Bulletin

Roof Testing Laboratory (ISO 17025)

Roof System Dynamic Wind Uplift Resistance Results

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SIPLAST PARADIENE 30 TG / 20 TG OVER WOOD DECK

(PARS) PARTIALLY ATTACHED (HYBRID) ROOFING SYSTEM

Test conducted by Intertek-ATI, Pennsylvania

Tested Roofing System Summary

Cap sheet membrane:	Modified bitumen membrane / Fused
Base sheet membrane:	Modified bitumen membrane / Fused
Cover board:	Cover board composed of a fortified asphaltic core 4 x 5 ft x ¼ in / Mechanically fastened
Insulation:	N/A
Vapour barrier:	N/A
Thermal barrier:	N/A
Decking:	Plywood board

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

System Designation	Measured Value	Computed Value (To Include 1.5 Experimental Factor)
A	-2,2 kPa (-45 psf)	-1,4 kPa (-30 psf)

According to the scope of accreditation published on the SCC website
Accredited Laboratory No. 797

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Products

CAP SHEET MEMBRANE				
TESTED PRODUCT: Membrane composed of a lightweight random fibrous glass mat impregnated and coated with SBS modified bitumen and surfaced with ceramic granules.				
System	**Application Method**			
A	Fused			
ELIGIBLE PRODUCT(S)				
Siplast	Paradiene 30 TG	Paradiene 30 HT FR TG	Veral Aluminum	Parafor 50 LT
	Paradiene 20 PR TG	Paradiene 40 FR TG	Parafor 50 TG	Parafor 30 TG
	Paradiene 30 FR			
Siplast	Parapro			

BASE SHEET MEMBRANE				
TESTED PRODUCT: Membrane composed of a lightweight random fibrous glass mat impregnated and coated with SBS modified bitumen.				
System	**Application Method**		**Row spacing**	**Fasteners spacing**
A	Fused		N/A	N/A
ELIGIBLE PRODUCT(S)				
Siplast	Paradiene 20 TG	Paradiene 20 EG TG	Paradiene 20 HT TG	Paradiene 20 HT TG F
	Paradiene 20 HT TS	Paradiene 20 HT TS F	Paradiene 20 TG F	Paradiene 20 HV TG
Siplast (with Parapro only)	Pro Base TG			
Siplast (adhered with PA-311 R)	Paradiene 20 EG	Paradiene 20	Paradiene 20 F	Paradiene 20 HV

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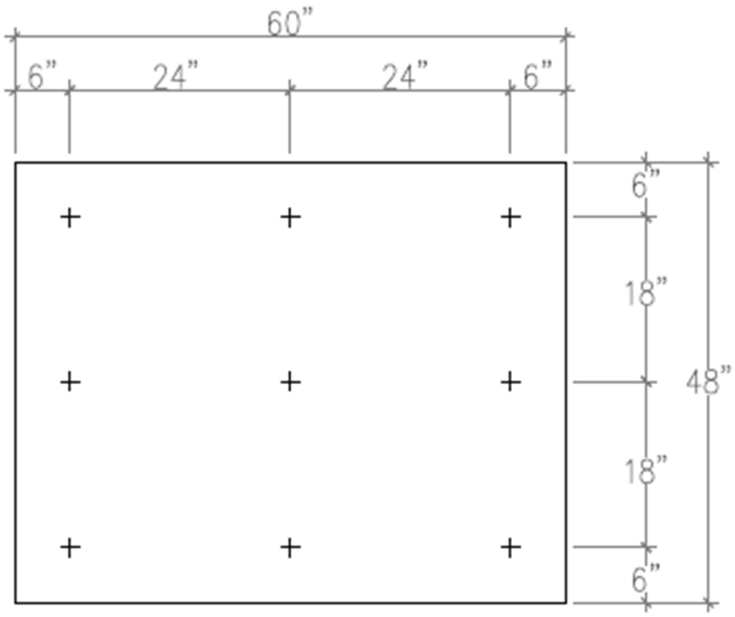
COVER BOARD		
TESTED PRODUCT: Cover board composed of a mineral-fortified asphaltic core between two layers of high-strenght reinforcing glass fiber mat.		
System	**Application Method**	**Fastening Rate**
A	Mechanically fastened	9 fasteners per 4 x 5 ft board
ELIGIBLE THICKNESS(ES)		
¼ in minimum		
FASTENING METHOD		
Screws and plates		
FASTENING PATTERN		



ELIGIBLE PRODUCT(S)				
IKO	Protectoboard			

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INSULATION (Top Row)
TESTED PRODUCT: N/A

ADDITIONAL INSULATION
TESTED PRODUCT: N/A

VAPOUR BARRIER
TESTED PRODUCT: N/A

THERMAL BARRIER
TESTED PRODUCT: N/A

FASTENERS (see general note #3)		
TESTED PRODUCT(S): #12 roofing fasteners.		
System	**Screws**	**Plates**
A	#12	Insulation metal plates of 2⅞ in
FASTENERS MEASURED PULL OUT RESISTANCE		
417 lbf		
ELIGIBLE PRODUCT(S)		
Siplast	Parafast-PA (pre-assembled)	

ADHESIVE
TESTED PRODUCT: N/A

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DECKING						
PRODUCT : Plywood board.						
Gauge	**Type**	**Grade**	**Thickness (in)**	**Yield point (ksi)**	**Span spacing (in)**	**Fasteners spacing (in)**
N/A	N/A	N/A	5/8	N/A	24	6
On a building, the attachment of the decking to the supporting structure must be strong enough to resist wind uplift loads (as defined per NBCC requirements).						

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General Notes

1. **Source:**

   This publication is based on a test conducted by **Intertek-ATI, Pennsylvania.**

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” 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 (when applicable):**

   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:**

   It is EXP opinion that the application of the adhesive beads in an "S" or straight-line arrangement will not affect the results of this publication. The intention at the job site should be that the glue bead spacings be reasonably distributed on the substrate, in order to come as close as possible to the theoretical patterns when the boards are laid in. Comply with all additional manufacturer's requirements regarding the use of adhesives.

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 https://www.nrc-cnrc.gc.ca.

   The calculator will compute, the Wind Load of any given building, for field, perimeter and corners, as per 2015 NBCC 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.

The information in this roofing system report (the “Report”) are based on the tests run by EXP of certain combination of materials in a specific and controlled condition to determine the resistance of different roofing systems to wind uplift forces (the "Test"). The results of the Test are subject to certain prerequisite conditions and assumptions made during the Test. In this regard, the Report is for the exclusive use of EXP client for whom the Report was prepared. The information contained in the Report must not be reproduced, used or relied upon in whole or in part without the written consent of EXP. Any third-party user assumes sole responsibility for the use it makes of the information in the Report including but not limited to any decision to purchase roofing material in reliance of the information found in the Report or on the Site. **Exp disclaims all warranties as to the accuracy, completeness or adequacy of the information in the Report or on the Site and accepts no responsibility for damages suffered by any third party arising out of decisions made or actions based on the Report.**

12. Version tracking table:

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