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

Document Number:	PUB-DRU241032
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Supplier:

Mod-Bit Soprasmart Board 180 Duotack adhered System, Adhesive Applied Roofing System (AARS)

Roofing System Summary :

- Cap sheet membrane: Modified Bituminous membrane
- Composite board: Factory laminated panel
- Insulation: Polyisocyanurate or allowable products
- Vapour barrier: Membrane or allowable products
- Thermal barrier: Optional
- Decking: Steel Deck

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

Description	Test observation reading	With SF of 1.5
System A	-5.4 kPa (-112 psf)	**-3.6 kPa (-75 psf)**
System B	-6.3 kPa (-131 psf)	**-4.2 kPa (-87psf)**
System C	-6.5 kPa (-135 psf)	**-4.3 kPa (-90 psf)**

Notes :

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**		

Composite board:

- Allowable products:	**Soprema**	
	Soprasmart Board 180	
Adhered Attached Pattern	Adhesion mode	Adhesive spacing
For System A result	**Ribbons**	**305 mm (12 in.) o.c.**
- Attachment type:	Duotack	
- Attachment supplier:	**Soprema**	
Adhered Attached Pattern	Adhesion mode	Adhesive spacing
For System B result	**Ribbons**	**152 mm (6 in.) o.c.**
- Attachment type:	Duotack	
- Attachment supplier:	**Soprema**	
Adhered Attached Pattern	Adhesion mode	Adhesive spacing
For System C result	**Ribbons**	**102 mm (4 in.) o.c.**
- Attachment type:	Duotack	
- Attachment supplier:	**Soprema**	

Insulation:

- 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	
	Plasti-Fab		
	PlastiSpan® HD Insulation		
- Allowable thickness:	Between 25 mm (1 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**		
Adhered Attached Pattern	Adhesion mode	Adhesive spacing	
For System B result	**Ribbons**	**152 mm (6 in.) o.c.**	
- Attachment type:	Duotack		
- Attachment supplier:	**Soprema**		
Adhered Attached Pattern	Adhesion mode	Adhesive spacing	
For System C result	**Ribbons**	**102 mm (4 in.) o.c.**	
- Attachment type:	Duotack		
- Attachment supplier:	**Soprema**		

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Vapour Barrier:

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

Or Vapour Barrier optional:

- Allowable products:	**Soprema**		
	Elastophene PS 2.2 mm	Sopralene 180 PS 3.5 mm	
- **Attachment mode:**	**Heat welded (Required a primer on allowable thermal barrier or concrete deck with Elastocol 500)**		

Thermal Barrier (optional): *See optional products table*

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 pull-out resistance equivalent to the Fastening uplift resistance specified above.

Optional Products Table:

Thermal barrier:

- Allowable products	**CGC / USG**		
	Securock Gypsum Fiber board		
	Unifix		
	PermaBase Dek		
- Allowable thickness:	Between 6.3 mm (¼ in.) to 15.9 mm (5/8 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**		
- Allowable thermal barrier and decks have to be primed(Optional for steel deck):	Elastocol Stick	Elastocol Stick Zero	