Bulletin

Roof Testing Laboratory

Roof System Dynamic Wind Uplift Resistance Results

File Numbers:	SOPI-223880-04 SOPI-223880-05
Test Dates:	2015-02-12 2015-03-26
Publication Date:	2015-09-24
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MOD-BIT SOPRALENE STICK HR GR ON WOOD DECK

(PARS) PARTIALLY ATTACHED (HYBRIDE) ROOFING SYSTEM

Roofing System Summary

Cap sheet membrane:	Modified bitumen membrane / Self-adhered
Base sheet membrane:	N/A
Cover board:	Composite board composed of a SBS modified membrane with polyester reinforcement factory laminated to a semi-rigid asphaltic board 914 x 2438 x 5,4 mm (3' x 8' x 7/32") / Mechanically fastened
Insulation:	Optional
Vapour barrier:	Optional
Thermal barrier:	Optional
Decking:	Wood

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

System Designation	Measured Value	Computed Value (To Include 1. Experimental Factor)
A	-2,7 kPa (-56 psf)	-1,8 kPa (-37 psf)
B	-4,5 kPa (-93 psf)	-3,0 kPa (-62 psf)

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Products

CAP SHEET MEMBRANE				
TESTED PRODUCT : Membrane composed of SBS modified bitumen and a composite fiberglass-polyester reinforcement				
System	**Application Method**		**Primer**	
A	Self-adhered		Resisto Exterior Primer	
B	Self-adhered		Elastocol Stick	
ELIGIBLE PRODUCT(S)				
Soprema	Sopralene Stick HR 20	Sopralene Stick HR 40		

BASE SHEET MEMBRANE
TESTED PRODUCT : N/A

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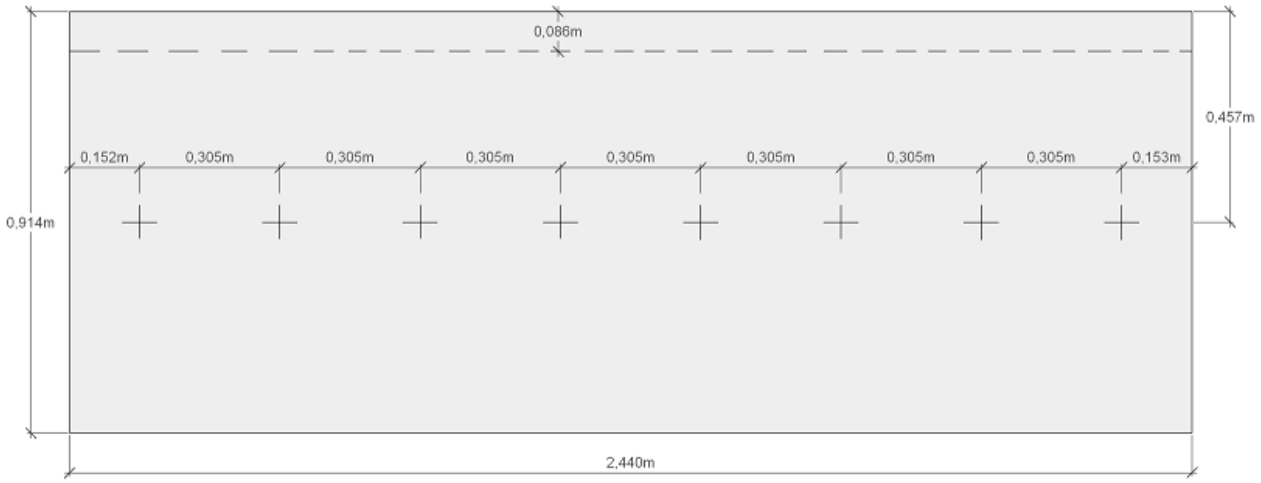
COVER BOARD		
TESTED PRODUCT : Composite board composed of a SBS modified membrane with polyester reinforcement factory laminated to a semi-rigid asphaltic board		
System	**Application Method**	**Fastening Rate**
A	Mechanically fastened	305 mm (12 in)
B	Mechanically fastened	152 mm (6 in)
ELIGIBLE THICKNESS(ES)		
Between 5,4 to 7,1 mm ($^{7}/_{32}$ to $^{9}/_{32}$ in)		
FASTENING METHOD		
Screws and plates		
FASTENING PATTERN		

System A



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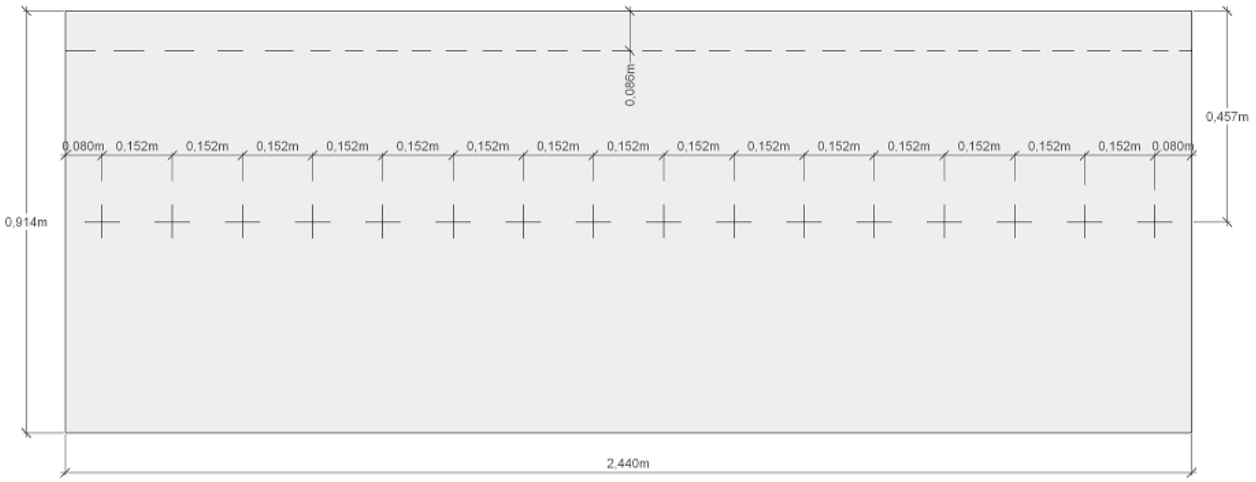
System B



ELIGIBLE PRODUCT(S)				
Soprema	Soprasmart Board 180 Sanded			

INSULATION (Top Row)
TESTED PRODUCT : Optional

INSULATION (Bottom Row)
TESTED PRODUCT : N/A

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FASTENERS PULL OUT RESISTANCE		
TESTED PRODUCT(S) : #14 roofing fasteners		
System	**Screws**	**Plates**
A, B	#14 x 51 mm (2 in)	Round barbed metal plates of 51 mm (2 in)
FASTENERS MEASURED PULL OUT RESISTANCE		
201 kgf (442 lbf)		
ELIGIBLE PRODUCT(S)		
Soprema	Soprafix #14	Round Soprafix metal plates

ADHESIVE
TESTED PRODUCT : N/A

VAPOUR BARRIER
TESTED PRODUCT : Optional

THERMAL BARRIER
TESTED PRODUCT : Optional

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General Notes

1. **Decking:**

   This test, performed by **exp** Services inc. («**exp**»), was carried over an exterior type Douglas Fir Plywood deck, of 16 mm (⅝ in.) minimum thickness, meeting CSA 0121, CSA 0151, CSA 0153 standards, EASY T&G and DFP grade, yielding a load limit of L/180; 6 kPa (125 psf).

   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:

2015-09-24	First edition
2017-05-25 (R1)	New presentation layout

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