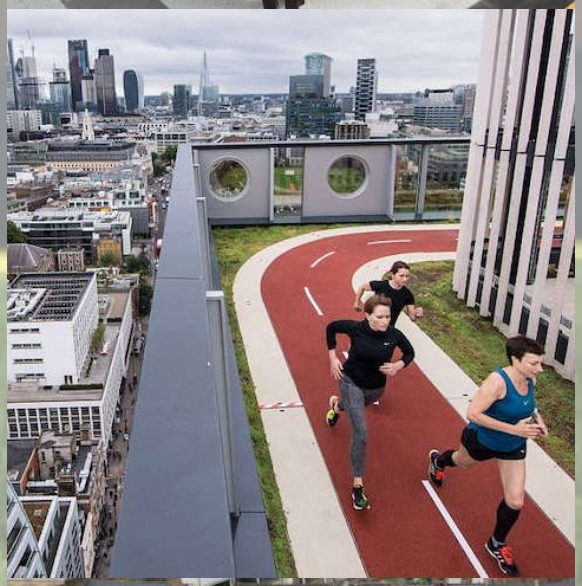
Sel Environmental

Sports & Landscape



Rooftop Facilities With A Surface of Your Choice

Sel excel at designing and constructing unique rooftop spaces for sport and leisure. Our sports surfaces are selected based on quality, robustness and permeability. All our surfaces are stringently tested in compliance with various sports regulations.

Fire Resistant Synthetic Grass Pitch System

SELSports offer a synthetic grass pitch system that meets the requirements of external fire exposure to roofs, BS 476-3:2004 and CEN/TS1187:2012 – Test 4, including EN 13501-5 T4 classification. This system has been independently tested and verified by the independent BRE Group, UKAS approved laboratory.

Polymeric Rubber

Compliant with IAAF/Sport England standards, can be used for a rooftop running track, rooftop MUGA, rooftop playground or as a safety surfacing.

www.selsports.co.uk

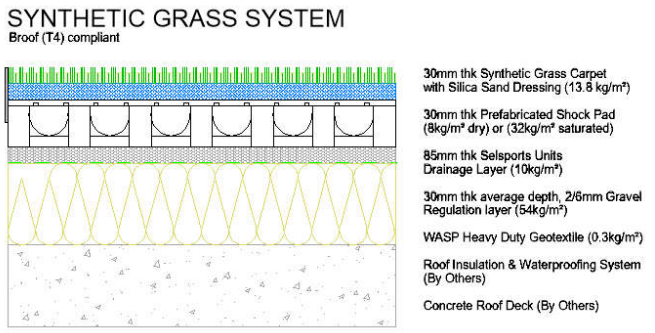
SEL Environmental Ltd
Canal House, Bonsall Street,
Blackburn, BB2 4DD

Call: 01254 589987

SELSPORTS
ROOFTOP SPORTS SURFACES

SYNTHETIC GRASS SURFACE

SELSports have installed many different types of synthetic grass surfaces on rooftops, such as 3G or sand filled/dressed. We can install any type of synthetic grass system, to suit whatever end use or whatever sports are to be played on the facility.



Typical Sythetic Grass Construction

SELSports have successfully delivered many rooftop installations and gained invaluable experience in overcoming the access limitations of these remote spaces. For instance synthetic grass rolls and shockpad can be cut into more manageable roll widths. Infill materials can be supplied in smaller sized bags. Providing materials in smaller units can also reduce the heavy plant requirement for installation. The SELSports Synthetic Grass system offers a very lightweight permeable sports facility.

Typical Loadings

- Synthetic Grass - 2kg/m²
- Sand infill 10-35kg/m²
- Rubber infill 10-20kg/m²
- Shockpad - Dry 8kg/m² / Wet 32kg/m²
- 85mm SELSports units - 10kg/m²
- 30mm 2/6mm regulating - 54kg/m²
- WASP HD Geotextile - 0.3kg/m²

Benefits

- An all-weather facility (except snow!!)
- Highly efficient permeable surface.
- Once installed requires little maintenance, no watering, no mowing.
- Sand-filled – good durable, all-round budget surface, ideal for tennis
- Sand-dressed – shorter, denser pile height with reduced sand infill, ideal for hockey
- Unfilled – designed to be watered prior to play; the ultimate playing surface ideal for hockey pitches
- Rubber / sand filled– for 3G pitches, longer pile height, ideal for football & rugby
- Lightweight for roof applications
- Potential attenuation of surface run-off or storage tank for rainwater recycling.

SELSports, Canal House, Bonsall Street,
Blackburn BB2 4DD Tel: 01254 589987

www.selsports.co.uk

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www.bre.co.uk

BRE Global Classification Report

Classification report for roofs/roof coverings exposed to external fire in accordance with EN 13501-5: 2016 on SELTurf 30 FRPV, 18 mm plywood deck

Prepared for: SEL Environmental Ltd

Date: Issue 1: 15 December 2021

Report Number: P121530-1005 **Test date: 12 October 2021**

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Watford, Herts
WD25 9XX

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Prepared for

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UKAS TESTING
0578

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Prepared by

Name P Potter

Position Senior Technician

Signature

Authorised by

Name J Hunter

Position Section Leader, Reaction to Fire

Date 15 December 2021

Signature

bre

Table of Contents

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BRE Global

EXTERNAL EXPOSURE TO FIRE CLASSIFICATION REPORT OF SELTurf 30 FRPV, 18 mm plywood deck

Classification report No.:	P121530-1005
Issue number:	1
Sponsor:	SEL Environmental Ltd, Canal House, Bonsall Street, Blackburn, Lancashire, BB2 4DD, UK
Product name:	SELTurf 30 FRPV
Prepared by:	BRE Global Ltd., Bucknalls Lane, Garston, Watford, WD25 9XX, England.
Notified Body Number	0832
Date of issue:	15 December 2021

This classification report consists of 15 pages and may only be used or reproduced in its entirety.

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1 Introduction

This classification report defines the classification (flat) assigned to roof/roof covering SELTurf 30 FRPV 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	SEL Environmental Ltd, Canal House, Bonsall Street, Blackburn, Lancashire, BB2 4DD, UK
Manufacturer of sample	SEL Environmental Ltd, Canal House, Bonsall Street, Blackburn, Lancashire, BB2 4DD, UK
Sample name/reference	SELTurf 30 FRPV
Sample description (as provided by test sponsor/manufacturer)	SELSports Rooftop Synthetic Grass System 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)	Artificial turf consisting of green plastic strips 0.35mm thick, approx. 26.0mm high. Attached to black flexible plastic base 1.3mm thick. Dry sand (included as part of specimen prior to delivery) stated to be 10kg/m^2 by client see Appendix A. Mineral wool insulation with light grey fabric facing thickness 28.5mm. Black moulded plastic grid in a 2 x 3 array. Thickness 85 mm (see photos). Plywood base 18.3mm thick
Sample receipt date	10 September 2021
Test face	Sand filled turf grass
Test format	The test was carried out in the flat position

Date of test	12 October 2021

3 Reports in support of classification

Name of Laboratory	Name of sponsor	Test report ref. no.	Test method
BRE Global	SEL Environmental Ltd	P121530-1004	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

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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	0 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												

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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 SELTurf 30 FRPV, 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 plywood.
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.

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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 Marnlx 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 Marnlx 17, B-1000, Brussels, Belgium. 2012.

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Appendix A Product description provided by the test sponsor

PRODUCT DEFINITION

Test sponsor: SEL Environmental Ltd, Canal House, Bonsall Street, Blackburn, Lancashire, BB2 4DD	
Product name of roof covering tested	SELTurf 30 FRPV
Product reference/number	SELTurf 30 FRPV
General description of roofing product tested and build up	SELSports Rooftop Synthetic Grass System
Manufacturer of the roofing product (Company name and address)	SEL Environmental Ltd
Place of manufacture	UK, EU
Test specimens assembled by (if not by roof product manufacturer)	Note 1
Thickness (overall depth of roof structure tested)	163mm (approx.)
Mass per unit area (overall value for the roof structure tested)	Note 1
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	No
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) Added - Name/reference - Mass per unit area - Colour	Note 2 Note 2 Tufted Synthetic Grass Carpet 32mm 3585 g/m² Mix of Field green and Olive green N/A N/A None Added Garside 2EW kiln dried silica sand 10kg per m² Yellow

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Test sponsor: SEL Environmental Ltd, Canal House, Bonsall Street, Blackburn, Lancashire, BB2 4DD		
Product name of roof covering tested		SELTurf 30 FRPV
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)	Note 2 Note 2 Stone wool shockpad and water retention layer 30mm 8.5kg/m² Natural / Blue Coating N/A N/A None added
Layer 3	- 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)	Note 2 Note 2 Polypropylene Geo-cellular unit 85mm 10kg/m² Black Connected together with interlocking ties None Added
Layer 4	- 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)	Plywood Note 1 Generic Product 18mm 600kg/m³ Natural N/A N/A None Added

Note 1: This information was not provided by the test sponsor.

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.

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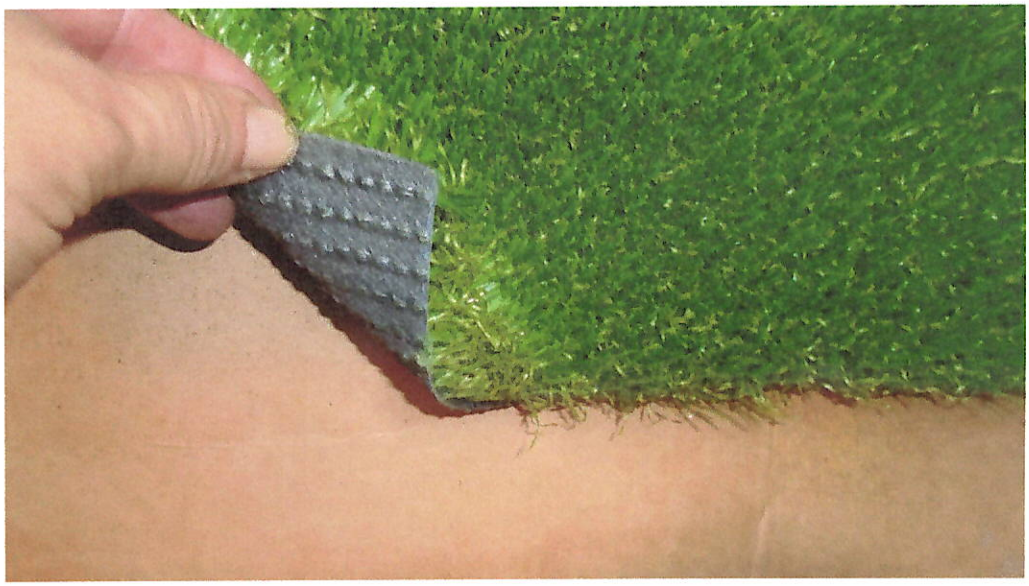
Appendix B Photographs of the test specimens



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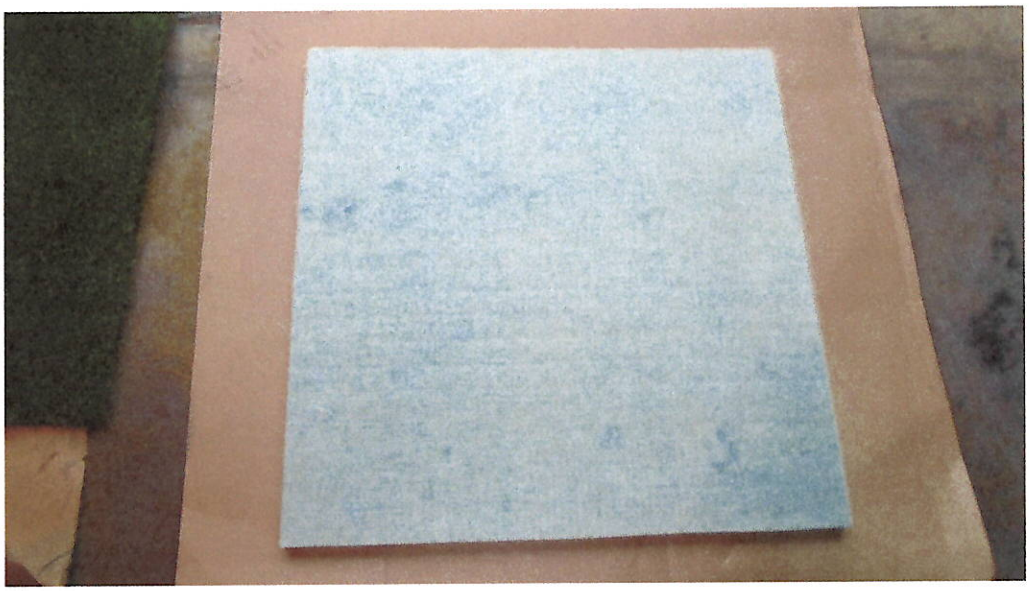

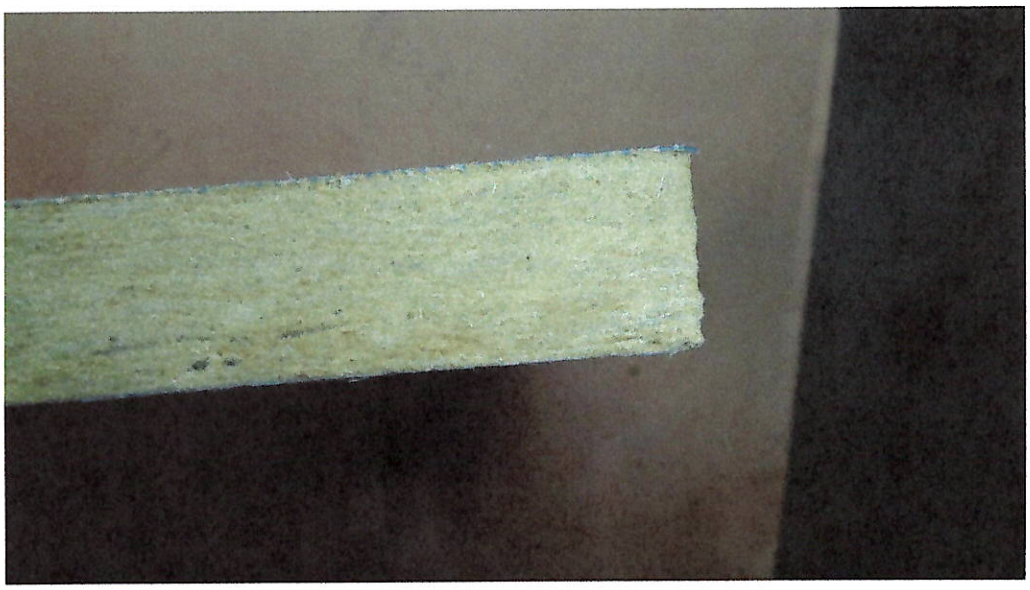

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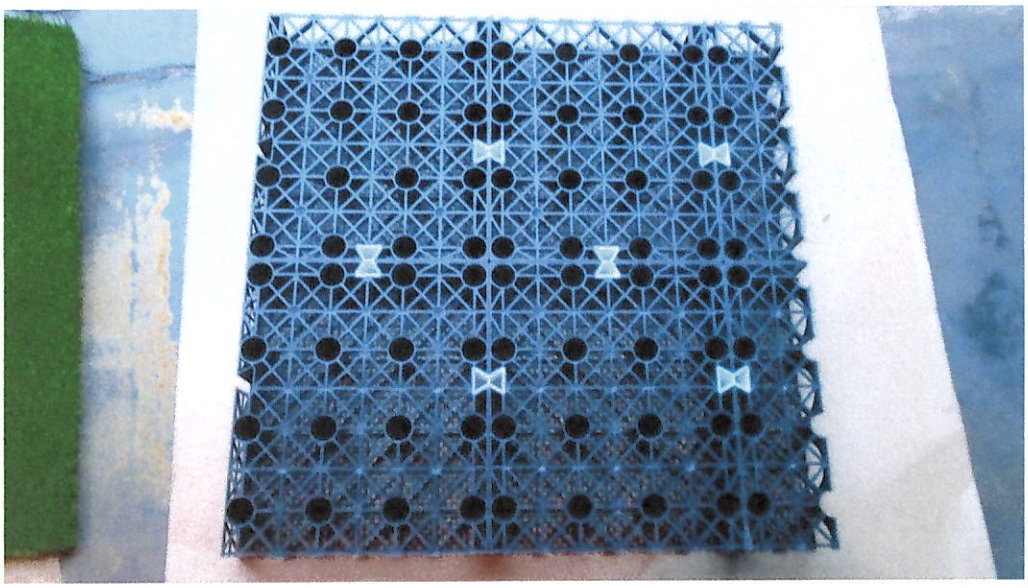

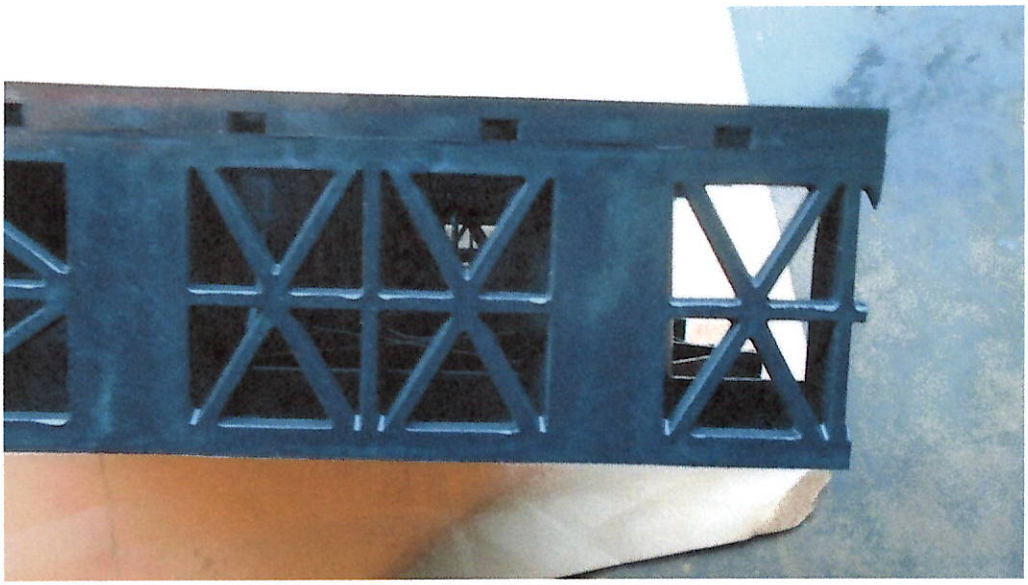

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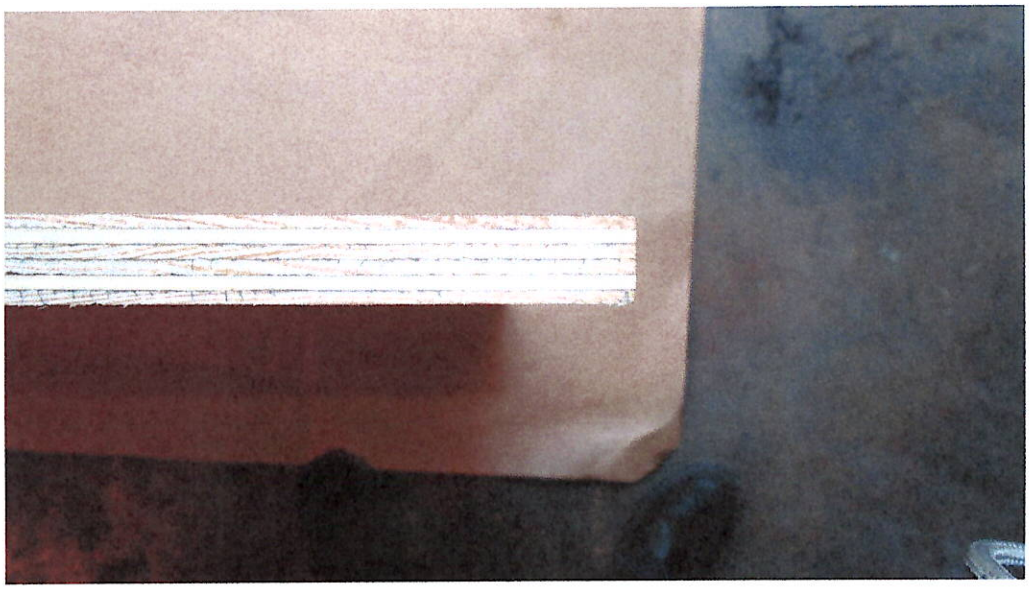

Report Ends