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

Document Number: PUB-DRU168534
Publication Date: 2010-12-05
Revised: 2015-04-30
Revaluation Date: 2018-04-30

Supplier:

Mod-Bit Soprafix 630 wood deck mechanically attached System, Mechanically Attached Roof System (MARS)

Roofing System Summary:
- Cap sheet membrane: Modified Bituminous Membrane or allowable products
- Base sheet membrane: Modified Bituminous Membrane
- Cover board: Optional
- Insulation: Polysiocyanurate or allowable products
- Vapor barrier: Self-adhered membrane or allowable products
- Thermal barrier: Optional
- Decking: Standard wood (plywood) deck

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Test observation reading</th>
<th>With SF of 1.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>System A</td>
<td>-3.6 kPa (-75 psf)</td>
<td>-2.4 kPa (-50 psf)</td>
</tr>
</tbody>
</table>

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:**

<table>
<thead>
<tr>
<th>Allowable products:</th>
<th>Soprema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sopralene Flam 180 GR</td>
<td>Soprafix Traffic Cap 660</td>
</tr>
<tr>
<td>Sopralene Flam 250 GR</td>
<td>Soprafix Traffic Cap FR 661</td>
</tr>
</tbody>
</table>

**Attachment mode:** Heat welded

**Base sheet membrane:**

<table>
<thead>
<tr>
<th>Allowable products:</th>
<th>Soprema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soprafix Base 630</td>
<td></td>
</tr>
</tbody>
</table>

**Mechanically attached Pattern for System A result**

<table>
<thead>
<tr>
<th>Row spacing</th>
<th>Fasteners spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>890 mm (35 in.) o.c.</td>
<td>457 mm (18 in.) o.c.</td>
</tr>
</tbody>
</table>

**Attachment type:** Fasteners #14 with #3 deep recesses Phillips head composed of hardened carbon steel and covered with an anticorrosion coating. 20 gauges rounds barbed plate of 50 mm (2 in.), with Galvalume finish.

**Pullout fastener resistance:** 214 psi or 442 lbf or 1967 Newton

**Attachment supplier:** Soprema

**Cover board (optional):**

See optional products table

**Insulation:**

<table>
<thead>
<tr>
<th>Allowable products:</th>
<th>Soprema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sopra-Iso</td>
<td>Sopra-Iso +</td>
</tr>
<tr>
<td>SopraRock DD Plus</td>
<td>SopraRock MD</td>
</tr>
<tr>
<td>SopraRock MD Plus</td>
<td></td>
</tr>
<tr>
<td>Atlas Roofing Corp.</td>
<td></td>
</tr>
<tr>
<td>ACFoam II</td>
<td>ACFoam III</td>
</tr>
<tr>
<td>ENRGY 3</td>
<td>ENRGY 3 CGF</td>
</tr>
<tr>
<td>Johns Manville</td>
<td></td>
</tr>
<tr>
<td>Hunter Panels</td>
<td></td>
</tr>
<tr>
<td>H-Shield</td>
<td>H-Shield CG</td>
</tr>
</tbody>
</table>

**Allowable thickness:** Between 25 mm (1 in.) to 203 mm (8 in.)

**Attachment mode:** Loose laid or adhered or mechanically attached

**Vapor barrier:**

<table>
<thead>
<tr>
<th>Allowable products:</th>
<th>Soprema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sopravap’R</td>
<td>Sopralene Stick Adhesive</td>
</tr>
</tbody>
</table>

**Attachment mode:** Adhered

**Attachment type:** Self-adhered membrane

**Or Vapor barrier (option 1):**

<table>
<thead>
<tr>
<th>Allowable products:</th>
<th>Soprema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sopralene 180 SP 3.5</td>
<td>Elastophene SP 2.2 mm</td>
</tr>
</tbody>
</table>

**Mode d’attachement:** Adhéré ou fixé mécaniquement

**Or Vapor barrier (option 2):**

<table>
<thead>
<tr>
<th>Allowable products:</th>
<th>Soprema</th>
</tr>
</thead>
<tbody>
<tr>
<td>SopraStop</td>
<td>Xpress Vap’R Board</td>
</tr>
</tbody>
</table>

**Mode d’attachement:** En indépendance ou adhéré ou fixé mécaniquement
Thermal barrier (optional): See optional products table

## Decking:

- **Supplier:** CANPLY
- **Decking type:** Exterior Douglass fir plywood in accordance with CSA 0121, CSA 0151, CSA 0153 standards, like EASY T&G, DFP select grade.
- **Thickness:** 17 mm (5/8 in.) minimum, correspondent to CSA 0121, CSA 0151, CSA 0153 standards with a load limit of L/180; 6 kPa (125 psf).
- **Equivalence:** 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).

### Optional Products Table:

#### Cover board:

- **Allowable products:**
  - Soprema
  - Sopra board
  - Soprarock MD
  - Soprarock MD+
  - Georgia Pacific
  - DensDeck
  - DensDeck Prime
  - CGC / USG
  - Securock Gypsum Fiber Roof Board
  - Unifix
  - PermaBase Dek

- **Allowable thickness:** Between 6 mm (¼ in.) to 19.5 mm (5/8 in.)
- **Attachment mode:** Loose laid or adhered or mechanically attached

#### Thermal barrier:

- **Allowable products:**
  - Georgia Pacific
  - DensDeck
  - DensDeck Prime
  - CGC / USG
  - Securock Gypsum Fiber Roof Board
  - Unifix
  - PermaBase Dek

- **Allowable thickness:** Between 6 mm (¼ in.) to 19.5 mm (5/8 in.)
- **Attachment mode:** Loose laid or adhered or mechanically attached