Bulletin

Roof Testing Laboratory

Roof System Dynamic Wind Uplift Resistance Results

File Number:	PTFS-240597-03-5100
Test Date:	2017-06-20
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Revision Date:	N/A
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FRANSYL

FULLY ADHERED TPO LEXCAN WITH ULTRASTICK AND LEXPHALT LG

(AARS) ADHESIVE APPLIED ROOFING SYSTEM

Roofing System Summary

Cap sheet membrane:	Single ply TPO membrane / Adhered with Ultrastick
Base sheet membrane:	N/A
Cover board:	Very high density polyisocyanurate board 1220 x 2440 x 6 mm (4' x 8' x ¼") / Adhered with Lexphalt LG
Insulation:	Polystyrene insulation board 1220 x 1220 x 76 mm (4' x 4' x 3") / Adhered with Lexphalt LG
Vapour barrier:	Self-adhesive membrane
Thermal barrier:	N/A
Decking:	Steel deck

Dynamic Uplift Resistance (DUR) as per CSA A123.21

System Designation	Measured Value	Computed Value (To Include 1.5 Experimental Factor)
A	-5,7 kPa (-120 psf)	-3,8 kPa (-80 psf)

Roof System Dynamic Wind Uplift Resistance Results

PTFS-240597-03-5100

Products

CAP SHEET MEMBRANE			
TESTED PRODUCT: Membrane composed of a polyester reinforcement encapsulated between two plies of thermoplastic polyolefin.			
System	**Application Method**	**Row spacing**	**Fasteners spacing**
A	Fully adhered	N/A	N/A
ELIGIBLE PRODUCT(S)			
Lexcan	TPO Hi-Tuff 1.5 mm (60 mil)		

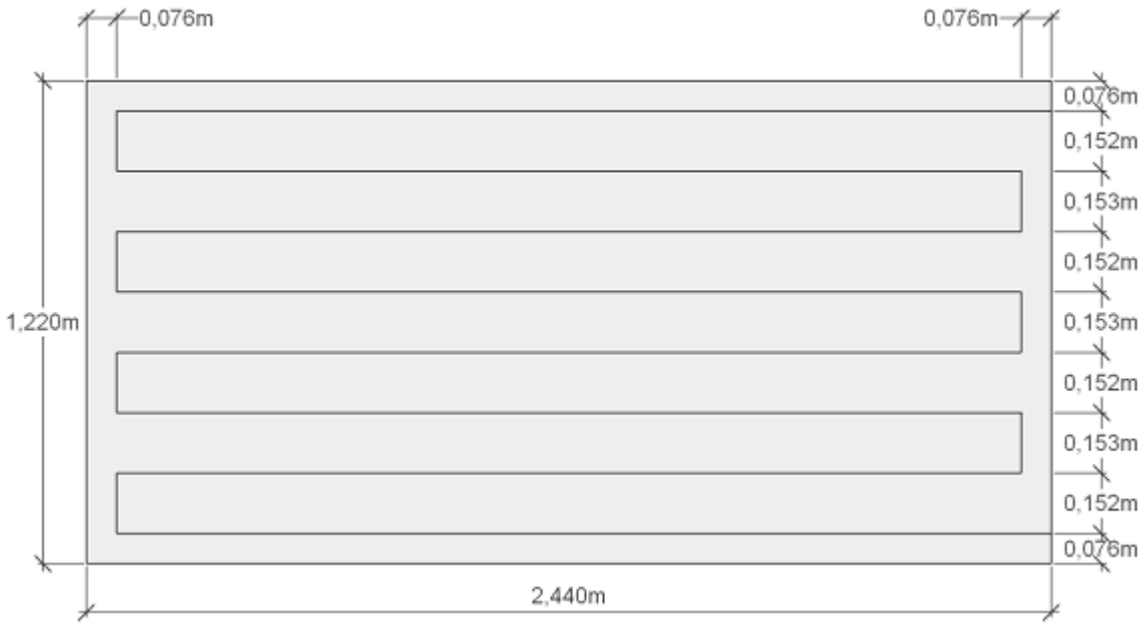
BASE SHEET MEMBRANE
TESTED PRODUCT: N/A

Roof System Dynamic Wind Uplift Resistance Results

PTFS-240597-03-5100

COVER BOARD		
TESTED PRODUCT: Polyisocyanurate foam core bonded between two ore-coated reinforced fiberglass mat.		
System	**Application Method**	**Fastening Rate**
A	Adhered with Lexphalt LG	Ribbons at 152 mm (6 in) o.c.
ELIGIBLE THICKNESS(ES)		
6 mm (¼ in)		
FASTENING METHOD		
Lexphalt LG adhesive		
FASTENING PATTERN		

System A



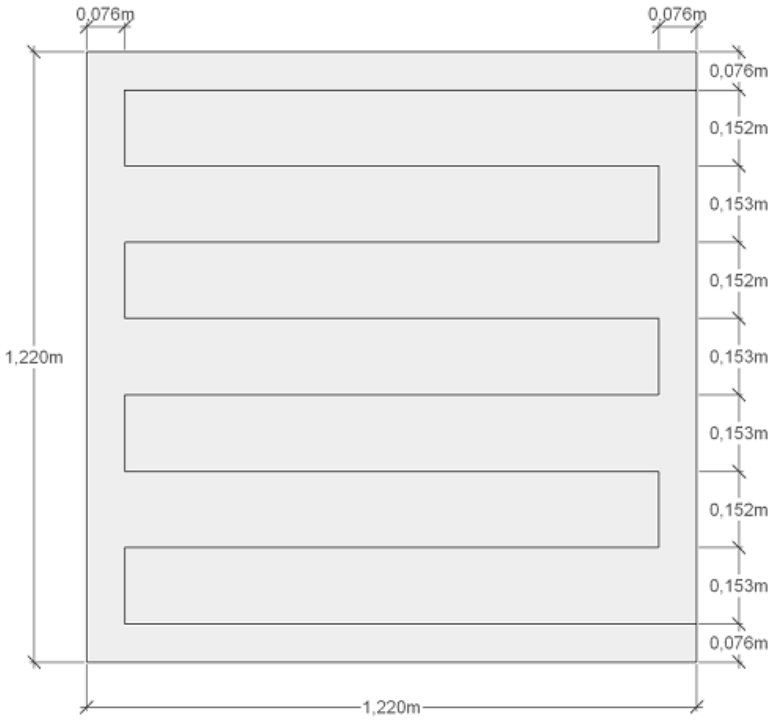
ELIGIBLE PRODUCT(S)				
Lexcor	Lexboard			

Roof System Dynamic Wind Uplift Resistance Results

PTFS-240597-03-5100

INSULATION (Top Row)		
TESTED PRODUCT: Expanded polystyrene insulation board		
System	**Application Method**	**Fastening Rate**
A	Adhered with Lexphalt LG	Ribbons at 152 mm (6 in) o.c.
ELIGIBLE THICKNESS(ES)		
76 à 203 mm (3 à 8 in.)		
FASTENING METHOD		
Lexphalt LG adhesive		
FASTENING PATTERN		

System A



ELIGIBLE PRODUCT(S)				
Fransyl	Izolon HR			

Roof System Dynamic Wind Uplift Resistance Results

PTFS-240597-03-5100

INSULATION (Bottom Row)
TESTED PRODUCT: N/A

VAPOUR BARRIER				
TESTED PRODUCT: Self-adhesive membrane composed of a non-asphaltic adhesive backing and a reinforced surface of woven polypropylene laminated with a non-woven polyester.				
System	**Fastening Method**		**Primer**	
A	Self-adhered		Ultrastick	
ELIGIBLE PRODUCT(S)				
Lexcor	Permate Stick			

THERMAL BARRIER
TESTED PRODUCT: N/A

FASTENERS
TESTED PRODUCT(S): N/A

ADHESIVE				
TESTED PRODUCT: membranes: aerosol adhesive consisting of a mixture of synthetic rubber in a non-chlorinated organic solvent.				
TESTED PRODUCT: board stock: one-component low-rise liquid polyurethane adhesive that cures with moisture.				
System	**Ribbon's spacing**		**Primer**	
A	Membrane and vapor retarder: full surface		N/A	
	Board stock: 152 mm (6 in) o.c.		N/A	
ELIGIBLE PRODUCT(S)				
Lexcor	Ultrastick			
Lexcor	Lexphalt LG			

Roof System Dynamic Wind Uplift Resistance Results

PTFS-240597-03-5100

General Notes

1. **Decking:**

   Tests were performed over a standard roll formed steel deck profile, with a galvanized or aluminum / zinc alloy coating finished, as per ASTM A653, A792, A1008 or CSSBI 10M standards, bearing a thickness of 0.76 mm (0.03 inch) minimum (commonly defined as 22 gauge), corresponding to the ASTM A653M grade SS 230, having a yield point of 230 MPa (33 ksi) and a tensile strength of 310 MPa (45 Ksi). Tests could be performed on concrete deck or standard 4′ x 8′ x ⅝″ plywood deck to assess eligibility for possible equivalencies.

   The deck's fastening to the supporting structure must be strong enough to resist wind uplift loads (as defined per NBC requirements).

2. **Deck equivalency products:**

   18 to 22 gage steel deck. Wood or concrete deck which testing gave equivalent or superior uplift resistance than the value specified in the "Fasteners Pull Out Resistance" section.

3. **Fasteners Pull Out Resistance:**

   Testing were conducted in laboratory according to ANSI/SPRI FX-1 2011 standard, over a minimum of 10 test samples on a ***Com-Ten*** apparatus over steel deck (unless stated otherwise).

4. **Adhesive Pull Resistance:**

   Testing were conducted in laboratory over 3 test samples, according to ANSI/SPRI IA-1 2010 standard on a ***Com-Ten*** apparatus over steel deck (unless stated otherwise) or, according to ASTM D1623 standard over a universal press testing bench, for in-between materials.

5. **Note on adhesive:**

   Follow all guide lines or supplementary instructions from the manufacturer regarding adhesive application.

6. **Equivalent products:**

   Only the products listed in this report under eligible products are deemed acceptable as substitute to the tested products. Any other modifications must be requested in written, on **exp** application form, to be studied for approval.

7. **Optional components:**

   Any components of this roofing system listed as optional, may be removed from the roof design. Inclusion or exclusion of the said component having no effect on the published dynamic uplift resistance results. (DUR).

8. **Experimental factor:**

   In accordance with CSA A123.21 standard, the published dynamic uplift resistance (DUR) include a computed experimental factor of 1,5.

9. **Building Wind Load Calculation:**

   An online calculator is available at http://www.exp.com/fr/rooftesting.

   The calculator will compute, the Wind Load of any given building, for field, perimeter and corners, as per 2015 CNB requirement, without experimental factor. It will also compute perimeter's and corner's zone dimensions.

10. Technical Advisories:

This roof system assessment reports must be read in conjunction with any issued technical advisories from **exp**.

11. Notice :

Exp reserves the right to withdraw, without prior notice, any Bulletin of Roof System Dynamic Wind Uplift Resistance Results published and/or make any necessary corrections.

12. Version tracking table:

2017-09-18	First edition

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