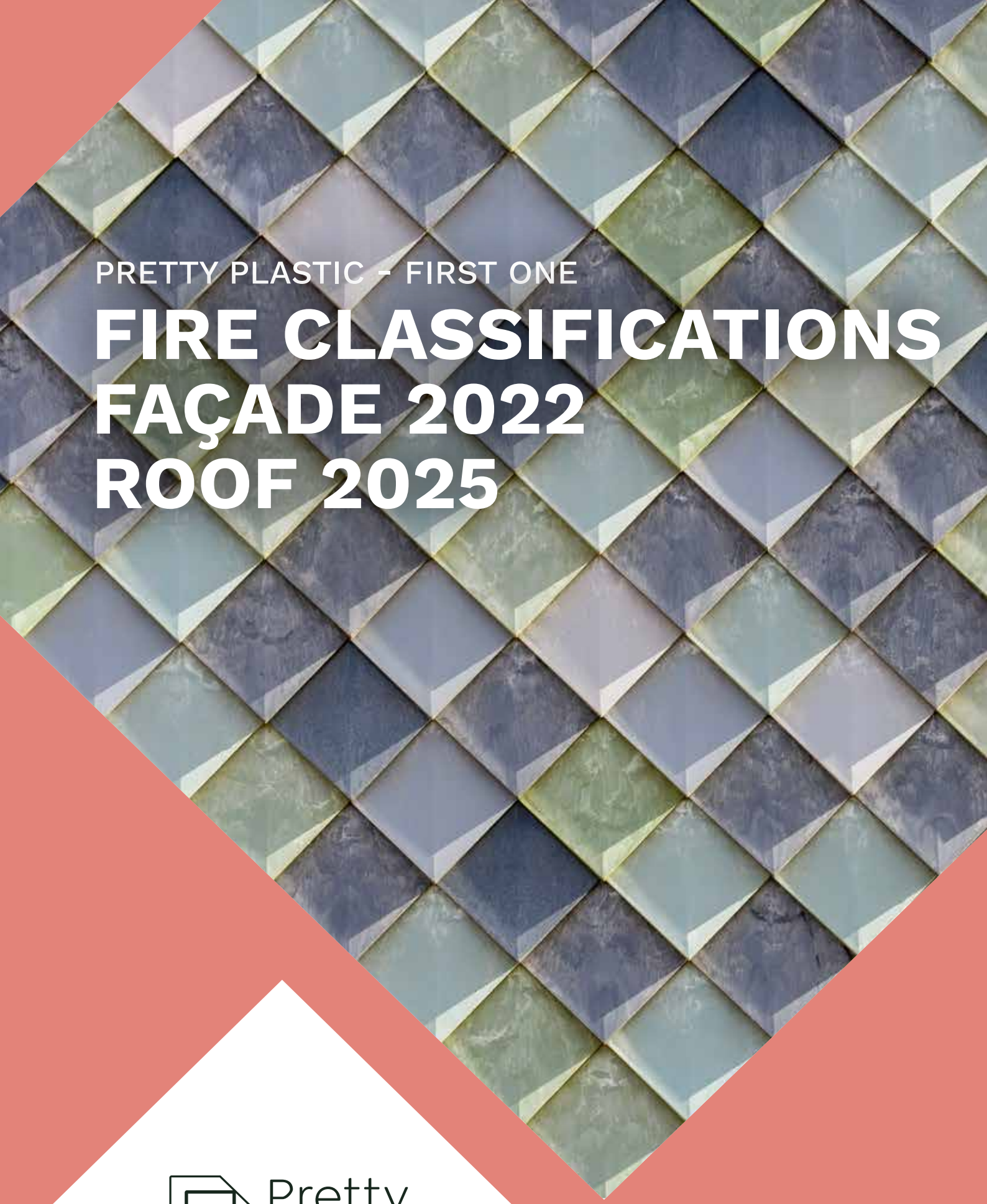

PRETTY PLASTIC - FIRST ONE

FIRE CLASSIFICATIONS FAÇADE 2022 ROOF 2025

Pretty Plastic

building from waste

Efectis Nederland BV
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Brandpuntlaan Zuid 16 | 2665 NZ Bleiswijk
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CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2018

Classification no.	2022-Efectis-R000279
Sponsor	Pretty Plastic B.V. Koopvaardersplantsoen75 1034 KE AMSTERDAM THE NETHERLANDS
Product name	**Pretty Plastic, recycled PVC slats**
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	A. González Santamaría M.Sc. A.J. Lock
Project number	ENL-22-000041
Date of issue	March 2022
Number of pages	5

1. INTRODUCTION

This classification report defines the classification assigned to **Pretty Plastic, recycled PVC slats** in accordance with the procedures given in EN 13501-1:2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, **Pretty Plastic, recycled PVC slats**, is defined as a façade covering.

2.2 MANUFACTURER

Pretty Plastic B.V.
Koopvaardersplantsoen75
1034 KE AMSTERDAM
THE NETHERLANDS

2.3 PRODUCT DESCRIPTION

According to the sponsor the product is composed of recycled PVC and additives.

PVC:
- >75% 1390-1450 kg/m^3;

Additives:
- PVC recyclaat additive 20%;
- Colour compound 3%;
- Impurities <1%;
- Moisture < 0.8%.

Mounted against Pine wood battens, thickness 40 mm and a density 450 kg/m^3.
Detailed datasheet in Appendix, 'Datasheet' in the test reports.

The product has a total thickness of 29 mm and a mass of approx.1348 kg/m^3, measured on the product.

3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

3.1 APPLICABLE (PRODUCT) STANDARDS

EN ISO 11925-2:2020	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
EN 13823:2020	Reaction to fire tests for building products - Building products, excluding floorings exposed to the thermal attack by a single burning item
EN 13238:2010	Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates
EN 13501-1:2018	Fire classification of construction products and building elements Part 1: Classification using data from reaction to fire tests

3.2 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	Pretty Plastic B.V. THE NETHERLANDS	2022-Efectis-R000277 2022-Efectis-R000278	EN ISO 11925-2:2020 EN 13823:2020

3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – maximum	Compliance with parameters
EN ISO 11925-2				
Surface flame impingement	Fs ≤150 mm	6	40	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	45	-
	Ignition of filter paper		-	Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
	$FIGRA_{0.2MJ}$ [W/s]	3	48	-
	$FIGRA_{0.4MJ}$ [W/s]		47	-
	THR_{600s} [MJ]		4.1	-
	LFS < edge		No	Compliant
	SMOGRA [m^2/s^2]		50.1	-
	TSP_{600s} [m^2]		519	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		 - -	 Compliant Compliant

3.4 CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Classification criteria			
Class Test method(s)	**B**	**C**	**D**
EN ISO 11925-2 Exposure = 30 s	$F_s \leq 150$ mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
EN 13823	$FIGRA_{0.2\,MJ} \leq 120$ W/s LFS < edge of specimen $THR_{600s} \leq 7.5$ MJ	$FIGRA_{0.4\,MJ} \leq 250$ W/s LFS < edge of specimen $THR_{600s} \leq 15$ MJ	$FIGRA_{0.4\,MJ} \leq 750$ W/s
Additional classification			
Smoke production	**s1** = SMOGRA ≤ 30 m^2/s^2 and $TSP_{600s} \leq 50$ m^2 ; **s2** = SMOGRA ≤ 180 m^2/s^2 and $TSP_{600s} \leq 200$ m^2; **s3** = not s1 or s2		
Flaming Droplets/particles	**d0** = no flaming droplets/ particles in EN 13823 within 600 s; **d1** = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s; **d2** = not d0 or d1.		

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2018.

4.2 CLASSIFICATION

The product, **Pretty Plastic, recycled PVC slats**, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s3

The additional classification in relation to flaming droplets / particles is:

d0

Reaction to fire classification: B – s3, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

Thickness	29 mm at thickest
Surface density	1348 kg/m^3
Colour	All colours

This classification is valid for the following end use applications:

Substrate	Non-combustible (class A1/A2, 870 ± 50 kg/m^3, according to EN 13238:2010)
Application	Façade covering
Air gap	Yes
Methods and means of fixing	The slats overlap each other and are screwed on 20x30 mm pinewood battens positioned in horizontal at a distance of 150 mm of each other. The pinewood battens are screwed to the substrate. A metallic square profile was positioned in the corner to provide stability to the long and short wing. The panels were positioned with a ventilated air gap of 40 mm to the backing board.
Joints	The joints due to the overlap of the slats
Other aspects of end use conditions	Screwed on 20x30 mm pinewood battens, non fire-retardant.

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

Consult classification standard and national laws and regulations for limitations on the period of validity of the classification.

5. LIMITATIONS

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

A. González Santamaría M.Sc.
Project leader Reaction to Fire

A.J. Lock
Manager Testing Reaction to Fire

Efectis UK/Ireland

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EXTERNAL FIRE EXPOSURE TO ROOF TEST REPORT No EUI-25-RT4-000218

Test report date: **04th July 2025**

Test Standard: **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

Other reference document: **BS EN 13238:2010** – Reaction to fire tests for building products – Conditioning procedures and general rules for selection of substrates

Product: Façade and roof cladding tile made from recycled PVC
Referenced: Pretty Plastic First One

Applicant: **PRETTY PLASTIC**
Karperweg 41
1075LB Amsterdam
NETHERLANDS

Testing laboratory: **EFECTIS UK/Ireland Limited**
Unit 15F, Kilroot Business Park, Larne Road
Carrickfergus,
Co Antrim - BT38 7PR
UNITED KINGDOM

1. DOCUMENT TRACKING

Revision Index.	Modification	Comments	Date		
0	Original document	/	04th July 2025	Writer	SACHIP
				Reviewer	SVE
				Approver	MKE

2. OBJECT

The results reported in this document are intended to determine the capacity to resist penetration by fire of the sample described in Section 3 using the external fire exposure to roofs test specified in **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

3. INFORMATION ABOUT THE TESTED PRODUCT

3.1. SAMPLING

The tested sample has not been subject of a sampling, thus the results apply to the sample as received.

3.2. DELIVERY

The specimens were supplied by the sponsor of the test and were received on the 10th of April 2025.

3.3. GENERAL INFORMATION ABOUT THE TESTED PRODUCT

The information below were provided by the applicant who attests their accuracy.

Manufacturer / Supplier	JPI POLYMERS B.V. Vliegeniersstraat 15, 5405 BH Uden, NETHERLANDS	
Identification of the product	Pretty Plastic First One	
General description	Description	Façade and roof cladding tile made from recycled PVC
	Thickness	430 mm
	Density	33.43 kg/m^3
	Mass per unit area	14.37 kg/m^2

Deviation:

- By applicant's request / with applicant's agreement, tests were conducted on a sample with reduced dimensions of 800 mm × 800 mm.

3.4. DETAILED DESCRIPTION OF THE LAYERS

3.4.1. Roof covering details

Layer	Characteristics	Value / Description	Unit
Roof slating	Material	Recycled Polyvinyl Chloride (PVC) tile	-
	Trade name	First One	-
	Manufacturer/supplier	Pretty Plastic B. V	-
	Thickness	29	mm
	Colour	Grey	-
	Coating reference and manufacturer/supplier (if applicable)	N/A	-
	Mass per unit area	24.4	kg/m²
	Density	1355	kg/m³
	Thermal conductivity	Not provided by the sponsor of the test	W/m.K
	PCS value	Not provided by the sponsor of the test	MJ/m²
	Reaction to fire classification, according to EN 13501-1	B-s3, d0	-
	Fire retardant treatment (if applicable)	N/A	-
	Fixing/application method	Fastened with screws	-
	Fixing reference and manufacturer/supplier (if applicable)	Spax TX Countersunk Self Drilling Stainless Steel Screws 5mm x 60mm	-

N/A: Not applicable

Layer	Characteristics	Value / Description	Unit
Tile batten	Material	SW Tile Battens	-
	Trade name	Pinewood 44x44 mm	-
	Manufacturer/supplier	PontMeyer	-
	Thickness	44	mm
	Colour	Natural wood uncoloured	-
	Coating reference and manufacturer/supplier (if applicable)	N/A	-
	Mass per unit area	5.9	kg/m²
	Density	460	kg/m³
	Thermal conductivity	Not provided by the sponsor of the test	W/m.K
	PCS value	Not provided by the sponsor of the test	MJ/m²
	Reaction to fire classification, according to EN 13501-1	Not provided by the sponsor of the test	-
	Fire retardant treatment (if applicable)	N/A	-
	Fixing/application method	Fastened with screws	-
	Fixing reference and manufacturer/supplier (if applicable)	Spax TX Flange Self Drilling Timber Screws 6mm x 140mm	-

N/A: Not applicable

Layer	Characteristics	Value / Description	Unit
Counter Battens	Material	SW Counter Battens	-
	Trade name	Pinewood 44x44 mm	-
	Manufacturer/supplier	PontMeyer	-
	Thickness	44	mm
	Colour	Plain wood	-
	Coating reference and manufacturer/supplier (if applicable)	N/A	-
	Mass per unit area	1.48	kg/m²
	Density	460	kg/m³
	Thermal conductivity	Not provided by the sponsor of the test	W/m.K
	PCS value	Not provided by the sponsor of the test	MJ/m²
	Reaction to fire classification, according to EN 13501-1	Not provided by the sponsor of the test	-
	Fire retardant treatment (if applicable)	N/A	-
	Fixing/application method	Fastened with screws	-
	Fixing reference and manufacturer/supplier (if applicable)	Spax TX Flange Self Drilling Timber Screws 6mm x 140mm	-

N/A: Not applicable

Layer	Characteristics	Value / Description	Unit
Membrane	Material	Breather Membrane	-
	Trade name	SIGA Majcoat 150	-
	Manufacturer/supplier	SIGA	-
	Thickness	Not provided by the sponsor of the test	mm
	Colour	White/grey	-
	Coating reference and manufacturer/supplier (if applicable)	N/A	-
	Mass per unit area	0.146	kg/m²
	Density	Not provided by the sponsor of the test	kg/m³
	Thermal conductivity	Not provided by the sponsor of the test	W/m.K
	PCS value	Not provided by the sponsor of the test	MJ/m²
	Reaction to fire classification, according to EN 13501-1	Class E	-
	Fire retardant treatment (if applicable)	N/A	-
	Fixing/application method	Brad nails	-
	Fixing reference and manufacturer/supplier (if applicable)	Not provided by the sponsor of the test	-

N/A: Not applicable

Layer	Characteristics	Value / Description	Unit
Rigid board	Material	Rigid board insulation roof sarking	-
	Trade name	Steico Universal Dry	-
	Manufacturer/supplier	Steico	-
	Thickness	40	mm
	Colour	Uncoloured	-
	Coating reference and manufacturer/supplier (if applicable)	N/A	-
	Mass per unit area	7.2	kg/m²
	Density	180	kg/m³
	Thermal conductivity	0.043	W/m.K
	PCS value	Not provided by the sponsor of the test	MJ/m²
	Reaction to fire classification, according to EN 13501-1	E	-
	Fire retardant treatment (if applicable)	N/A	-
	Fixing/application method	Fastened with screws	-
	Fixing reference and manufacturer/supplier (if applicable)	Spax TX Flange Self Drilling Timber Screws 6mm x 140mm	-

N/A: Not applicable

Layer	Characteristics	Value / Description	Unit
Mineral wool	Material	Mineral wool slab insulation	-
	Trade name	Rockwool Flexi plus	-
	Manufacturer/supplier	Rockwool	-
	Thickness	250	mm
	Colour	Uncoloured	-
	Coating reference and manufacturer/supplier (if applicable)	N/A	-
	Mass per unit area	10	kg/m²
	Density	40	kg/m³
	Thermal conductivity	0.034	W/m.K
	PCS value	Not provided by the sponsor of the test	MJ/m²
	Reaction to fire classification, according to EN 13501-1	A1	-
	Fire retardant treatment (if applicable)	N/A	-
	Fixing/application method	Loose laid	-
	Fixing reference and manufacturer/supplier (if applicable)	N/A	-

N/A: Not applicable

Layer	Characteristics	Value / Description	Unit
Air & vapour control layer	Material	Air and vapour control layer	-
	Trade name	Siga Majpell 5	-
	Manufacturer/supplier	Siga	-
	Thickness	0.4	mm
	Colour	White	-
	Coating reference and manufacturer/supplier (if applicable)	N/A	-
	Mass per unit area	0.146	kg/m²
	Density	Not provided by the sponsor of the test	kg/m³
	Thermal conductivity	Not provided by the sponsor of the test	W/m.K
	PCS value	Not provided by the sponsor of the test	MJ/m²
	Reaction to fire classification, according to EN 13501-1	E	-
	Fire retardant treatment (if applicable)	N/A	-
	Fixing/application method	Brad nails	-
	Fixing reference and manufacturer/supplier (if applicable)	Not provided by the sponsor of the test	-

N/A: Not applicable

Layer	Characteristics	Value / Description	Unit
Timber Support	Material	Timber batten	-
	Trade name	Pinewood 44x44 mm	-
	Manufacturer/supplier	PontMeyer	-
	Thickness	44	mm
	Colour	Natural wood uncoloured	-
	Coating reference and manufacturer/supplier (if applicable)	N/A	-
	Mass per unit area	5.9	kg/m²
	Density	460	kg/m³
	Thermal conductivity	Not provided by the sponsor of the test	W/m.K
	PCS value	Not provided by the sponsor of the test	MJ/m²
	Reaction to fire classification, according to EN 13501-1	Not provided by the sponsor of the test	-
	Fire retardant treatment (if applicable)	N/A	-
	Fixing/application method	Fastened with screws	-
	Fixing reference and manufacturer/supplier (if applicable)	Spax TX Flange Self Drilling Timber Screws 6mm x 140mm	-

N/A: Not applicable

4. TESTS

4.1. SPECIMENS PREPARATION

Specimens have been made by the applicant.

The dimensions have been checked as follows:

Sample Nr	Length (mm)	Width (mm)	Conformity C / NC
A	800	800	NC
B	800	800	NC
C	800	800	NC
D	800	800	NC

Deviation:

- By applicant's request / with applicant's agreement, tests were conducted on a sample with reduced dimensions of 800 mm × 800 mm.

4.2. CONDITIONING

Prior to tests, specimens have been conditioned at a temperature of (23 ± 2) °C and relative humidity of (50 ± 5) %, at least 48 h and until stabilisation of mass, according to BS EN 13238 standard.

4.3. TESTING

Stage 1 test have been performed on 19th May 2025.
Stage 2 test have been performed on 19th May 2025.

5. RESULTS

5.1. PRELIMINARY TEST (STAGE 1):

5.1.1. Results

Parameters	Test 1
Specimen reference	Pretty Plastic First One
Test date	19/05/2025
Sample number	D
Including of joint	No
Burning brand location	Centre
Tested pitch (°)	45°
Room temperature (°C)	20
Room relative humidity (%)	45
Duration of flaming (min:s) (If it exceeds 5 min)	No flaming observed
Flame spread in any direction (mm)	60 mm
Maximum flame spread > 381 mm	No
Time to penetration (min:s)	No penetration observed
Nature of penetration	N/A

N/A: Not applicable

5.1.2. Observation

No specific observation.

5.2. PENETRATION TEST (STAGE 2):

5.2.1. Results

Parameters	Test 1	Test 2	Test 3
Specimen reference	Pretty Plastic First One	Pretty Plastic First One	Pretty Plastic First One
Test date	19/05/2025	19/05/2025	19/05/2025
Sample number	A	B	C
Including of joint	No	No	No
Burning brand location	Centre	Centre	Centre
Tested pitch (°)	45°	45°	45°
Room temperature (°C)	23	20	21
Room relative humidity (%)	38%	45%	44%
Time to penetration by fire (min:sec)	≥ 60 min	≥ 60 min	≥ 60 min
Nature of fire penetration	N/A	N/A	N/A
Occurrence of melting	No	No	No
Production of flaming molten droplets or debris	No	No	No
Production of non-flaming molten droplets or debris	No	No	No
Time of mechanical failure or development of holes without penetration by fire	≥ 60 min	≥ 60 min	≥ 60 min

N/A: Not applicable

5.2.2. Observations

Test 1	
Time (min)	**Observation**
00 min 00 s	Sample exposed to radiant heat.
01 min 20 s	Smoke observed on the surface of the specimen.
02 min 10 s	Deformation/air gaps observed.
05 min 00 s	Application of the burning brand.
05 min 30 s	Cracks and Crackling noise observed on the surface of the specimen.
06 min 00 s	No sustained flaming observed during or after the application of the burning brand.
18 min 00 s	Smoke observed on the underside of the specimen.
29 min 30 s	Smoke observed on the underside of the specimen.
59 min 30 s	Smoke observed on the underside of the specimen.
60 min 00 s	End of the test.

N.N.T.R.: Nothing New To Report

Test 2	
Time (min)	**Observation**
00 min 00 s	Sample exposed to radiant heat.
01 min 18 s	Smoke observed on the surface of the specimen.
02 min 09 s	Deformation/air gaps observed.
05 min 00 s	Application of the burning brand.
05 min 30 s	Cracks and Crackling noise observed on the surface of the specimen.
06 min 00 s	No sustained flaming observed during or after the application of the burning brand.
18 min 00 s	Smoke observed on the underside of the specimen.
29 min 30 s	Smoke observed on the underside of the specimen.
59 min 30 s	Smoke observed on the underside of the specimen.
60 min 00 s	End of the test.

N.N.T.R.: Nothing New To Report

Test 3	
Time (min)	**Observation**
00 min 00 s	Sample exposed to radiant heat.
01 min 19 s	Smoke observed on the surface of the specimen.
02 min 11 s	Deformation/air gaps observed.
05 min 00 s	Application of the burning brand.
05 min 30 s	Cracks and Crackling noise observed on the surface of the specimen.
06 min 00 s	No sustained flaming observed during or after the application of the burning brand.
18 min 05 s	Smoke observed on the underside of the specimen.
29 min 30 s	Smoke observed on the underside of the specimen.
59 min 30 s	Smoke observed on the underside of the specimen.
60 min 00 s	End of the test.

N.N.T.R.: Nothing New To Report

6. CONCLUSIONS

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.
The attention is drawn on the fact that the results obtained with the sample being the subject of the present test report cannot be generalised without justification of the representativeness of the samples and tests.

Belfast, on 04th July 2025

SIGNED **APPROVED**

X Shaneer VELLUKKANDY

Project Leader
Signed by: Shaneer VELLUKKANDY

X Maurice McKEE

Testing Technical Supervisor
Signed by: Maurice McKee

APPENDIX A. PICTURES

A.1. STAGE 1 TESTS

SAMPLE D:

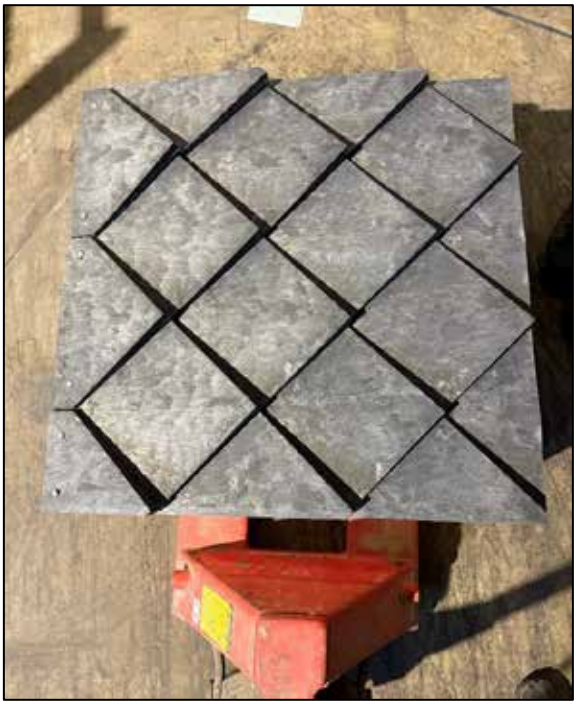

Figure 1: Sample before testing

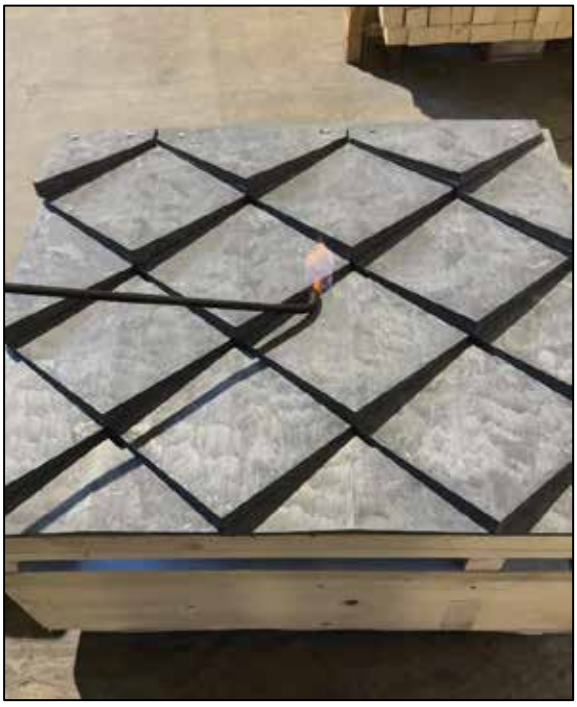

Figure 2: Sample during the application of the burning brand.

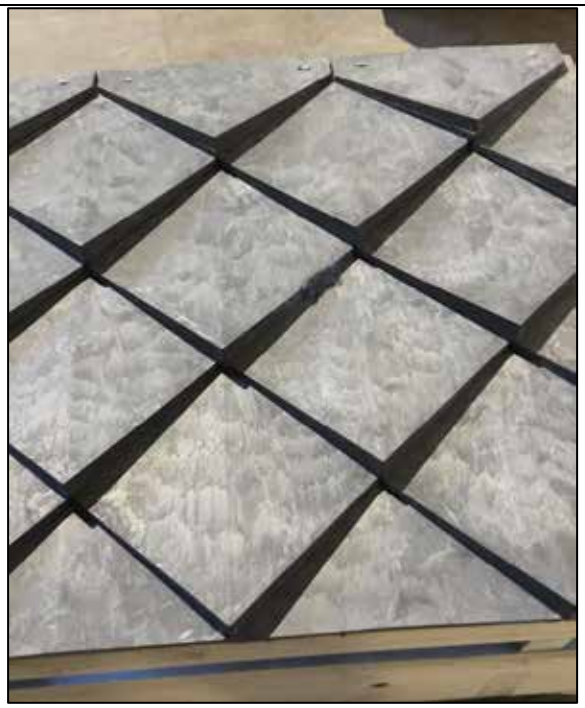

Figure 3: Sample after the application of the burning brand

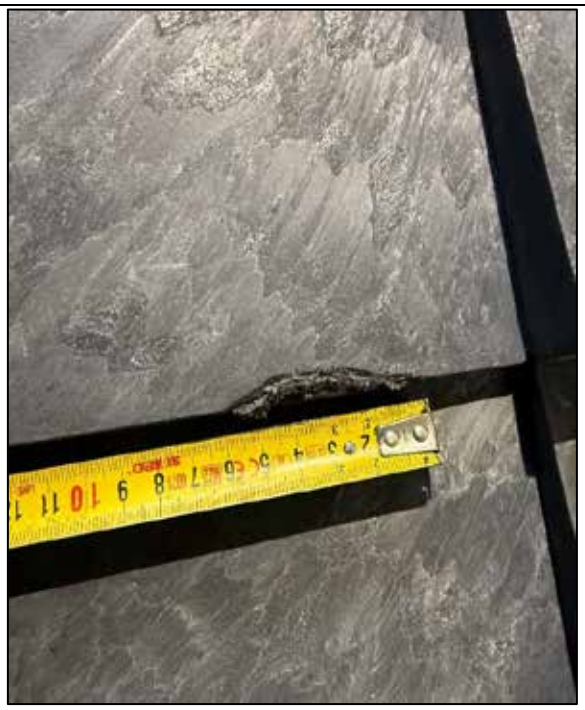

Figure 4: Damage investigation on the surface of the specimen

A.2. STAGE 2 TESTS

SAMPLE A:

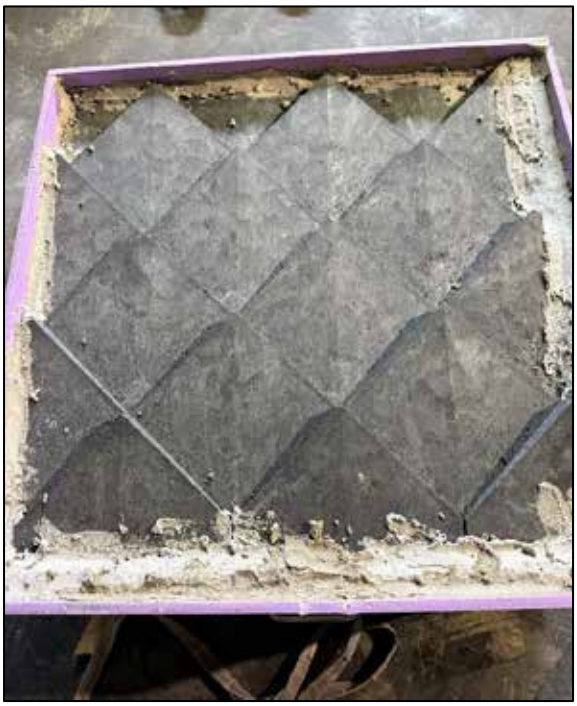

Figure 5: Sample before test

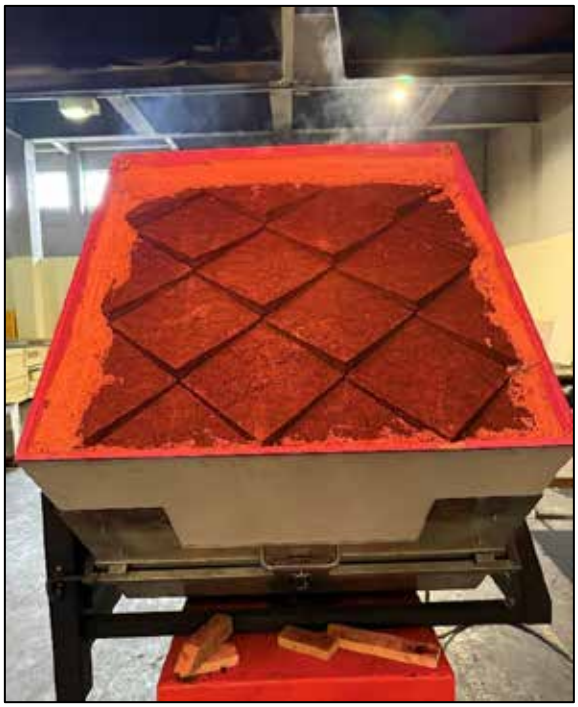

Figure 6: Sample during the test.

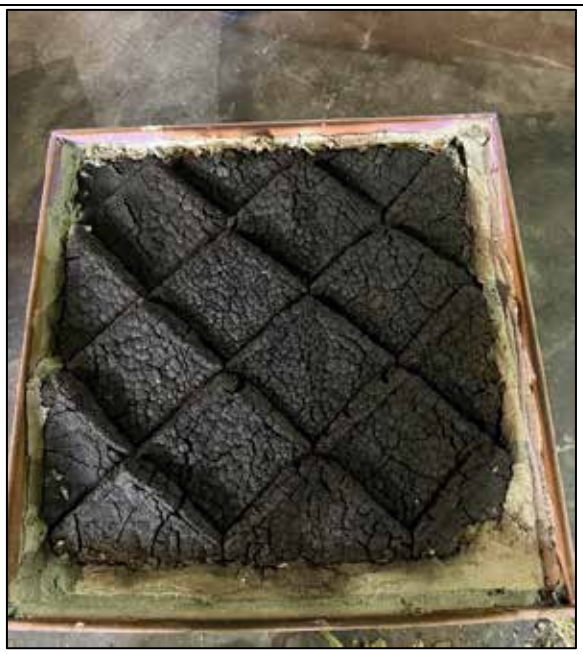

Figure 7: Damage investigation on the surface of the specimen

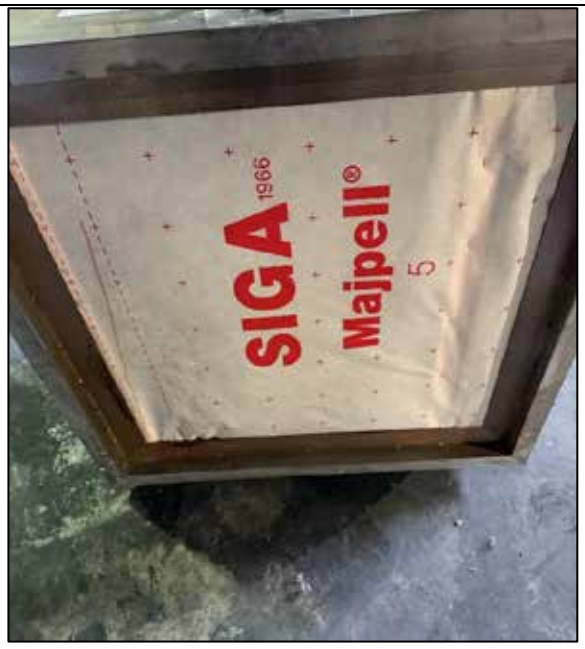

Figure 8: Damage investigation on the non-exposed side of the specimen

SAMPLE B:

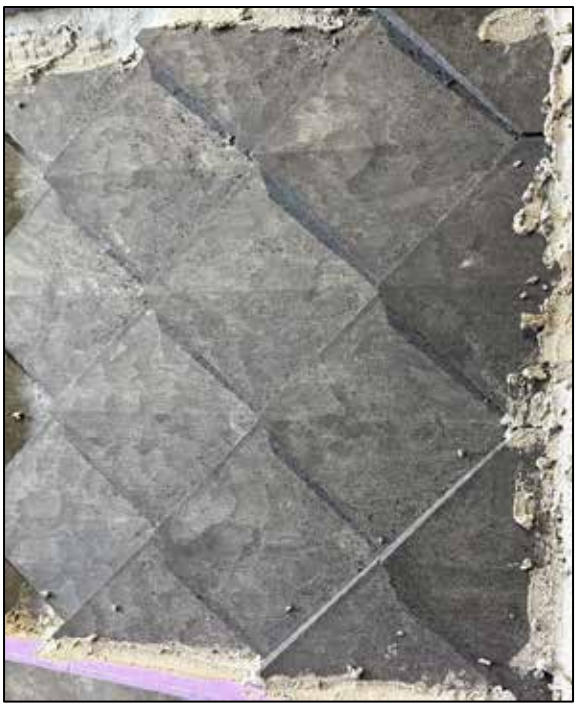

Figure 9: Sample before test

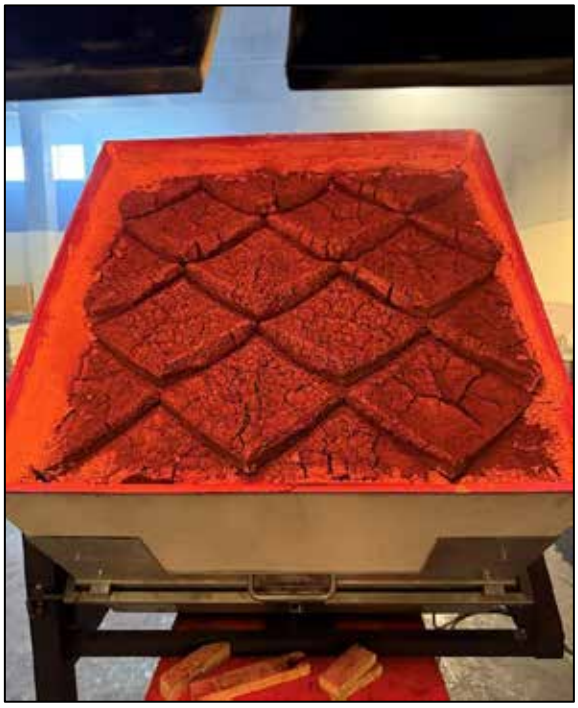

Figure 10: Sample during the test.

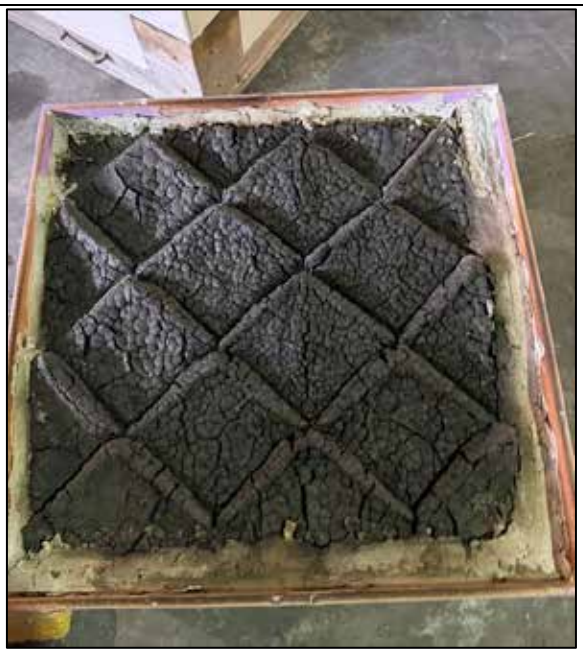

Figure 11: Damage investigation on the surface of the specimen

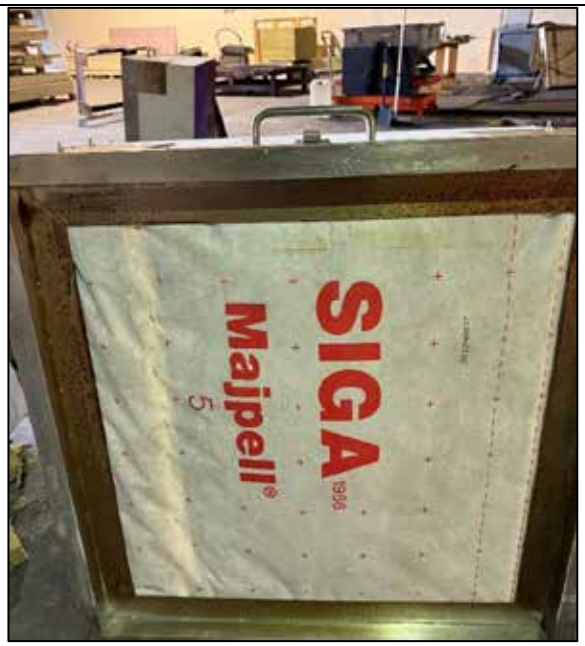

Figure 12: Damage investigation on the non-exposed side of the specimen

SAMPLE C:

Figure 13: Sample before test

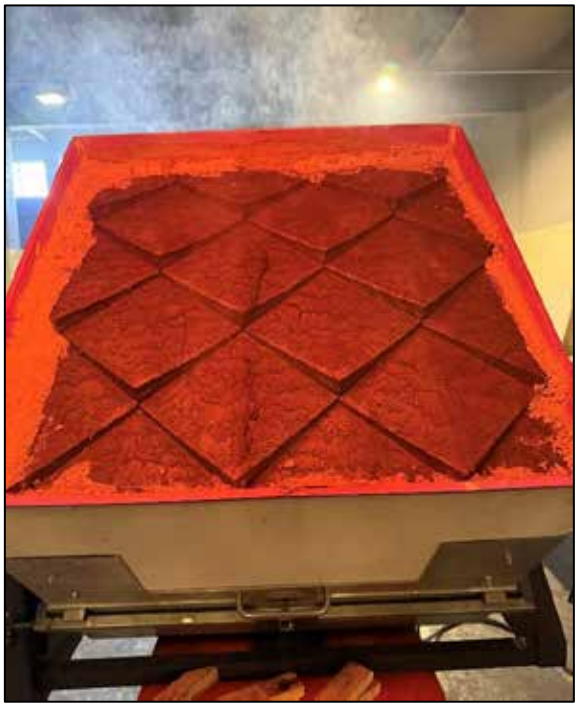

Figure 14: Sample during the test.

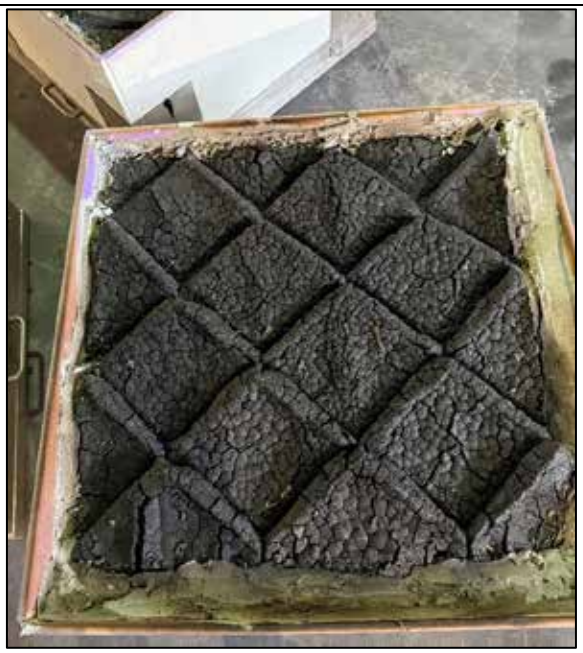

Figure 15: Damage investigation on the surface of the specimen

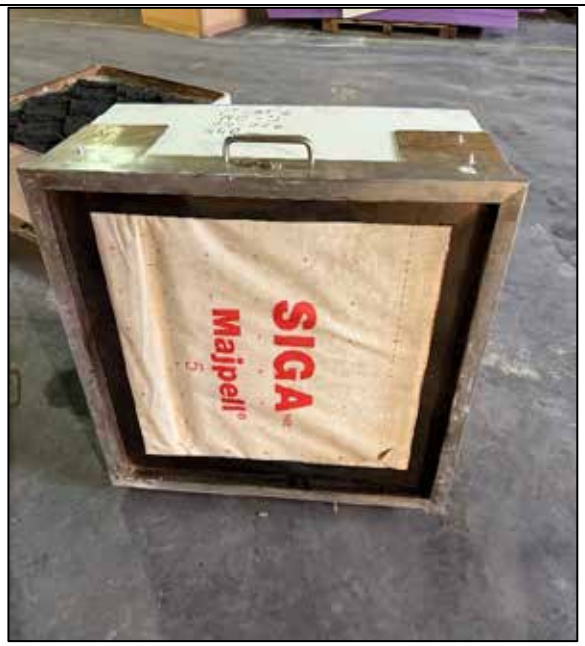

Figure16: Damage investigation on the non-exposed side of the specimen

END OF TEST REPORT