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

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| Document Number: | PUB-DRU210983 |
| Publication Date: | 2012-02-08 |
| Revised: | 2015-05-20 |
| Revaluation Date: | 2018-05-20 |

**Supplier:**

## Mod-Bit Duotack adhesive System, Adhesive Applied Roof System (AARS)

### Roofing System Summary :

- Cap sheet membrane: Modified Bituminous membrane or allowable products
- Base sheet membrane: Modified Bituminous membrane or allowable products
- Cover board: Asphaltic board
- Insulation: Polyisocyanurate insulation 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** | - 3.6 kPa (-75 psf) | **-2.4 kPa (-50 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 | | |
| | Colply Traffic Cap FR 461 | Colply Traffic Cap-FR 451 | Sopralene 250 GR |
| | Colply Traffic Cap-460 | Sopralene 180 GR | Sopralene 250 FR GR |
| | Colply Traffic Cap-450 | Sopralene 180 FR GR | |
| **Adhered Attached Pattern** | Adhesion mode | | Adhesive spacing |
| **For System A result** | **Fully adhered** | | **No spacing** |
| - Attachment type: | Colply , Grade Brush or Trowel | | |
| - Attachment supplier: | **Soprema** | | |

**Base sheet membrane:**

| | | | |
|---|---|---|---|
| - Allowable product: | **Soprema** | | |
| | Elastophene 180 Sanded | Sopralene 180 Sanded | Sopralene 250 Sanded |
| | Colply Base 410 | | |
| **Adhered Attached Pattern** | Adhesion mode | | Adhesive spacing |
| **For System A result** | **Fully adhered** | | **No spacing** |
| - Attachment type: | Colply, Grade Brush or Trowel | | |
| - Attachment supplier: | **Soprema** | | |

**Cover board:**

| | | | |
|---|---|---|---|
| - Allowable products: | **Soprema** | | |
| | Sopraboard | | |
| - Allowable thickness: | Between 3.2 mm (1/8 in.) to 6.4 mm (¼ 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:**

| | | | |
|---|---|---|---|
| - 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.) 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** | | |

**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 | |

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**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:**

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|---|---|
| - 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** | | |