

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

Document No.: 22-06-B0026-1-TS

Document Date: March 31, 2022

Reference Documentation:

CSA A123.21-2014 Report No: 22-06-B0026-1

|                      |                             |  |                                       |
|----------------------|-----------------------------|--|---------------------------------------|
| <b>Manufacturer:</b> | Siplast                     |  | <b>Siplast System Identification:</b> |
|                      | 201 Bewicke Ave., Suite 208 |  | <b>SIP PARS-019</b>                   |
|                      | N. Vancouver, BC, Canada    |  |                                       |
|                      | V7M 3M7                     |  |                                       |

### SECTION 1.0: Roof System Summary:

| <b>“Siplast P20/30 MECHANICALLY ATTACHED THERMAL BARRIER” – Partially Attached” Roofing System</b> |  |
|--|--|
| Roof Membrane – Cap Sheet:   | Paradiene 30 TG                              |
| Roof Membrane – Base Sheet:  | Paradiene 20 TG                              |
| Cover Board:   | Georgia-Pacific DensDeck® Prime              |
| Insulation:  | Paratherm)                                   |
| Insulation:  | Paratherm                                    |
| Vapour Retarder:   | IREX 40                                      |
| Thermal Barrier  | Georgia-Pacific DensDeck® Prime              |
| Deck:  | Steel Deck, 22 ga, RD938, 230 MPa (33.4 ksi) |

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

| <b>Test Date</b> | <b>Measured Dynamic Wind Uplift Resistance of tested specimen, as per CSA A123.21-20 kPa (psf)</b> | <b>Dynamic Wind Uplift Resistance Rating, DUR (with 1.5X safety factor) as per CA A123.21-14 kPa (psf)</b> |
|------------------|--|--|
| March 29, 2022   | 8.61 (180)   | 5.75 (120)   |

**Measured Dynamic Wind Uplift Resistance: 8.61 kPa (180 psf) \***

\* Value does not include resistance factor. Applicable resistance factor shall be applied.

Note: This is not a comprehensive report. Please refer to the test report\* stated above for detailed information pertaining to the test specimen configuration evaluated and reported in accordance with CSA A123.21-2020.

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

| Roof Membrane (Cap Sheet) |   |                          |                        |
|---------------------------|---|--------------------------|------------------------|
| Tested Product            | Paradiene 30 TG   |                          |                        |
| Product Size              | Roll Width 1 m (39.4"), Roll Length, 10.21 m (33.5'), Thickness 3.3 mm (130 mils), Selvage Width 76 mm (3") |                          |                        |
| Attachment Method         | Heat welded   |                          |                        |
| Substitutable Product(s)  |   |                          |                        |
| Manufacturer              | Product Identification  |                          |                        |
| Siplast                   | Paradiene 30 FR TG  | Paradiene 30 FR TG BW    | Paradiene 30 HT FR TG  |
|                           | Paradiene 30 HT FR TG BW  | Paradiene 40 FR TG       | Paradiene 40 FR TG BW  |
|                           | Parafor 30 TG   | Parafor 50 TG            | Parafor 50 TG BW       |
|                           | Paratech Glass Cap TG   | Paratech Glass Cap FR TG | Paratech 180 Cap TG    |
|                           | Paratech 180 Cap FR TG  | Paratech 250 Cap TG      | Paratech 250 Cap FR TG |

| Roof Membrane (Base Sheet) |  |                            |                      |
|----------------------------|--|----------------------------|----------------------|
| Tested Product             | Paradiene 20 TG  |                            |                      |
| Product Size               | Roll Width 1 m (39.4"), Roll Length, 15.24 m (50'), Thickness 2.3 mm (91 mils), Selvage Width 76 mm (3") |                            |                      |
| Attachment Method          | Heat welded  |                            |                      |
| Substitutable Product(s)   |  |                            |                      |
| Manufacturer               | Product Identification   |                            |                      |
| Siplast                    | Paradiene 20 HV TG   | Paradiene 20 EG TG         | Paradiene 20 HT TG   |
|                            | Paradiene 20 PR TG   | Paradiene 20 TG F          | Paradiene 20 HT TG F |
|                            | Paratech Glass Base TG   | Paratech Glass Base 3.0 TG | Paratech 180 Base TG |

| Cover Board              |  |
|--------------------------|--|
| Tested Product           | GP DensDeck Prime                      |
| Product Size             | 6.4 x 1220 x 1220 mm (1/4" x 4' x 4')  |
| Attachment Method        | Parafast Adhesive C @ 152 mm (6") o.c. |
| Substitutable Product(s) |  |
| Manufacturer             | Product Identification                 |
| n/a                      | n/a                                    |

| Insulation (Top Layer)   |  |
|--------------------------|--|
| Tested Product           | Paratherm G                            |
| Product Size             | 51 x 1220 x 1220 mm (2" x 4' x 4')     |
| Attachment Method        | Parafast Adhesive C @ 152 mm (6") o.c. |
| Substitutable Product(s) |  |
| Manufacturer             | Product Identification                 |
| Siplast.                 | Paratherm W      Paratherm H           |

| Insulation (Bottom Layer) |  |             |
|---------------------------|--|-------------|
| Tested Product            | Paratherm G                            |             |
| Product Size              | 51 x 1220 x 1220 mm (2" x 4' x 4')     |             |
| Attachment Method         | Parafast Adhesive C @ 152 mm (6") o.c. |             |
| Substitutable Product(s)  |  |             |
| Manufacturer              | Product Identification                 |             |
| Siplast.                  | Paratherm W                            | Paratherm H |

| Vapour Retarder          |  |
|--------------------------|--|
| Tested Product           | IREX 40  |
| Product Size             | Roll Width 1 m (32.8"), Roll Length, 10.36 m (34', Thickness 2.8 mm (110 mils), Selvage Width 76 mm (3") |
| Attachment Method        | Heat welded  |
| Substitutable Product(s) |  |
| Manufacturer             | Product Identification   |
| Siplast.                 | Paradiene 20 TG  |

| Thermal Barrier          |  |
|--------------------------|--|
| Tested Product           | GP DensDeck Prime®                     |
| Product Size             | 12.7 x 1220 x 2440 mm (1/2" x 4' x 8') |
| Attachment Method        | Mechanically attached                  |
| Fastening Rate           | 1 per 2.0 ft² (0.18 m²)                |
| Substitutable Product(s) |  |
| Manufacturer             | Product Identification                 |
| n/a                      | n/a                                    |

| Assembly Adhesive Securement |                                    |
|------------------------------|------------------------------------|
| Tested Product               | Parafast Adhesive C                |
| Fastening Rate               | Ribbon adhered at 152 mm (6") o.c. |
| Substitutable Product(s)     |                                    |
| Manufacturer                 | Product Identification             |
| Siplast                      | Parafast Adhesive                  |

| Thermal Barrier Securement |   |
|----------------------------|---|
| Tested Product             | Parafast Fastener (#12) with Parafast 76 mm (3") round metal plate                      |
| Fastening Rate             | 1 per 2.0 ft² (0.18 m²) - Sixteen (16) per 12.7 x 1220 x 2440 mm (1/2" x 4' x 8') board |
| Substitutable Product(s)   |   |
| Manufacturer               | Product Identification  |
| n/a                        | n/a   |

Notes: 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, or consult the manufacturer, for detailed information pertaining to the test specimen configuration and construction.

The Substitutable Products referenced in this Element Summary Report have been established for Siplast by PRI Construction Materials Technologies LLC engineering evaluation report "Dynamic Uplift Resistance (Dur) Evaluation Of Siplast Roof Systems (Project No. 824a0005) dated April 18, 2022.

**Approved by:**

**Reported by:**

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**Accreditation:** Element is an ISO 17025 accredited test lab under A2LA. In addition, CSA A123.21 can be found under our scope of accreditation listing.

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