

L0553/013

C3561A with Flanhard

instead of  $Sb_2O_3$

Class 0 & Class I

# ***Wira*** Testing Centre

## **CONFIDENTIAL TEST REPORT**

**BTTG**

Wira Testing Centre is a NAMAS laboratory (registration 0185) and is approved by the International Wool Secretariat, Interwoollabs (ref. 24), the International Mohair Association (ref. 8) and the Civil Aviation Authority (ref. A1/8847/83); it is the official test house for the British Carpet Technical Centre. Its extensive testing, investigation and arbitration services cover textiles and many other goods.



AIR-FLOW  
MICROPROJECTION  
ALMETER/automat  
INTERWOOLLABS



Scott Bader Co Ltd  
Wollaston  
Wellingborough  
Northants  
NN29 7RL

26 June 1995  
Our ref: 10553/013/CTJ  
Your ref:  
Order No.  
Page 1 of 3

**Material Received on 1.6.95.**

One sample of panel labelled ref: Glass Fibre reinforced polyester resin laminate having one smooth face, a thickness of 2mm and consisting of a polyester resin (product reference Crystic 356 PA, batch UP21803) reinforced with 2 layers of 450g/m<sup>2</sup> chopped strand glass mat at a resin glass ratio of 2.8:1 by weight.

**Date of Test : 14.6.95.**

**FIRE TESTS ACCORDING TO BS 476:PART 7:1987 (AS AMENDED)  
(Method for classification of the surface spread of flame of products)**

**Procedure**

The face sides of the specimens were tested.

The following were recorded:-

- a) the time at which the flame front crosses each vertical reference line;
- b) the maximum extent of flame spread during the first 1.5min from the start of the test;
- c) the maximum extent of flame spread during the whole test i.e. 10 min or less (if applicable)
- d) the time (and distance) at which maximum flame spread is reached.

The flame spread at 1.5min and the final flame spread results were compared with the standard class limits and a classification was assigned.

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**Requirements**

The class limits for flamespread, detailed in BS 476:Part 7: are set out below.

	<u>Flame spread at 1.5 min (mm)</u>	<u>Final flame spread (mm)</u>
Class 1	165 (+25)	165 (+25)
Class 2	215 (+25)	455 (+45)
Class 3	265 (+25)	710 (+75)
Class 4	Exceeding Class 3 limits.	

A definitive classification is based on a sample of six specimens and the figure in brackets gives the tolerance by which only one specimen in six may exceed the class limit assigned.

**Results**

The following 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.

They also only relate to the materials tested. They do not guarantee to represent the performance of production materials.

Time for flame spread to reach (S) (mm)	Flame spread at 1.5min (mm)	Maximum Flame spread (mm)	Time to reach Maximum Flame Spread (S)
165 215 265 455 710			
- - - - -	60	60	60
- - - - -	55	55	60
- - - - -	55	55	60
- - - - -	50	50	60
- - - - -	50	50	60
- - - - -	55	55	60

**Classification - Class 1**

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**Observations and Comments**

The material was sampled in accordance with the BTTG Internal Flammability Procedure F1.

The information contained on page no's 1/3 of this certificate is hereby certified to be a correct statement of the tests and investigations carried out by Wira Testing Services on the materials referred to.



Signed.......... Date 26.6.95

C.T. Johnson  
Head of Fire Testing

CTJ/mag  
2700.rep

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Wellingborough  
Northants  
NN29 7RL

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**Material Received on 1.6.95.**

One sample of panel labelled ref: Glass Fibre reinforced polyester resin laminate having one smooth face, a thickness of 2mm and consisting of a polyester resin (product reference Crystic 356 PA, batch UP21803) reinforced with 2 layers of 450g/m<sup>2</sup> chopped strand glass mat at a resin glass ratio. of 2.8:1 by weight.

**Date of Test:** 14.6.95.

**FIRE TESTS ACCORDING TO BS 476:PART 6:1989**

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

**Procedure**

The test was carried out on the face side of the specimens. Each specimen was individually placed in the combustion chamber of the apparatus. 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 relevant temperature-time indices were calculated.

<u>Interval (min)</u>	<u>Period (min)</u>	<u>Index</u>
0.5	0.5 - 3	$i_1$
1	4 - 10	$i_2$
2	12 - 20	$i_3$

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

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

UK Building Regulations 1991 Approved Document B Appendix A12(b) states a Class 0 performance is achieved if:-

a Class 1 material has a fire propagation Index (I) of not more than 12 and subindex (i) of not more than 6.

The following 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.

They also only relate to the materials tested. They do not guarantee to represent the performance of production materials.

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**Results**

Number of specimens tested - 4

Sub-index	Sub-index	Sub-index	Total fire Propagation index
$i_1$	$i_2$	$i_3$	I
0.52	3.88	0.48	4.88

**Observations and Comments**

The  $i$  values quoted are the means of all individual S values.

The sample met the class 0 performance requirements.

The material was sampled in accordance with the BTTG Internal Flammability Procedure F1.

The information contained on page no's 1/2 of this certificate is hereby certified to be a correct statement of the tests and investigations carried out by Wira Testing Services on the materials referred to.



Signed.....*CTJ*.....Date 26.6.95  
95?

C.T. Johnson  
Head of Fire Testing

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