**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:**

<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>-5.4 kPa (-112 psf)</td>
<td>-3.6 kPa (-75 psf)</td>
</tr>
<tr>
<td>System B</td>
<td>-6.3 kPa (-131 psf)</td>
<td>-4.2 kPa (-87 psf)</td>
</tr>
<tr>
<td>System C</td>
<td>-6.5 kPa (-135 psf)</td>
<td>-4.3 kPa (-90 psf)</td>
</tr>
</tbody>
</table>

**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](http://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.
Roofing System's Specific Data:

### Cap Sheet Membrane:

<table>
<thead>
<tr>
<th>Allowable products</th>
<th>Soprema</th>
<th>Sopralene Flam 180 GR</th>
<th>Sopralene Flam 250 GR</th>
<th>Sopralene Flam 180 FR GR</th>
<th>Sopralene Flam 250 FR GR</th>
<th>Soprastar Flam HD FR GR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment mode</td>
<td>Heat welded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Composite board:

<table>
<thead>
<tr>
<th>Allowable products</th>
<th>Soprema</th>
<th>Soprasmart Board 180</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhered Attached Pattern</td>
<td>Adhesion mode</td>
<td>Adhesive spacing</td>
</tr>
<tr>
<td>For System A result</td>
<td>Ribbons</td>
<td>305 mm (12 in.) o.c.</td>
</tr>
<tr>
<td>Attachment type:</td>
<td>Duotack</td>
<td>Soprema</td>
</tr>
<tr>
<td>Attachment supplier</td>
<td></td>
<td>Soprema</td>
</tr>
<tr>
<td>Adhered Attached Pattern</td>
<td>Adhesion mode</td>
<td>Adhesive spacing</td>
</tr>
<tr>
<td>For System B result</td>
<td>Ribbons</td>
<td>152 mm (6 in.) o.c.</td>
</tr>
<tr>
<td>Attachment type:</td>
<td>Duotack</td>
<td>Soprema</td>
</tr>
<tr>
<td>Attachment supplier</td>
<td></td>
<td>Soprema</td>
</tr>
<tr>
<td>Adhered Attached Pattern</td>
<td>Adhesion mode</td>
<td>Adhesive spacing</td>
</tr>
<tr>
<td>For System C result</td>
<td>Ribbons</td>
<td>102 mm (4 in.) o.c.</td>
</tr>
<tr>
<td>Attachment type:</td>
<td>Duotack</td>
<td>Soprema</td>
</tr>
<tr>
<td>Attachment supplier</td>
<td></td>
<td>Soprema</td>
</tr>
</tbody>
</table>

### Insulation:

<table>
<thead>
<tr>
<th>Allowable products</th>
<th>Soprema</th>
<th>Sopra-Iso</th>
<th>Sopra-Iso +</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlas Roofing Corp.</td>
<td>ACFoam II</td>
<td>ACFoam III</td>
<td>ACFoam IV</td>
</tr>
<tr>
<td>Johns Manville</td>
<td>ENRGY 3</td>
<td>ENRGY 3 CGF</td>
<td></td>
</tr>
<tr>
<td>Hunter Panels</td>
<td>H-Shield</td>
<td>H-Shield CG</td>
<td></td>
</tr>
<tr>
<td>Plasti-Fab HD Insulation</td>
<td>Plasti-Span</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allowable thickness</td>
<td>Between 25 mm (1 in.) to 203 mm (8 in.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adhered Attached Pattern</td>
<td>Adhesion mode</td>
<td>Adhesive spacing</td>
<td></td>
</tr>
<tr>
<td>For System A result</td>
<td>Ribbons</td>
<td>305 mm (12 in.) o.c.</td>
<td></td>
</tr>
<tr>
<td>Attachment type:</td>
<td>Duotack</td>
<td>Soprema</td>
<td></td>
</tr>
<tr>
<td>Attachment supplier</td>
<td></td>
<td>Soprema</td>
<td></td>
</tr>
<tr>
<td>Adhered Attached Pattern</td>
<td>Adhesion mode</td>
<td>Adhesive spacing</td>
<td></td>
</tr>
<tr>
<td>For System B result</td>
<td>Ribbons</td>
<td>152 mm (6 in.) o.c.</td>
<td></td>
</tr>
<tr>
<td>Attachment type:</td>
<td>Duotack</td>
<td>Soprema</td>
<td></td>
</tr>
<tr>
<td>Attachment supplier</td>
<td></td>
<td>Soprema</td>
<td></td>
</tr>
<tr>
<td>Adhered Attached Pattern</td>
<td>Adhesion mode</td>
<td>Adhesive spacing</td>
<td></td>
</tr>
<tr>
<td>For System C result</td>
<td>Ribbons</td>
<td>102 mm (4 in.) o.c.</td>
<td></td>
</tr>
<tr>
<td>Attachment type:</td>
<td>Duotack</td>
<td>Soprema</td>
<td></td>
</tr>
<tr>
<td>Attachment supplier</td>
<td></td>
<td>Soprema</td>
<td></td>
</tr>
</tbody>
</table>
Vapour Barrier:

- **Allowable products:**  
  - Soprema  
  - Soprapav'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  
  - Soprema |
| **Allowable thermal barrier and decks have to be primed (Optional for steel deck):** | Elastocol Stick  
  - Elastocol Stick Zero |