

## Dynamic Wind Uplift Resistance CSA A123.21-2020 – Summary Document

Document No.: 21-06-B0043-MARS016-A  
Document Date: September 10, 2021

Reference Documentation:

CSA A123.21-2014 Report No: 21-06-B0043-1  
Supplementary Report No.: 19-06-B042-M RV2

|                      |                           |  |                                   |
|----------------------|---------------------------|--|-----------------------------------|
| <b>Manufacturer:</b> | IKO Industries Ltd.       |  | <b>IKO System Identification:</b> |
|                      | 40 Hansen Road South      |  |                                   |
|                      | Brampton, Ontario, Canada |  |                                   |
|                      | L6W 3H4                   |  | <b>MARS016</b>                    |

### SECTION 1.0: Roof System Summary:

| <b>“IKO MOD-BIT – MECHANICALLY ATTACHED PROTECTOBASE 180” – Mechanically Attached Roofing System</b> |  |
|--|--|
| Roof Membrane – Cap Sheet:   | IKO Torchflex TP-180-Cap                     |
| Roof Membrane/Cover Board:   | IKO Protectobase™ 180                        |
| Insulation:  | IKO IKOTherm™                                |
| Insulation:  | IKO IKOTherm™                                |
| Vapour Retarder:   | IKO MVP™ Vapour Retarder                     |
| Thermal Barrier:   | None   |
| Deck:  | Steel Deck, 22 ga, RD938, 230 MPa (33.4 ksi) |

### SECTION 2.0: System Dynamic Uplift Resistance (DUR) Testing Details:

| <b>Test Date</b> | <b>Dynamic Wind Uplift Resistance (DUR) of tested specimen<br/>kPa (psf)</b> | <b>Dynamic Wind Uplift Resistance (DUR)*<br/>Rating (with 1.5X safety factor)<br/>kPa (psf)</b> |
|------------------|--|---|
| July 19, 2021    | 8.0 (168)  | 5.4 (112)   |

**Dynamic Uplift Resistance Rating (DUR): 5.4 kPa (112 psf)**

**SECTION 3.0: Tested Product and Substitutable Products:**

| Roof Membrane (Cap Sheet) |   |                           |                                |
|---------------------------|---|---------------------------|--------------------------------|
| Tested Product            | IKO Torchflex TP-180-Cap                    |                           |                                |
| Product Size              | Roll Width 1 m (37"), Roll Length 8 m (26') |                           |                                |
| Attachment Method         | Heat welded                                 |                           |                                |
| Substitutable Product(s)  |   |                           |                                |
| Manufacturer              | Product Identification                      |                           |                                |
| IKO Industries Ltd.       | Torchflex TP-HD-Cap                         | Torchflex TP-250-Cap      | Torchflex TP-250-Cap (5 mm)    |
|                           | PrevEnt TP-250-Cap                          | Torchflex Ultra TP-HD-Cap | PrevEnt TP-HD-Cap              |
|                           | PrevEnt Premium TP-250-Cap                  | ArmourCool Granular TP-HD | PrevEnt ArmourCool Granular TP |
|                           | PrevEnt ArmourCool HD Cap                   | Carrara ArmourCool HD     |                                |
| IKO Industries Ltd.       | Modiflex MP-180-cap                         | Modiflex MP-250-cap       | Modiflex MP-HD-cap             |
|                           | PrevEnt MP-250-cap                          | PrevEnt MP-HD-cap         |                                |

| Roof Membrane Base Sheet/Cover Board |  |
|--------------------------------------|--|
| Tested Product                       | IKO Protectobase 180                                   |
| Product Size                         | 7.0 x 915 x 2440 mm (9/32" x 3' x 8')                  |
| Attachment Method                    | Mechanically attached                                  |
| Fastening Rate                       | In-seam fastening – see securement section for details |
| Substitutable Product(s)             |  |
| Manufacturer                         | Product Identification                                 |
| IKO Industries Ltd.                  | ShieldBase 180      ShieldBase 180 Sanded              |

| Insulation (Top Layer)   |   |                     |                        |
|--------------------------|---|---------------------|------------------------|
| Tested Product           | IKO IKOTerm   |                     |                        |
| Product Size             | 38 x 1220 x 2440 mm (1.5" x 4' x 8')                |                     |                        |
| Attachment Method        | Pre-secured– see pre-securement section for details |                     |                        |
| Fastening Rate           | n/a   |                     |                        |
| Substitutable Product(s) |   |                     |                        |
| Manufacturer             | Product Identification                              |                     |                        |
| IKO Industries Ltd.      | IKOTerm III   | IKOTerm 25 psi      | IKOTerm III 25 psi     |
|                          | IKOTerm Tapered                                     | IKOTerm III Tapered | IKOTerm 25 psi Tapered |

| Insulation (Bottom Layer) |                                      |                     |                        |
|---------------------------|--------------------------------------|---------------------|------------------------|
| Tested Product            | IKO IKOTerm                          |                     |                        |
| Product Size              | 38 x 1220 x 2440 mm (1.5" x 4' x 8') |                     |                        |
| Attachment Method         | Loose laid or pre-secured            |                     |                        |
| Fastening Rate            | n/a                                  |                     |                        |
| Substitutable Product(s)  |                                      |                     |                        |
| Manufacturer              | Product Identification               |                     |                        |
| IKO Industries Ltd.       | IKOTerm III                          | IKOTerm 25 psi      | IKOTerm III 25 psi     |
|                           | IKOTerm Tapered                      | IKOTerm III Tapered | IKOTerm 25 psi Tapered |

| Vapour Retarder          |   |                       |
|--------------------------|---|-----------------------|
| Tested Product           | IKO MVP Vapour Retarder                         |                       |
| Product Size             | Roll Width 1 m (39.4"), Roll Length 32 m (105') |                       |
| Attachment Method        | Self-adhered to substrate                       |                       |
| Fastening Rate           | n/a   |                       |
| Substitutable Product(s) |   |                       |
| Manufacturer             | Product Identification                          |                       |
| IKO Industries Ltd.      | MVP Sand  | Armourbond Flash Sand |

| Thermal Barrier          |  |                        |
|--------------------------|--|------------------------|
| Tested Product           | Optional layer   |                        |
| Product Thickness        | n/a  |                        |
| Attachment Method        | Loose laid or pre-secured  |                        |
| Fastening Rate           | n/a  |                        |
| Substitutable Product(s) |  |                        |
| Manufacturer             | Product Identification   |                        |
| Georgia-Pacific®         | DensDeck®  | DensDeck Prime®        |
| USG®/CGC                 | Securock® Glass-Mat  | Securock® Gypsum-Fiber |
| Generic                  | Any IKO approved Gypsum Board meeting the requirements of ASTM C1177 or ASTM C1278 |                        |

| Membrane Securement      |  |  |
|--------------------------|--|--|
| Tested Product           | IKO Innovifast™ #14 All Purpose (AP) Fastener with 60 mm (2-3/8") HD Seam Plate (barbed) |  |
| Fastener Spacing         | 305 mm (12") o.c. (in seam)  |  |
| Row Spacing              | 914 mm (36") o.c.  |  |
| Substitutable Product(s) |  |  |
| Manufacturer             | Product Identification   |  |
| SFS - Dekfast™           | #14 Dekfast™ Fastener with 2.4" (60 mm) round (PLT-R-2-3/8-6B) Barbed Stress Plate       |  |
| Trufast®                 | #14 HD Roofing Fastener with 2.4" (60 mm) round (MP-2400) Barbed Metal Seam Plate        |  |
| OMG®                     | #14 Heavy Duty Roofing Fastener with 2.4" (60 mm) round (PGA238) Barbed Seam Plate       |  |

| Insulation/Cover Board Pre-securement |   |  |
|---------------------------------------|---|--|
| Tested Product                        | IKO Innovifast™ #12 Insulation Fastener with Innovifast 76 mm (3") Round Insulation Plate |  |
| Fastening Rate                        | Minimum 1 per 8 ft² (0.74 m²), Four (4) per 12.7 x 1220 x 2440 mm (1/2" x 4' x 8')        |  |
| Substitutable Product(s)              |   |  |
| Manufacturer                          | Product Identification  |  |
| Trufast®                              | #12 DP or #14 HD Roofing Fastener with 3" (76 mm) Round Metal Insulation Plate (MP-3000)  |  |
| SFS - DekFast™                        | #12 or #14 (DF-PH3) Fastener with 3" (76 mm) Round Metal Insulation Plate (PLT-R-3)       |  |
| OMG®                                  | #12 or #14 RoofGrip/ HD Roofing Fastener with 3" (76 mm) Round Galv. Plate (SPGA3C)       |  |

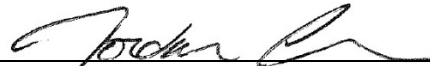
*Note: This is not a comprehensive report but a summary of the performance results produced for the roof assembly documented herein tested in accordance to CSA A123.21-2020. Please refer to the reference documents stated on page 1 for detailed information pertaining to the test specimen configuration and construction.*

**Reported by:**

A handwritten signature in black ink, appearing to read "Allan Lawrence", written over a horizontal line.

Allan Lawrence, Ext. 11212  
Supervisor, Building Systems  
Industrials Division

**Authorized by:**

A handwritten signature in black ink, appearing to read "Jordan Church", written over a horizontal line.

Jordan Church, B. Tech., Ext. 11546  
Ops. / Tech. Manager, Bldg. Science & Fire Testing  
Industrials Division

**Accreditation:** *Element is an ISO 17025 accredited test lab under International Accreditation Service "TL-407". In addition, CSA A123.21 can be found under our scope of accreditation listing.*

*This report is related only to the sample identified and shall not be reproduced, except in full, without approval and is covered under Element Materials Technology Canada Inc. Standard Terms and Conditions of Contract, which is accessible at [www.element.com](http://www.element.com), or by calling 1-866-263-9268. Direct readings reported form the basis for acceptance or rejection (pass/fail) and do not take into account or incorporate uncertainty.*