specimen tested, as required by clause 7 of the Standard are given in Table 1. The calculated results for each specimen tested, as required by clause 8 of the Standard are given in Table 2.

The behaviour of the specimens during the tests was observed and no difficulties were experienced.

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

Criteria For Evaluation

ISO 1182 - 1990 (E) does not specify any performance criteria. It is the responsibility of a particular regulating authority to decide which aspects of the test are appropriate to particular usages. However, it is our opinion when the results described in this report are assessed in compliance with the requirements of Part 1 to MSC 61(67) Annex 1 - Non-Combustibility Test, the product as tested can be regarded as non-combustible.

Some guidance is given in Annex A to the Standard, entitled "Criteria for evaluation".

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over five years old should be considered by the user. The laboratory that issued the report will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

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Responsible Officer



J COAKLEY
Technical Officer -
Reaction to Fire Testing

Approved



C DEAN
Senior Technical Officer - Reaction to Fire Testing
For and on behalf of
WARRINGTON FIRE RESEARCH CENTRE

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Table 1

SPECIMEN NUMBER	1	2	3	4	5
Initial furnace temperature, T_f (initial) (°C)	752	748	747	751	752
Maximum furnace temperature, T_f (maximum) (°C)	789	774	781	782	782
Final furnace temperature, T_f (final) (°C)	787	772	780	780	781
Maximum specimen centre temperature, T_c (maximum) (°C)	808	789	796	794	791
Final specimen centre temperature, T_c (final) (°C)	807	789	796	794	790
Maximum specimen surface temperature, T_s (maximum) (°C)	836	823	820	824	820
Final specimen surface temperature T_s (final) (°C)	836	822	819	823	818
Duration of sustained flaming (seconds)	NIL	NIL	NIL	NIL	NIL
Weight of specimen before test (gms)	98.5	98.8	99.0	99.1	99.0
Weight of specimen after test (gms)	95.8	96.7	96.5	96.4	95.9

Table 2

SPECIMEN NUMBER	1	2	3	4	5	Mean
Furnace thermocouple temperature rise, T_f (EC) (T_f maximum - T_f final)	2	2	1	2	1	1.6
Specimen centre thermocouple temperature rise, T_c (EC) (T_c maximum - T_c final)	1	0	0	0	1	0.4
Specimen surface thermocouple temperature rise, T_s (EC) (T_s maximum - T_s final)	0	1	1	1	2	1.0
Duration of sustained flaming (seconds)	NIL	NIL	NIL	NIL	NIL	NIL
Mass Loss (%)	2.7	2.1	2.5	2.7	3.1	2.6

Mr B Kennedy
Saveguard Limited
Tame Valley Mill
Wainwright Street
Duckinfield
Cheshire
SK16 5NB

Dear Mr Kennedy

WARRES No. 116925

We have pleasure in enclosing the above test report.

The description of the specimens tested has been prepared from information provided by yourselves and every precaution has been taken to ensure that the details are correct. If you find that there are any inaccuracies, however, could you please return the original report to us within 14 days together with written notification of the inaccuracy.

Yours sincerely



J COAKLEY
Technical Officer -
Reaction to Fire Testing

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