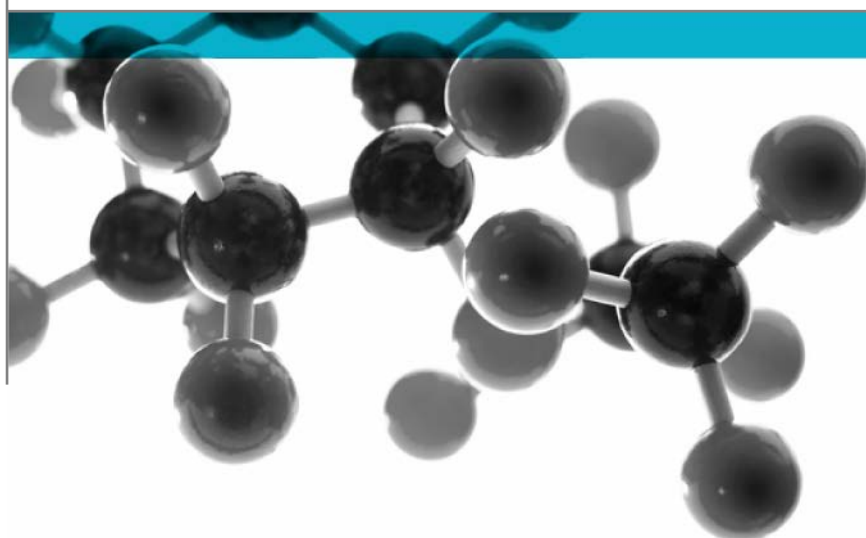


# EN 45545-2: 2013 + A1:2015



## Summary Test Report – Requirement Table 5 (R10)

**Test Method References “T04” (EN ISO 9239-1: 2010; Part 1. Determination of the Burning Behaviour Using a Radiant Heat Source), “T10.03” (ISO 5659-2: 2012; Plastics – Smoke Generation. Part 2 Determination of Optical Density by a Single Chamber Method) and “T11.02” (Gas Analysis in the Smoke Box ISO, using FTIR Technique)**

A Report To: Remmers (UK) Ltd

Document Reference: 405566

**Date:** 10<sup>th</sup> October 2018

**Issue No.:** 1

Page 1

**Testing  
Advising  
Assuring**

## Executive Summary

### Objective

To assess the results of tests performed in accordance with methods T04, T10.03 and T11.02 as defined in EN 45545-2: 2013 + A1:2015 at an irradiance level of 25kW/m<sup>2</sup> with a pilot flame, on specimens of a product and to provide an opinion of compliance with the requirements, as defined in EN 45545-2: 2013 + A1:2015.

Generic Description	Product reference	Thickness	Weight per unit area
Epoxy resin coated fibre cement board	"QP 100 System"	13.24mm*	12.96kg/m <sup>2</sup>
<b>Individual components used to manufacture composite:</b>			
Epoxy resin	"QP 100 System"	1mm – 2mm	2 layers 0.3kg/m <sup>2</sup> & 0.6kg/m <sup>2</sup>
Fibre cement board substrate	Unable to provide	12mm	Unable to provide
<b>Please see page 5 of this test report for the full description of the product tested</b>			


### Test Sponsor


Remmers (UK) Ltd, Unit B1, The Fleming Centre, Fleming Way, Cranley, West Sussex, RH10 9NN

### Opinion

**We consider the results of the tests confirmed in reports referenced 403537 (Issue 2) & 403538 to the test methods detailed above demonstrate that the product, as tested, complies with requirements, R10 (detailed in Table 5 of EN 45545-2: 2013 + A1:2015) for a HL1, HL2 and HL3 Hazard Level Classification.**

## Signatories


Responsible Officer C. Henry * Fire Scientist


Authorised B. Dean * Technical Leader

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

Report Issued: 10<sup>th</sup> October 2018

This version of the report has been produced from a .pdf format electronic file that has been provided by **Exova Warringtonfire** to the sponsor of the report and must only be reproduced in full. Extracts or abridgements of reports must not be published without permission of **Exova Warringtonfire**.

CONTENTS	PAGE NO.
EXECUTIVE SUMMARY .....	2
SIGNATORIES.....	2
TEST DETAILS.....	4
DESCRIPTION OF TEST SPECIMENS .....	5
CLASSIFICATION .....	6
REVISION HISTORY .....	7

## Test Details

<b>Terms Of Reference</b>	To assess the results of tests performed in accordance with methods T04, T10.03 and T11.02 as defined in EN 45545-2: 2013 + A1:2015 at an irradiance level of 25kW/m <sup>2</sup> with a pilot flame, on specimens of a product and to provide an opinion of compliance with the requirements, as defined in EN 45545-2: 2013 + A1:2015.
<b>Introduction</b>	<p>Specimens of a product have been tested in accordance with the test methods "T04" (EN ISO 9239-1: 2010; Part 1. Determination of the Burning Behaviour Using a Radiant Heat Source), "T10.03" (ISO 5659-2: 2012; Plastics – Smoke Generation. Part 2 Determination of Optical Density by a Single Chamber Method) and "T11.02" (Gas Analysis in the Smoke Box ISO, using FTIR Technique) as specified in EN 45545-2:2013 + A1:2015 "Requirements for Fire Behaviour of Materials and Components". The results of the tests are fully reported in the <b>Exova Warringtonfire</b> test reports No's. 403537 (Issue 2) &amp; 403538.</p> <p>This summary report has been prepared at the request of the sponsor and relates the results of the tests to the requirements for R10, as defined in Table 5 of EN 45545-2: 2013 + A1:2015.</p> <p>This summary should be read in conjunction with, and not accepted as a substitute for the <b>Exova Warringtonfire</b> test reports No's. 403537 (Issue 2) &amp; 403538. Those test reports may include additional information which may be relevant to the assessment of the potential fire hazard of the product.</p>
<b>Face subjected to tests</b>	The specimens were mounted in the test positions such that the coated face was exposed to the heating conditions of the tests.
<b>Results of test</b>	The following results were obtained for the specimens, which were tested.
<b>"T04" ISO 9239-1: 2002</b>	<b>Average critical radiant flux =    ≥11.0kW/m<sup>2</sup></b>
<b>"T10.03" ISO 5659-2: 2006</b>	<b>D<sub>s</sub> max =    98</b>
<b>"T11.02" Gas Analysis in the Smoke Box ISO, Using FTIR Technique</b>	<b>CIT<sub>4mins</sub> =    0.02</b> <b>CIT<sub>8mins</sub> =    0.23</b>
<b>Applicability of test results</b>	<p>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 hazard of the product in use.</p> <p>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 will therefore invalidate the test results. It is the responsibility of the supplier of the product to ensure that the product which is supplied is identical with the specimens which were tested.</p>

## Description of Test Specimens

The description of the specimens given below has been prepared from information provided by the sponsor of the test. This information has not been independently verified by **Exova Warringtonfire**. All values quoted are nominal, unless tolerances are given.

General description		Epoxy resin coated fibre cement board
Product reference		"QP 100 System"
Name of manufacturer		Remmers
Overall thickness		13.24mm (determined by <b>Exova Warringtonfire</b> )
Overall weight per unit area		12.96kg/m <sup>2</sup> (determined by <b>Exova Warringtonfire</b> )
Coating	Generic type	Epoxy resin
	Product reference	"QP 100 System"
	Name of manufacturer	Remmers
	Colour reference	"Grey"
	Number of coats	2
	Application rate per coat	0.3kg/m <sup>2</sup> 0.6kg/m <sup>2</sup>
	Application method	Epoxy Roller
	Flame retardant details	<b>See Note 1 Below</b>
Substrate	Generic type	Cement fibre board
	Product reference	<b>See Note 2 Below</b>
	Detailed description	<b>See Note 2 Below</b>
	Name of manufacturer	Gtec Hydropanel
	Thickness	12mm
	Weight per unit area	<b>See Note 2 Below</b>
	Colour reference	<b>See Note 2 Below</b>
	Flame retardant details	<b>See Note 1 Below</b>
Brief description of manufacturing process		<b>See Note 2 Below</b>

**Note 1: The sponsor of the test has confirmed that no flame retardants were used in the production of this component.**

**Note 2: The sponsor of the test was unable to provide this information.**

## Classification

---

### Opinion

We consider the results of the tests confirmed in reports referenced 403537 (Issue 2) & 403538 to the test methods detailed above demonstrate that the product, as tested, complies with requirements, R10 (detailed in Table 5 of EN 45545-2: 2013 + A1:2015) for a HL1, HL2 and HL3 Hazard Level Classification.

### Validity of opinion

This opinion is based on the requirements of EN 45545-2:2013 + A1:2015 at the date of this report. If EN 45545-2 is revised or amended in any way subsequent to that date, care must be taken to ensure that this opinion is not invalidated by those revisions or amendments.

The opinion has been formulated on the assumption that the specimens are representative of the product in practice. **Exova Warringtonfire** was not involved in any sampling or selection procedures which would confirm this or in any audit testing which would provide confidence in the consistency of the product in the tests.

This report may only be reproduced in full. Extracts or abridgements shall not be published without permission of **Exova Warringtonfire**.

## Revision History

Issue No :	Re - Issue Date:
Revised By:	Approved By:
Reason for Revision:	

Issue No :	Re - Issue Date:
Revised By:	Approved By:
Reason for Revision:	