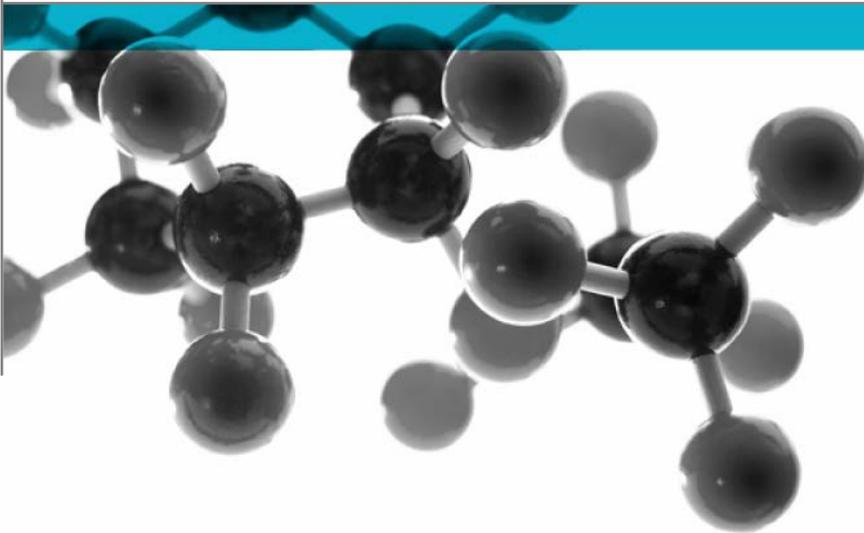


BS 2782-0: 2011 Method 508A



Rate of Burning (Laboratory Method)

A Report To: Deltech UK Ltd

Document Reference: 363916

Date: 5th May 2016

Issue No.:

Page 1

Testing
Advising
Assuring

Executive Summary

Objective To determine the performance of the following material when tested in accordance with BS 2782-0: 2011 Method 508A Rate of Burning (Laboratory Method).

Generic Description	Product reference	Thickness	Density
Polycarbonate	"BT5K60"	2mm*	1.21g/cm ³ *
*determined by Exova Warringtonfire			
Please see page 5 of this test report for the full description of the product tested			

Test Sponsor Deltech UK Ltd, Unit 5, Mill Hill Industrial Estate, Flower Lane, London, NW7 2HU

Test Results:

Specimen	Burn rate (mm/min)
1	0.00
2	0.00
3	0.00

When assessed in accordance with the criteria specified in Appendix A of the Building Regulations 2000, Approved Document B "Fire Safety", the product, as tested, is classified as "TP(b)".

Date of Test 28th April 2016

Signatories



Responsible Officer
C. Jacques *
Technical Officer



Authorised
T. Mort *
Senior Technical Officer

* For and on behalf of **Exova Warringtonfire**.

Report Issued: 5th May 2016

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Test Details

Purpose of test	<p>To determine the flammability of a material when it is tested in accordance with the test procedure specified in BS 2782-0: 2011 Method 508A Rate of Burning (Laboratory Method).</p> <p>The test was performed in accordance with the procedure defined in BS 2782-0: 2011 Method 508A Rate of Burning (Laboratory Method).and this report should be read in conjunction with that Standard.</p> <p>The test standard requires material to be tested at a thickness of 1.5 ± 0.1mm. At the request of the sponsor, the material was tested at a thickness of 2mm.</p>
Scope of test	<p>This small scale laboratory test is solely for assistance in monitoring consistency of production. The following test results are not intended and are not to be used as a means of assessing the potential fire hazard of a material in use.</p>
Fire test study group/EGOLF	<p>Certain aspects of some fire test specifications are open to different interpretations. The Fire Test Study Group and EGOLF have identified a number of such areas and has agreed Resolutions which define common agreement of interpretations between fire test laboratories which are members of the Groups. Where such Resolutions are applicable to this test they have been followed.</p>
Instruction to test	<p>The test was conducted on the 28th April 2016 at the request of Deltech UK Ltd, the sponsor of the test.</p>
Provision of test specimens	<p>The specimens were supplied by the sponsor of the test. Exova Warringtonfire was not involved in any selection or sampling procedure.</p>
Conditioning of specimens	<p>The specimens were received on the 8th April 2016.</p> <p>Three specimens were conditioned at a temperature of $23 \pm 2^{\circ}\text{C}$ and a relative humidity of $50 \pm 5\%$ prior to testing.</p>

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.

General description	Light Diffuser
Generic type	Polycarbonate
Product reference	"BT5K60"
Name of manufacturer	DELTECH
Thickness	2mm (determined by Exova Warringtonfire)
Weight per unit area	1.21kg/m ³ (determined by Exova Warringtonfire)
Colour reference	"6000K"
Flame retardant details	See Note 1 Below
Brief description of manufacturing process	See Note 1 Below

Note 1: The sponsor was unwilling to provide this information.

Test Results

Results

Three specimens were tested and the following results were obtained:

Specimen No.	Time for edge of flame to reach 25mm gauge mark (Seconds)	Time for edge of flame to reach 125 mm gauge mark (Seconds)	If 125mm gauge mark not reached		Burning rate (mm/minute)
			Duration of flame or afterglow after removal of burner (Seconds)	Distance of flame travel from 25mm gauge mark (mm)	
1	Did not reach	Did not reach	50	Nil	0
2	Did not reach	Did not reach	45	Nil	0
3	Did not reach	Did not reach	50	Nil	0

Conclusion

When assessed in accordance with the criteria specified in Appendix A of the Building Regulations 2000, Approved Document B “Fire Safety”, the product, as tested, is classified as “TP(b)”.

The classification requirements can be found in Appendix 1.

Applicability of test results

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.

The test results relate only to the specimens of the product in the form in which they were tested. Small differences in the composition or thickness of the product may significantly affect the performance during the test and may therefore invalidate the test results. Care should be taken to ensure that any product which is supplied or used is fully represented by the specimens which were tested.

Validity

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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Appendix 1 – Classification criteria

Thermoplastic materials may be classified TP(a) rigid or TP(b) according to the following methods:

TP(a) rigid:

- i. rigid solid PVC sheet;
- ii. solid (as distinct from double- or multiple-skin) polycarbonate sheet at least 3mm thick;
- iii. multi-skinned rigid sheet made from unplasticised PVC or polycarbonate which has a Class 1 rating when tested to BS 476-7:1971, 1987 or 1997; or
- iv. any other rigid thermoplastic product, a specimen of which (at the thickness of the product as put on the market), when tested to BS 2782-0:2004 Method 508A *Rate of burning, Laboratory method*, performs so that the test flame extinguishes before the first mark and the duration of flaming or afterglow does not exceed 5 seconds following removal of the burner.

TP(b):

- i. rigid solid polycarbonate sheet products less than 3mm thick, or multiple-skin polycarbonate sheet products which do not qualify as TP(a) by test; or
- ii. other products which, when a specimen of the material between 1.5 and 3mm thick is tested in accordance with BS 2782-0:2004 Method 508A, has a rate of burning which does not exceed 50mm/minute

Revision History

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Reason for Revision:	