Bulletin

Roof Testing Laboratory

Roof System Dynamic Wind Uplift Resistance Results

File Number:	SOPI-204337-14
Test Date:	2012-05-08
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SOPRABOARD ON WOOD DECK

(AARS) ADHESIVE APPLIED ROOFING SYSTEM

Roofing System Summary

Cap sheet membrane:	Modified bitumen membrane / Torch applied
Base sheet membrane:	Modified bitumen membrane / Torch applied
Cover board:	Semi-rigid board composed of a fortified asphaltic core 1220 x 1524 x 3,2 mm (4′ x 5′ x ⅛") / Adhered with Duotack
Insulation:	Polyisocyanurate foam insulation board 1220 x 1220 x 38 mm (4′ x 4′ x 1½") / Adhered with Duotack
Vapour barrier:	Self-adhesive membrane
Thermal barrier:	N/A
Decking:	Construction wood deck

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

System Designation	Measured Value	Computed Value (To Include 1.5 Experimental Factor)
A	-6,0 kPa (-125 psf)	-4,0 kPa (-83 psf)

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Products

CAP SHEET MEMBRANE				
TESTED PRODUCT : Membrane composed of a non-woven polyester reinforcement and SBS modified bitumen				
System	**Application Method**			
A	Torch applied			
ELIGIBLE PRODUCT(S)				
Soprema	Sopralene Flam 250 GR	Sopralene Flam 250 FR GR	Sopralene Flam 180 GR	Sopralene Flam 180 FR GR
	Sopraply Traffic Cap 560	Sopraply Traffic Cap FR 561	Soprafix Traffic Cap 660	Soprafix Traffic Cap FR 661
	Colvent Traffic Cap FR 861	Sopralene Mammouth GR	Sopralene Mammouth 5 mm	Soprastar Flam HD GR
	Soprastar Flam WF			

BASE SHEET MEMBRANE				
TESTED PRODUCT : Membrane composed of a non-woven polyester reinforcement and SBS modified bitumen				
System	**Application Method**		**Row spacing**	**Fasteners spacing**
A	Torch applied		N/A	N/A
ELIGIBLE PRODUCT(S)				
Soprema	Sopralene Flam 180	Sopralene Flam 250	Sopraply Torch Base 520	Elastophene Flam

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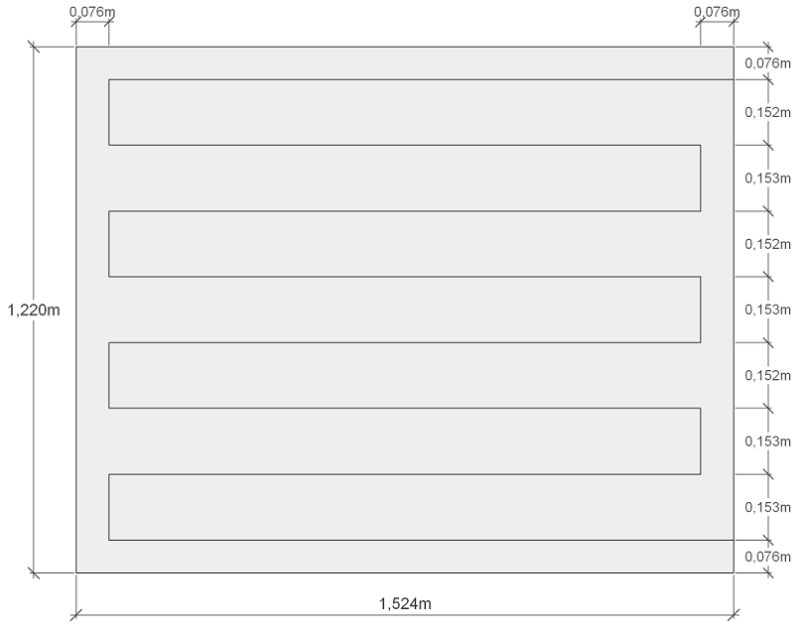
COVER BOARD		
TESTED PRODUCT : Semi-rigid board composed of a mineral-fortified asphaltic core between two asphalt-saturated glass mat reinforcement		
System	**Application Method**	**Fastening Rate**
A	Adhered with Duotack	Ribbons at 152 mm (6 in)
ELIGIBLE THICKNESS(ES)		
Between 3,2 to 6,4 mm (⅛ to ¼ in)		
FASTENING METHOD		
Duotack adhesive		
FASTENING PATTERN		

System A



ELIGIBLE PRODUCT(S)				
Soprema	Sopraboard			

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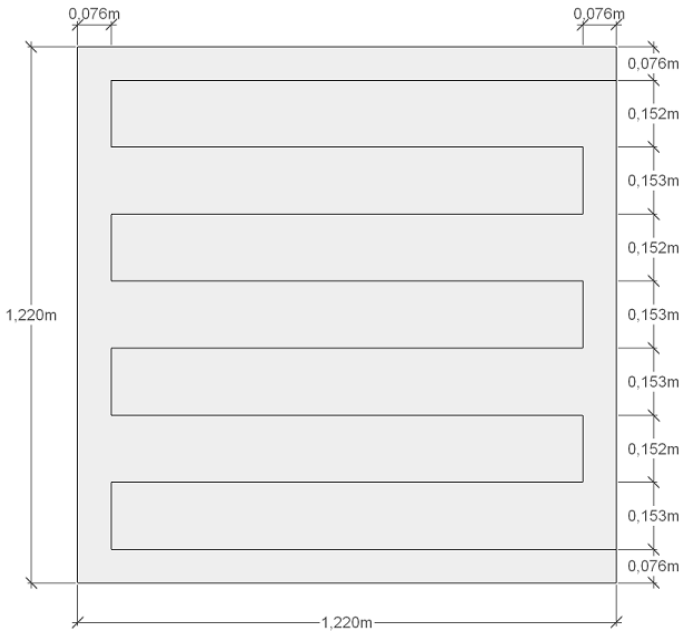
INSULATION (Top Row)		
TESTED PRODUCT : Polyisocyanurate foam insulation board laminated on both sides with fiber reinforced felt		
System	**Application Method**	**Fastening Rate**
A	Adhered with Duotack	Ribbons at 152 mm (6 in)
ELIGIBLE THICKNESS(ES)		
Between 38 to 102 mm (1½ to 4 in)		
FASTENING METHOD		
Duotack adhesive		
FASTENING PATTERN		

System A



ELIGIBLE PRODUCT(S)				
Soprema	Sopra-ISO	Sopra-ISO Plus		

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INSULATION (Bottom Row)
TESTED PRODUCT : N/A

FASTENERS PULL OUT RESISTANCE
TESTED PRODUCT(S) : N/A

ADHESIVE				
TESTED PRODUCT : Low-rise, two-component, polyurethane adhesive				
System	**Ribbon's spacing**		**Primer**	
A	152 mm (6 in)		Elastocol Stick (on wood deck)	
ELIGIBLE PRODUCT(S)				
Soprema	Duotack			

VAPOUR BARRIER				
TESTED PRODUCT : Self-adhesive membrane composed of a trilaminated woven polyethylene and SBS modified bitumen				
System	**Fastening Method**		**Primer**	
A	Self-adhered		Elastocol Stick (on wood deck)	
ELIGIBLE PRODUCT(S)				
Soprema	Sopravap'R	Sopralene Stick Adhesive		

THERMAL BARRIER
TESTED PRODUCT : N/A

General Notes

1. **Decking:**

   Tests were performed over an exterior Douglas Fir Plywood deck in accordance to CSA 0121, CSA 0151, CSA 0153 standards, EASY T&G, DFP, 19 mm (¾ in.) thick minimum 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 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 :

2013-03-22	First edition
2017-05-23 (R1)	New presentation layout

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