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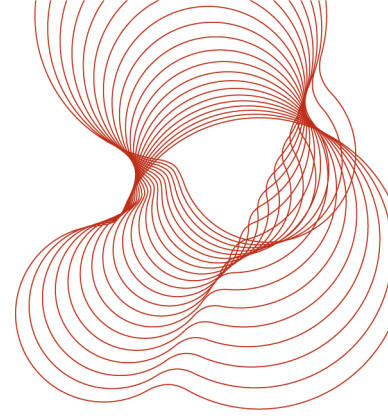
**CEN/TS 1187:2012, test 4  
on RubberBond  
FleeceBack EPDM on a  
plywood deck**

Prepared for:  
Flex-R Ltd  
Unit 5 Central Park  
Bellfield Road  
High Wycombe  
Bucks  
HP13 5HG

6<sup>th</sup> December 2012  
Test report number 282049A  
revision 1



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**Prepared on behalf of BRE Global by**

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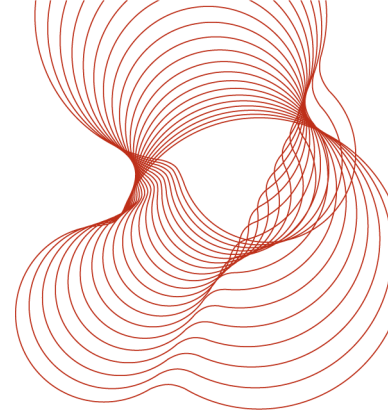
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This report is made on behalf of BRE Global. By receiving the report and action on it, the client accepts that no individual is personally liable in contract, tort or breach of statutory duty (including negligence). No third party has any right to rely on this report.



## 1 Objective

To determine the capacity to resist penetration by fire of the sample specified in Section 2 as shown by the external fire exposure roof test CEN/TS 1187:2012, test 4<sup>1</sup>.

## 2 Sample

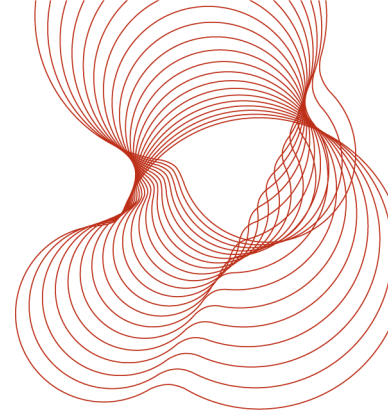
### 2.1 Traceability

The test samples were supplied by the test sponsor. BRE Global were not involved in the sample selection process and therefore cannot comment upon the relationship between samples supplied for test and the product supplied to market.

### 2.2 Description of sample and test format.

Unless otherwise stated all measurements are nominal.

Test Sponsor	Flex-R Ltd Unit 5 Central Park Bellfield Road High Wycombe Bucks HP13 5HG
Manufacturer of sample	Carlisle SynTec EPDM Membranes
Sample name/reference	RubberBond FleeceBack EPDM on a plywood deck
Sample description (as provided by test sponsor/manufacturer)	Details of the sample provided by the sponsor are given in Annex 1
Description of sample (as received)	Fleece backed, dark grey membrane, total thickness 3mm, membrane 1.15mm thick , adhered to 18.2mm thick plywood
Sample receipt date	6 <sup>th</sup> August 2012
Test face	Membrane face
Test format	The test was carried out in the flat position
Date of test	3 <sup>rd</sup> and 5 <sup>th</sup> September 2012



### 3 Conditioning

The specimens were conditioned as required by the standard.

### 4 Results

4.1 The testing conditions were as required by the standard.

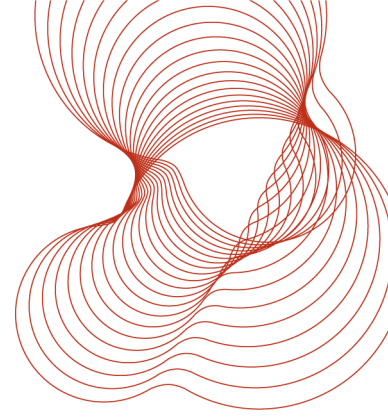
4.2 Preliminary ignition test

Specimen reference	Ambient	Joint	Flame spread mm	Flame duration min:s	Penetration min:s
E5188-6	20.1°C 64.1%RH	None	0	0:00	None

4.3 Penetration test

Specimen reference	Ambient	Joint	Penetration min:s	Observations
E5188-3	23.8°C 35.7%RH	None	None	No ignition
E5188-1	25.3°C 32.4%RH	Membrane	None	No ignition
E5188-2	25.6°C 33.2%RH	None	None	No ignition

4.4 No dripping of material occurred from the underside of any specimen tested, nor was any mechanical failure, or development of holes, observed.



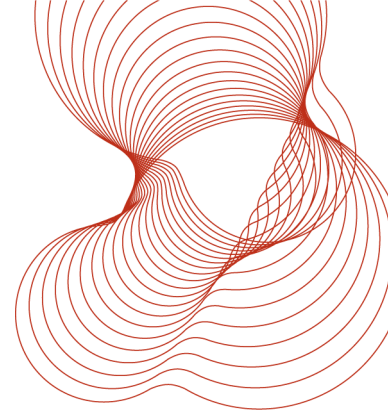
## 5 Validity

This report is revision 1 of BRE report 282049A dated 25<sup>th</sup> September 2012. At the request of the client, a correction to the product description has been made in this report. BRE report 282049A dated 25<sup>th</sup> September 2012 has been withdrawn with effect from the date of this report.

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 5 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.

## 6 Reference

Test methods for external fire exposure to roofs. Test 4 – Two stage method incorporating burning brands, wind and supplementary radiant heat. CEN/TS 1187:2012, test 4. British Standards Institution, London, 2012.



## Annex 1

General description		RUBBERBOND FLEECEBACK EPDM/PLYWOOD
Product reference		RUBBERBOND FLEECEBACK EPDM
Specimen configuration		RUBBERBOND FLEECEBACK EPDM/PLY
Overall thickness		22MM
Overall weight per unit area		11.75KG
Waterproofing membrane (Test Face)	General description of membrane	1.2MM EPDM/1.4MM POLYESTER FLEECE
	Product reference of membrane	RUBBERBOND FLEECEBACK EPDM
	Overall weight per unit area	1.2KG
	Overall thickness of	2.6MM
	Generic type	EPDM
	Name of manufacturer	CARLISLE SYNTEC
	Colour reference	SLATE GREY
	Trade name of flame retardant	OPTION 4
	Generic type of flame retardant	OPTION 4
	Amount of flame retardant	OPTION 4
Bonding details (membrane to plywood)		
Adhesive	Product reference	WBA
	Generic type	ACRYLIC ADHESIVE
	Name of manufacturer	OPTION 3
	Application rate	250ML/M2
	Colour reference	WHITE
	Trade name of flame retardant	OPTION 4
	Generic type of flame retardant	OPTION 4
	Amount of flame retardant	OPTION 4
Deck	Product reference	PLYWOOD
	Generic type	PLYWOOD
	Name of manufacturer	OPTION 2
	Thickness	18MM
	Density / weight per unit area	10.50KG
	Colour reference	BROWN
	Trade name of flame retardant	OPTION 4
	Generic type of flame retardant	OPTION 4
	Amount of flame retardant	OPTION 4

OPTION 1. – The sponsor was unwilling to provide this information.

OPTION 2. – The sponsor was unable to provide this information.

OPTION 3. – The sponsor of the test has provided this information but at the specific request of the sponsor, these details have been omitted from the report and are instead held on the confidential file relating to this investigation.

OPTION 4. - The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the product / component.

=====REPORT ENDS=====