



NEMO | etc.

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ENGINEER

EVALUATE

TEST

CONSULT

Laboratory Report 4a-SSF-22-LSWUS-01.A

Pages = 4

Static Wind Uplift Testing

of

sofSURFACES Soft Surface Tile System

Panels SSF-B1

in accordance with

UL 1897

Prepared for: sofSURFACES Rubber Tile Solutions

4393 Discovery Line
Petrolia, ON
Canada N0N 1R0
c/o: Christopher Chartrand

Test Lab: NEMO | etc.

10 Mauney Court
Columbia, SC 29201

Date of Issuance: 2022-02-01



LABORATORY REPORT

CLIENT: sofSURFACES Rubber Tile Solutions
 c/o: Christopher Chartrand

SCOPE: 10 x 10-ft. simulated wind uplift testing of sofSURFACES Soft Surface Tile system in accordance with UL 1897.

TEST PROGRAM						
PROJECT NO.	MD NOTIFICATION	RECEIVED	TEST DATES		TECHNICIANS	WITNESSES
			START	END		
4a-SSF-22-LSWUS-01	NA	2021-12-17	2022-01-06	2022-01-24	C. Phillips Z. Taylor	-

SAMPLES	
TILE Soft Surface Tile	BY sofSURFACES
SHEET GOODS reinforced PVC membrane (60-mil)	BY Client-supplied, unlabeled
INSULATION Styrofoam™ RoofMate™	BY Dupont de Nemours
ADHESIVE / PRIMERS Sikaflex	BY Sika

TEST & EQUIPMENT LOG					
PROPERTY	STANDARD	EQUIPMENT	ASSET #	CALIBRATION	
				CURRENT	NEXT
Simulated uplift – 10 x 10	UL 1897	10X10 PRESSURE VESSEL Dwyer 475 MARK III manometer	0534	2021-04-02	2022-04-02

STANDARDS
UL 1897, Seventh Edition - <i>Standard for Safety Uplift Tests for Roof Covering Systems</i> , © 2015, UL LLC

1. STATIC WIND UPLIFT RESISTANCE – 10 x 10 FT: UL 1897

1.1 Specimen Preparation:

One specimen measuring 10 x 10-ft. is constructed for each assembly (Fig. 1), using specifications provided by client.



(Fig. 1 - Framed test specimen)


Specimens are allowed to cure 5-days at ambient conditions.

1.2 Procedure:

The simulated wind uplift pressure tests utilize the 10-ft. (7.3 m) long by 10-ft. (3.7 m) wide panel as a pressure vessel with the test panel forming the top side of the chamber.

A net pressure of 30 psf (1.4 kPa) is applied to the test sample and maintained for 1 minute. The pressure is increased in increments of 15 psf (0.7 kPa) and held for 1 min until failure occurs.

1.3 Results:

TABLE 1: TEST RESULTS, WIND UPLIFT 10 x 10 FT, PANEL SSF-B1		
COMPONENT	TESTED COMPONENT	ATTACHMENT
DECK:	19/32" Plywood	
WATERPROOFING:	reinforced PVC membrane (60-mil)	Loose-laid
INSULATION:	2-inch Styrofoam RoofMate (shiplap edges) staggered joints	Loose-laid
INSULATION 2:	2-inch Styrofoam RoofMate (shiplap edges) staggered joints	Loose-laid
DRAINAGE MAT:	reinforced PVC membrane (60-mil)	Loose-laid
TILE:	Soft Surface Tile	Loose-laid, joints sealed with Sikaflex, 12 linear ft./cartridge
Failing Pressure, psf:	120	
Failure Time, sec:	38	
Failure Mode:	Open of side joint	
Passing Pressure, psf:	105	
Allowable Design Pressure, psf:	-52.5	



2. CONCLUSIONS:

NEMO|etc. has conducted static wind uplift resistance testing of sofSURFACES Soft Tile System in accordance with UL 1897, with results presented herein.

Signed: 

Charles Phillips
Section Lead, Large-Scale Tests

Signed: 

Robert Nieminen, P.E.
President

REPORT HISTORY:

<u>Date</u>	<u>Event</u>	<u>Notes</u>	<u>Authorized By:</u>
2022-01-31	DRAFT 1 issued	For client review	RN
2022-02-01	FINAL issued	After client review	RN

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NE-RPT- 0003 Rev. D Date of release: 2021-07-14 Released by: MDA

Appendix 1: Statement of Limitation

Appendix 2: Decision Rule 1

-END OF REPORT-

APPENDIX 1: STATEMENT OF LIMITATION

The results presented are applicable solely to the products tested herein.

APPENDIX 2: DECISION RULE 1

All results reported to the client reflect observed values without incorporating measurement uncertainty. Determination of conformity to specifications will depend on acceptance limits, where results will be declared to pass if within the limits, and fail if outside the limits.