Roof System Assessment Report of Wind Uplift Resistance

Manufacturer:

SOPREMA INC.

Authorized membrane production sites: Drummondville, QC, Chilliwack, BC, Wadsworth OH, Gulfport MS

Roofing System Summary: « Securock and Sopraboard »

- Cap sheet membrane:	Sopralene Flam 250 GR or equivalent membrane
- Base sheet membrane:	Sopralene Flam 180 or equivalent membrane
- Support panel:	Sopraboard or equivalent product
- Insulation:	Sopra-ISO or equivalent product
- Vapour barrier:	Elastophene SP 2.2 mm or equivalent membrane
- Thermal barrier:	Securock Roof Board
- Decking:	Steel deck 22 gauge or equivalent

- Dynamic Uplift Resistance (DUR) as per CSA A123.21-10 standard:
  System A: -4.3 kPa (-87.3 psf)

- Notes:

Equivalent 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 Les Services **exp** inc.

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

Notice
Les Services **exp** inc. reserve their right to withdraw, without prior notice, the test report performed as per CSA A123.21 standard

Roofing System's Specific Data:

Cap Sheet Membrane:

- Cap sheet membrane:	Sopralene Flam 250 GR
- Membrane description:	SBS modified bitumen membranes with non-woven polyester reinforcement which under-surface is covered with a thermofusible plastic film and the upper-surface is protected with coloured granules.
- Equivalents:	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 GR, Soprastar Flam HD GR, Soprastar Flam WF
- Attachment method:	Welded

Base Sheet:

- Base sheet membrane:	Sopralene Flam 180
- Membrane description:	SBS modified bitumen membranes with non-woven polyester reinforcement witch have booth surfaces is covered with a thermofusible plastic film.
-Equivalents :	Sopralene Flam 250, Sopraply Torch Base 520, Elastophene Flam
- Attachment method:	Welded

Support panel :

- Type :	Sopraboard
-Fournisseur :	Soprema
- Description:	Sopraboard is a semi-rigide panel, composed of a mineral fortified asphaltic core formed between two saturated fiberglass felt.
-Thickness	3,2 mm (1/8 in.), 4,8 mm (3/16 in.) ou 6,4 mm (1/4 in.)

- Adhesive method	Spacing		Dynamic Ulift Resistance (DUR) :	
	Duotack	Other	Observed on test	With SF of 1,5
- Système A :	305 mm (12 in.) c.c.	N/A	-6,3 kPa (-131 psf).	-4,3 kPa (-87,3 psf)

- Adhesive type :	Duotack is a low-rise two-part urethane adhesive. It can be used to adhere insulation apnel on surface such as wood, cement, metal and on roofing elastomeric systems and asphaltic systems too.

Insulation:

- Insulation type:	Polyisocyanurate, Sopra-ISO
- Supplier:	Soprema Inc.
- Insulation description:	Composed of polyisocyanurate plastic foam inserted between two facers with a compressive strength of 138 kPa (20 psi) in accordance with the ASTM D 1621 standard
- Equivalents:	Polyisocyanurate Sopra-ISO+ and polystyrene EPS insulation panel.
- Adhesive type:	Duotack is a low-rise two-part urethane adhesive. It can be used to adhere insulation apnel on surfaces such as wood, cement, metal and on roofing elastomeric systems and asphaltic systems too.305 mm (12 in.) o.c.

Vapour Barrier:

- Vapour barrier:	Elastophene SP 2,2 mm
- Supplier:	Soprema Inc.
-Description :	SBS modified bitumen membranes with glass mat reinforcement which under-surface is a thermofusible plastic film and the upper-surface is sanded.
- Attachment method:	Heat welded
- Equivalents:	Sopralene 180 SP 3,5 mm

Thermal Barrier :

- Type:	Gypsum panel for roofing Securock
- Supplier:	CGC
- Description:	Panel with gypsum core reinforced with fiber treated to resist mildew
- Thickness:	6 mm (1/4 in.) minimum and 16 mm (5/8 in.) maximum
- Attachment method:	Duotack is a low-rise two-part urethane adhesive. It can be used to adhere insulation apnel on surfaces such as wood, cement, metal and on roofing elastomeric systems and asphaltic systems too. 305 mm (12 in.) o.c.

Decking:

- Supplier:	Generic
- 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.
- 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 gauge minimum thickness
- Equivalence:	Steel deck thickness of 18 to 22 gauges or other deck with pull-out resistance equivalent to the one specified below.
- 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):	2.02 kN (453 pf)