Roof System Assessment Report of Wind Uplift Resistance (ISO 17025)

Document Number:	PUB-DRU293332
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Revised:	2015-04-28
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Supplier:

Mod-Bit Securock-Soprarock DD+ Duotack partially adhered System, Partially Adhered Roofing System (PARS)

Roofing System Summary :

- Cap sheet membrane: Modified Bituminous membrane or allowable products
- Base Sheet Membrane: Modified Bituminous membrane or allowable products
- Cover board: Mineral wool board insulation
- Insulation: Polyisocyanurate or allowable products
- Insulation: Polystyrene or allowable products
- Vapour barrier: Membrane or allowable products
- Thermal barrier: Gypsum board or allowable products
- Decking: Steel Deck

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

Description	Test observation reading	With SF of 1.5
System A	-4.3 kPa (-90 psf)	**-2.9 kPa(-60 psf)**

Note :

Allow products:
Only equivalent products included into the roofing system's report are admissible.

Optional components:
Components of the roofing system designated as optional may be included or excluded from the roofing system which will not change the published dynamic uplift resistance (DUR).

Safety factor:
As required by in the CSA A123.21 Standard, the published dynamic uplift resistance (DUR) are reduced by a safety factor of 1.5 (SF of 1.5)

Admissible wind uplift load calculation:
An online calculator is available at www.sigders.ca. The user will have to provide the following information:

- building location;
- building geometry;
- building exposure;
- building openings;
- building importance factor.

The calculator will display the allowable design load of the roof's field surface, edges and corners as well as the dimensions of the edge and corner zones.

Technical Advisories:
Assessment reports must be read in conjunction with technical advisories issued by **exp** Services Inc.

Values
For this document, the metric values are the standard and values in parentheses are for information only.

Notice
Exp Services Inc. reserve their right to withdraw, without prior notice, the test report performed as per CSA A123.21 Standard.

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Roofing System's Specific Data:

Cap Sheet Membrane:

- Allowable products:	**Soprema**		
	Sopralene Flam 180 GR	Sopralene Flam 250 GR	Soprastar Flam HD GR
	Sopralene Flam 180 FR GR	Sopralene Flam 250 FR GR	Soprastar Flam HD FR GR
	Sopralene Mammouth GR	Sopraply Traffic Cap 560	Sopraply Traffic Cap FR 561
- **Attachment mode:**	**Heat welded**		

Base sheet membrane:

- Allowable product:	**Soprema**		
	Sopralene Flam 180	Elastophene Flam	Sopraply Base 520
	Sopralene Flam 250		
- **Attachment mode:**	**Heat welded**		

Cover board:

- Allowable products:	**Soprema**		
	Soprarock DD +		
- Allowable thickness:	Between 50 mm (2 in.) to 203 mm (8 in.)		
Adhered Attached Pattern	Adhesion mode	Adhesive spacing	
For System A result	**Ribbons**	**305 mm (12 in.) o.c.**	
- Attachment type:	Duotack		
- Attachment supplier:	**Soprema**		

Insulation First row:

- Allowable products:	**Soprema**		
	Sopra-Iso	Sopra-Iso +	
	Atlas Roofing Corp.		
	ACFoam II	ACFoam III	ACFoam IV
	Johns Manville		
	ENRGY 3	ENRGY 3 CGF	
	Hunter Panels		
	H-Shield	H-Shield CG	
- Allowable thickness:	Between 25 mm (1 in.) and 203 mm (8 in.)		
Adhered Attached Pattern	Adhesion mode	Adhesive spacing	
For System A result	**Ribbons**	**305 mm (12 in.) o.c.**	
- Attachment type:	Duotack		
- Attachment supplier:	**Soprema**		

Insulation Second row:

- Allowable products:	**Generic**		
	Polystyrene Type II		
	Soprema		
	Sopra-Iso	Sopra-Iso +	
	Atlas Roofing Corp.		
	ACFoam II	ACFoam III	ACFoam IV
	Johns Manville		
	ENRGY 3	ENRGY 3 CGF	
	Hunter Panels		
	H-Shield	H-Shield CG	
- Allowable thickness:	Between 25 mm (1 in.) and 203 mm (8 in.)		
Adhered Attached Pattern	Adhesion mode	Adhesive spacing	

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For System A result	**Ribbons**	**305 mm (12 in.) o.c.**
- Attachment type:	Duotack	
- Attachment supplier:	**Soprema**	

Vapour Barrier:

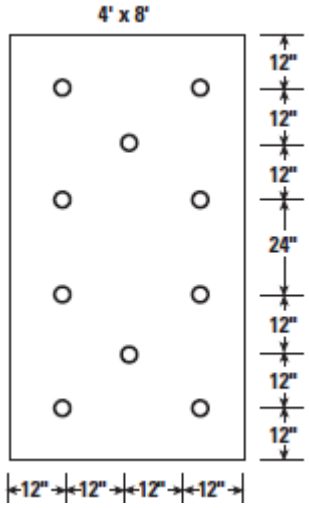
- Allowable products:	**Soprema**	
	Sopralene SP 3.5 mm	Sopralene SP 2.2 mm
- **Attachment method:**	**Heat welded (required a primed on allowable thermal barrier or concrete deck with Elastocol 500)**	

Or Vapour Barrier optional:

- Allowable products:	**Soprema**	
	Sopravap'R	Sopralene Stick Adhesive
- **Attachment mode:**	**Adhered** (Primer required on allowable thermal barrier, wood deck and concrete deck with Elastocol stick or Elastocol Stick Zero)	
- Attachment type:	Self-adhering membrane	

Thermal barrier:

- Allowable product:	**CGC / USG**		
	Securock Gypsum Fiber Roof Board		
	Unifix		
	PermaBase Dek		
- Allowable thickness:	Between 6.3 mm (¼ in.) to 25 mm (1 in.)		
Mechanically attached Pattern	Row spacing	Fasteners spacing	
for System A result	**10 fasteners and plates per 32 f²**	**As drawing fastener pattern A**	
- Attachment type:	Fasteners #14 with #3 deep recesses Phillips head composed of hardened carbon steel and covered with an anticorrosion coating. 20 gauges rounds plate of 73 mm (2 7/8 in.), with Galvalume finish		
- Pullout fastener resistance:	**214** psi or **442** lbf or **1967** Newton		
- Attachment supplier:	**Soprema**		



Drawing fastener pattern A

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Decking:	
- Type:	Galvanized construction steel or coated with an aluminum/zinc alloy or PVC in accordance with ASTM A653, ASTM A792, ASTM A1008 or CSSBI 10M Standards.
- Supplier:	Generic
- Thickness:	0.76 mm (0.03 in.) minimum, with a yield strength of 230 MPa (33 ksi) and a tensile strength of 310 MPa (45 ksi) commonly defined as being of a 22 gauges minimum thickness.
- Attachment method:	The deck's fastening to the supporting structure must be strong enough to resist wind uplift loads (adjusted as per NBC requirements).
- Fastening uplift resistance (CSA S136.F04):	2.09 kN (470 pf)
- Equivalence:	Steel deck thickness of 18 to 22 gauges or wood deck or concrete deck with pullout resistance equal or higher than the Fastening uplift resistance specified above.