

BRE Global Test Report

CEN/TS 1187: 2012 Test 4 External fire exposure to roofs test on (flat) on SureSet Resin Bound Paving on 18 mm plywood deck

Prepared for: Sureset UK Ltd

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1 Objective

To classify the sample described in Section 2 according to its capacity to resist penetration by fire, using the external fire exposure to roofs test (flat) specified in CEN/TS 1187: 2012 Test 4¹.

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 sample and test format.

Unless otherwise stated all measurements are nominal.

Test Sponsor	Sureset UK Ltd, 32 Deverill Road Trading Estate, Warminster, BA12 7BZ, UK
Manufacturer of sample	As above
Sample name/reference	SureSet Resin Bound Paving
Place of manufacture	As above
Sample description (as provided by test sponsor/manufacturer)	Polyurethane bound aggregate paving on stone filled geocell drainage layer on plywood deck. 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) Bound fine gravel (Particle sizes approx. 2 to 14 mm) approx. 25 mm deep. 2) Black plastic moulded layer including a filling of stones approx. 50-52 mm deep. 3) Metal frame surrounding layers 1 & 2, including screwed on lifting points. 4) Plywood base, 18mm thick. Photographs of the sample are given in Appendix B.
Sample receipt date	15 June 2021 (E13667)
Test face	Aggregate



Test format	The test was carried out in the flat position
Date of test	13 September 2021
Purchase order	27028
Test operator	P Potter

3 Conditioning

The specimens were conditioned as required by the standard.

4 Results

4.1 Preliminary ignition test

Specimen reference	Joint	Ambient	Flame spread mm	Flame duration min:sec	Penetration min:sec
E13667/1	None	26.4 °C 48.0 %RH	0	0.00	None

4.2 Penetration test

Specimen reference	Joint	Ambient	Penetration min:sec	Observations
E13667/2	None	26.9 °C 47.2%RH	None	Did not ignite.
E13667/3	None	22.1 °C 59.8 %RH	None	Did not ignite.
E13667/4	None	22.2 °C 60.5 %RH	None	Did not ignite.

4.3 Observations

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



5 Conclusion

CEN/TS 1187: 2012 does not contain acceptance criteria and therefore this test report does not indicate a pass or fail of the product.

6 Validity

This test report 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.

Because of the nature of reaction to fire testing and the consequent difficulty in quantifying the uncertainty of measurement of reaction to fire, it is not possible to provide a stated degree of accuracy of the results.

7 Reference

- 1 CEN/TS 1187: 2012. Test methods for external fire exposure to roofs. Test 4 – Method with two stages incorporating burning brands, wind and supplementary radiant heat. CEN, Avenue Marnix 17, B-1000, Brussels, Belgium.



Appendix A Product description provided by the test sponsor

PRODUCT DEFINITION

Test sponsor (Company name and address): Sureset UK Ltd 32 Deverill Road Trading Estate, Warminster BA12 7BZ UK	
Product name of roof covering tested	SureSet Resin Bound Paving
Product reference/number	Barley Butter / SureCell
General description of roofing product tested and build up	Polyurethane bound aggregate paving on stone filled geocell drainage layer on plywood deck.
Manufacturer of the roofing product (Company name and address)	SureSet UK Ltd 32 Deverill Road Trading Estate Warminster BA12 7BZ UK
Place of manufacture	As above
Test specimens assembled by (if not by roof product manufacturer)	As above
Thickness (overall depth of roof structure tested)	94 mm
Mass per unit area (overall value for the roof structure tested)	137.4 kg/m ²
Flame retardant treatment added, or organic content limited during production (yes/no), if yes give details	No
Harmonised EN product standard, and AVCP System No. if applicable	NA
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) - 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)	SureSet Barley Butter – Blend No. 2304 SureSet UK Ltd Polyurethane bound aggregate paving 23 - 26 mm 44.2 kg/m ² Light brown Uncured resin-coated aggregate trowelled in place in-situ and curing to a hard surface. NA None



Test sponsor (Company name and address): Sureset UK Ltd 32 Deverill Road Trading Estate, Warminster BA12 7BZ UK	
Product name of roof covering tested	SureSet Resin Bound Paving
Layer 2 - 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)	SureCell Sureset UK Ltd / Note 1 Stone-filled geocell drainage layer 52 mm 82.9 kg/m ² Natural / Black Loose laid and filled with stone chippings and compacted in-situ NA None
Layer 3 (eg "deck" or "substrate") - 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)	Far Eastern exterior grade plywood K-Sun Wood Company Ltd EN636 – 2S 18 mm 10.3 kg/m ² Natural Mechanically attached to roof with fixings NA None

Note 1: 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 the test specimens



Close up view of sample



Top of sample



Side of sample