

BRE Global Classification Report

Classification report for roofs/roof coverings exposed to external fire (flat) in accordance with EN 13501-5: 2016 on ClassicBond EPDM, 18mm OSB3 deck

Prepared for: SIG Trading Ltd t/a Flex-R

Date: Issue 1: 31 March 2023

Report Number: Additional Report P124770-1001

Test date: 12 August 2021

BRE Global Ltd
Watford, Herts
WD25 9XX

Customer Services 0333 321 8811

From outside the UK:
T + 44 (0) 1923 664000
F + 44 (0) 1923 664010
E enquiries@bre.co.uk
www.bre.co.uk

Prepared for:

SIG Trading Ltd T/a Flex-R
Adsetts House
16 Europa View
Sheffield Business Park
Sheffield
S9 1XH
UK



Prepared by

Name P Potter

Position Senior Technician

Signature

A handwritten signature in blue ink, appearing to read 'P Potter'.

Authorised by

Name J Hunter

Position Section Leader, Reaction to Fire

Date 31 March 2023

Signature

A handwritten signature in black ink, appearing to read 'J Hunter'.

This report is made on behalf of BRE Global and may only be distributed in its entirety, without amendment, and with attribution to BRE Global Ltd to the extent permitted by the terms and conditions of the contract. Test results relate only to the specimens tested. BRE Global has no responsibility for the design, materials, workmanship or performance of the product or specimens tested. This report does not constitute an approval, certification or endorsement of the product tested and no such claims should be made on websites, marketing materials, etc. Any reference to the results contained in this report should be accompanied by a copy of the full report, or a link to a copy of the full report.

BRE Global's liability in respect of this report and reliance thereupon shall be as per the terms and conditions of contract with the client and BRE Global shall have no liability to third parties to the extent permitted in law.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.



Table of Contents

| | | |
|-------------------|---|-----------|
| 1 | Introduction | 5 |
| 2 | Sample | 5 |
| 2.1 | Traceability | 5 |
| 2.2 | Description of the roof/roof covering | 5 |
| 3 | Reports in support of classification | 6 |
| 4 | Test results in support of classification | 6 |
| 4.1 | Test conditions: | 6 |
| 4.2 | Preliminary test (stage 1) | 7 |
| 4.3 | Penetration test (stage 2) | 7 |
| 5 | Classification and field of application | 8 |
| 5.1 | Reference of classification | 8 |
| 5.2 | Classification | 8 |
| 5.3 | Field of application | 8 |
| 6 | Limitations | 8 |
| 7 | Reference | 9 |
| Appendix A | Product description provided by the test sponsor | 10 |
| Appendix B | Photographs of the test specimens | 13 |



BRE Global

EXTERNAL EXPOSURE TO FIRE CLASSIFICATION REPORT (Flat) OF ClassicBond EPDM, 18mm OSB deck

| | |
|-----------------------------------|--|
| Classification report No.: | Additional Report P124770-1001 |
| Issue number: | 1 |
| Sponsor: | SIG Trading Ltd T/a Flex-R |
| Product name: | ClassicBond EPDM |
| Prepared by: | BRE Global Ltd., Bucknalls Lane, Garston, Watford, WD25 9XX, England. |
| Approved Body Number | 0832 |
| Date of issue: | 31 March 2023 |

This classification report consists of 14 pages and may only be used or reproduced in its entirety.



1 Introduction

This classification report defines the classification (flat) assigned to roof/roof covering ClassicBond EPDM, 18mm OSB deck in accordance with the procedures given in EN 13501-5: 2016.

2 Sample

2.1 Traceability

The test samples were supplied by the client. 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. The results apply to the sample as received.

2.2 Description of the roof/roof covering

Unless otherwise stated all measurements are nominal.

| | |
|---|---|
| Test Sponsor | SIG Trading Ltd t/a Flex-R, Adsetts House, 16 Europa View, Sheffield Business Park, Sheffield, S9 1XH |
| Manufacturer of sample | Note 2 |
| Sample name/reference | ClassicBond EPDM |
| Place of manufacture | Note 2 |
| Sample description (as provided by test sponsor/manufacturer) | Fully adhered EPDM membrane over polyiso insulation A product definition as supplied by the test sponsor has been included in this report as Appendix A |
| Description of sample (as received by BRE Global) | <ol style="list-style-type: none">1. Dark grey rubber type membrane 1.45mm thick – no underlay or fleece. 6 buried fixings visible below membrane layer.2. PIR type insulation with light grey facings. 150mm thick3. Foil faced black plastic layer, less than 1mm thick (unable to measure)4. OSB board, 18mm thick Photographs of the sample are given in Appendix B. |
| Sample receipt date | 03 June 2021 |
| Test face | ClassicBond EPDM |



| | |
|----------------|---|
| Test format | The test was carried out in the flat position |
| Date of test | 12 August 2021 |
| Purchase order | 74522 |
| Test operator | P Potter |

3 Reports in support of classification

| Name of Laboratory | Name of sponsor | Test report ref. no. | Test method |
|--------------------|----------------------------|--------------------------------|--------------------------|
| BRE Global | SIG Trading Ltd T/a Flex-R | Additional Report P124770-1000 | CEN/TS 1187: 2012 Test 4 |

4 Test results in support of classification

4.1 Test conditions:

Test pitch: Flat

Deck: As product description, Section 2

Supporting structure: As product description, Section 2



4.2 Preliminary test (stage 1)

| Parameter | Criteria | | | | Test result | Compliance | | | |
|-----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | Class B _{ROOF} (t4) | Class C _{ROOF} (t4) | Class D _{ROOF} (t4) | Class E _{ROOF} (t4) | | Class B _{ROOF} (t4) | Class C _{ROOF} (t4) | Class D _{ROOF} (t4) | Class E _{ROOF} (t4) |
| Burn time | < 5 min | < 5 min | < 5 min | ≥ 5 min | 2:53 sec | Y | - | - | - |
| Flame spread distance | < 0,38m | < 0,38m | < 0,38m | No limit | 0 mm | Y | - | - | - |
| Penetration | None | None | None | None | None | Y | - | - | - |

4.3 Penetration test (stage 2)

| Parameter | Criteria | | | | Test results | | | | Compliance | | | |
|--|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------|---------------|---------------|--------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| | Class B _{ROOF} (t4) | Class C _{ROOF} (t4) | Class D _{ROOF} (t4) | Class E _{ROOF} (t4) | Specimen 1 | Specimen 2 | Specimen 3 | Mean* | Class B _{ROOF} (t4) | Class C _{ROOF} (t4) | Class D _{ROOF} (t4) | Class E _{ROOF} (t4) |
| Penetration time | ≥ 60 min | < 60 min ≥ 30 min | <30 min | < 30 min | ≥ 60 min | ≥ 60 min | ≥ 60 min | 60 min | Y | - | - | - |
| * If one or two of the specimens have not failed at one hour, a time of 60 min shall be used in calculating the mean time of penetration | | | | | | | | | | | | |



5 Classification and field of application

5.1 Reference of classification

This classification has been carried out in accordance with EN 13501-5: 2016.

5.2 Classification

The roof / roof covering ClassicBond EPDM, as described in Section 2 above and Appendix A, in relation to its external fire performance is classified:

B_{ROOF}(t4)

5.3 Field of application

This classification is valid for the following conditions:

| | |
|----------------------------|----------------------------------|
| Range of pitches | 0° < pitch ≤ 10° |
| Substrate / deck | 18 mm OSB3 |
| Supporting structure | As tested, no variation allowed |
| Product configuration | As tested, no variation allowed |
| Product composition | As tested, no variation allowed |
| Product application method | As tested, no variation allowed |
| Product thickness | As tested, no variation allowed |
| Product colour | As tested, no variation allowed |
| Joints | As tested, no variation allowed. |

6 Limitations

This classification document does not represent type approval or certification of the product.

The information in section 2.2 and Appendix A of this report, other than that indicated otherwise, has been supplied by the test sponsor and has not been independently verified by BRE Global. The validity of the results is conditional on the accuracy of that data.

This report is additional to that issued as P120586-1007 Issue 1 and dated 29 September 2021. The original report remains valid and is not replaced by the Additional Report. The product has not been retested and the Additional Report does not involve technical change or technical review of the original report. The original and new name of the product and the name of the company commercially responsible for the product are documented by the laboratory and maintained in laboratory records.

The manufacturer has made a declaration, which is held on file, that the product placed in the market place, named in section 2.2 of this report and produced at the manufacturing plant listed therein, is



exactly the same as the product that was tested on 12 August 2021. This has not been verified by BRE Global.

7 Reference

- 1 EN 13501-5: 2016 Fire classification of construction products and building elements – Part 5: Classification using data from external fire exposure to roofs tests. CEN, Avenue Marnix 17, B-1000, Brussels, Belgium. 2016.
- 2 CEN/TS 1187: 2012 Test methods for external fire exposure to roofs. Test 4 – Two stage method incorporating burning brands, wind and supplementary radiant heat. CEN, Avenue Marnix 17, B-1000, Brussels, Belgium. 2012.



Appendix A Product description provided by the test sponsor

PRODUCT DEFINITION

| | |
|--|---|
| Distributor (Company name and address): SIG Trading Ltd t/a Flex-R Adsetts House, 16 Europa View, Sheffield Business Park, Sheffield, S9 1XH | |
| Product name of roof covering tested | ClassicBond EPDM |
| General description of roofing product tested and build up | Fully adhered EPDM membrane adhered to polyiso insulation |
| Manufacturer of the roofing product (Company name and address) | Note 2 |
| Place of manufacture | Note 2 |
| Test specimens assembled by (if not by roof product manufacturer) | Flex-R |
| Thickness (overall depth of roof structure tested) | 170mm |
| Mass per unit area (overall value for the roof structure tested) | 19kg/m ² |
| Flame retardant treatment added, or organic content limited during production (yes/no), if yes give details | Inorganic fire retardants in the EPDM, quantity not disclosed. |
| Harmonised EN product standard, and AVCP System No. if applicable | EN 13956 2+ |
| Please describe the roof build up, layer by layer, starting with the upper roof surface. Please add or remove rows as required. | |
| Test face (Layer 1) | <ul style="list-style-type: none"> - Name/reference - Manufacturer - Type - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Fire retardant (trade name, generic type, amount) |
| | <p>ClassicBond EPDM</p> <p>Note 2</p> <p>Non-Reinforced EPDM</p> <p>1.5mm</p> <p>1.9kg/m²</p> <p>Dark grey/Black</p> <p>Adhered</p> <p>Double sided jointing tape and primer (HP-250 and SecurTape)</p> <p>Yes</p> <p>Amount not disclosed</p> |



| | |
|---|---|
| Distributor (Company name and address): SIG Trading Ltd t/a Flex-R Adsetts House, 16 Europa View, Sheffield Business Park, Sheffield, S9 1XH | |
| Product name of roof covering tested | ClassicBond EPDM |
| Layer 2 <ul style="list-style-type: none"> - Name/reference - Manufacturer - Type - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Fire retardant (trade name, generic type, amount) | Bonding Adhesive Note 2 Synthetic Rubber Adhesive N/A 550gr/m ² Yellow Roller N/A No |
| Layer 3 <ul style="list-style-type: none"> - Name/reference - Manufacturer - Type - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Fire retardant (trade name, generic type, amount) | PIR Rigid Insulation Note 2 Note 2 150mm 4.5kg/m ² Cream Mechanically fastened Butt joints Not known |
| Layer 4 <ul style="list-style-type: none"> - Name/reference - Manufacturer - Type - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Fire retardant (trade name, generic type, amount) | Foil Faced SA AVCL Note 2 Note 2 0.6mm 700g/m ² Grey Self-adhesive Self-adhesive Not known |
| Layer 5 <ul style="list-style-type: none"> - Name/reference - Manufacturer - Type - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Fire retardant (trade name, generic type, amount) | Foil Faced SA AVCL Primer Note 2 Note 2 N/A 100gr/m ² Black Brush/Roller N/A Not known |



| | |
|--|---|
| Distributor (Company name and address): SIG Trading Ltd t/a Flex-R Adsetts House, 16 Europa View, Sheffield Business Park, Sheffield, S9 1XH | |
| Product name of roof covering tested | ClassicBond EPDM |
| Layer 6 - Name/reference (eg "deck" or - Manufacturer "substrate") - Type - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Fire retardant (trade name, generic type, amount) | OSB3 Note 2 Softwood flakes/strands bonded with phenolic resins 18mm 11.2kg/m ² Yellow/cream Mechanically fastened Tongue & Groove Not known |

Note 2: At the request of the test sponsor this commercially sensitive information which forms part of the definition of the product tested/classified has been withheld from the report and is held on a confidential client file by BRE Global.



Appendix B Photographs of a test specimen

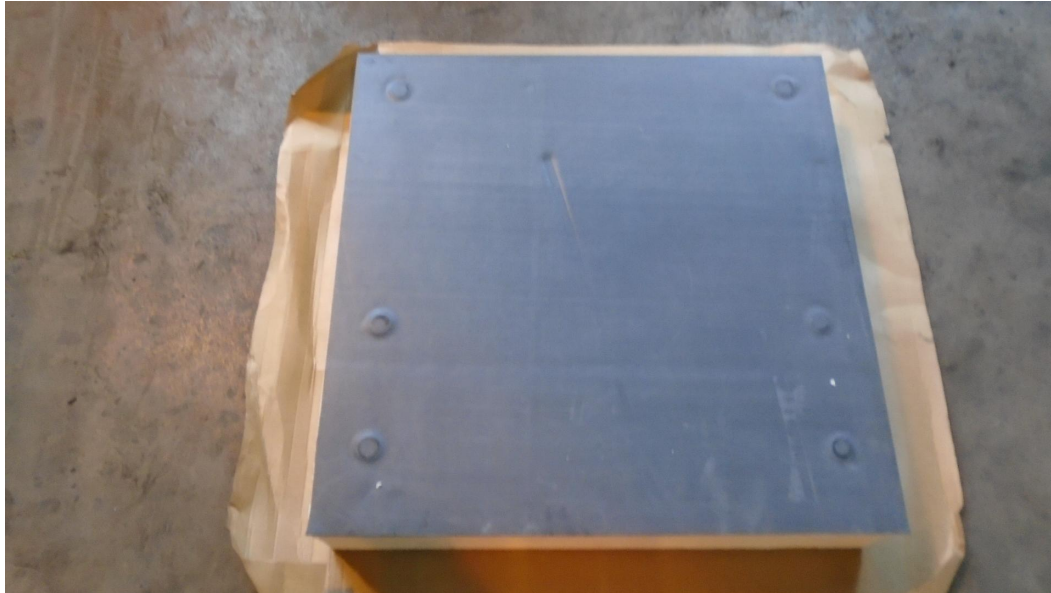


Figure 1. Test face – EDPM



Figure 2. Edge



Figure 3. Back – OSB board