

Registry No. 29824 17520 Edinburgh Dr Tampa, FL 33647 (813) 480-3421

# **EVALUATION REPORT**

# FLORIDA BUILDING CODE, 7<sup>TH</sup> EDITION (2020)

| Manufacturer:         | IKO INDUSTRIES, LTD<br>40 Hansen Rd S<br>Brampton, ON L6W 3H4<br>Canada<br>(905) 457-2880<br>www.iko.com  | Issued February 12, 2023 |
|-----------------------|---|--------------------------|
| Manufacturing Plants: | Brampton, Ontario<br>Calgary, Alberta<br>Hawkesbury, Ontario<br>Hillsboro, TX<br>Kankakee, IL<br>Sumas, WA<br>Sylacauga, AL<br>Toronto, Ontario |                          |
| Quality Assurance:    | PRI Construction Materials Technologies (QUA9110)   |                          |
| SCOPE                 |   |                          |
| • •                   | ofing<br>halt Shingles  |                          |

| Category:      | Rooting  |
|----------------|--|
| Subcategory:   | Asphalt Shingles   |
| Code Edition:  | Florida Building Code, 7 <sup>th</sup> Edition (2020) including High-Velocity Hurricane Zones (HVHZ) |
| Code Sections: | 1504.1.1, 1507.2.5, 1507.2.7.1, 1523.5.1, 1523.6.5.1   |
| Properties:    | Physical properties, Wind Resistance, Wind Driven Rain   |
|                |  |

#### REFERENCES

| <u>Entity</u>                                     | Report No.    | Standard    | <u>Year</u> |
|---|---------------|-------------|-------------|
| FM Approvals (TST1867)                            | 3036971       | FM 4475     | 2010        |
| FM Approvals (TST1867)                            | 3040947       | FM 4475     | 2010        |
|   |               | ASTM E 108  | 2016        |
| FM Approvals (TST1867)                            | 3041689       | FM 4475     | 2010        |
| FM Approvals (TST1867)                            | 3044376       | FM 4475     | 2010        |
| FM Approvals (TST1867)                            | 3045254       | FM 4475     | 2010        |
| FM Approvals (TST1867)                            | 3046191       | FM 4475     | 2010        |
| PRI Construction Materials Technologies (TST5878) | IKO-050-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-051-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-053-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-067-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-071-02-01 | ASTM D 3462 | 2010A       |
| PRI Construction Materials Technologies (TST5878) | IKO-072-02-02 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-076-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-077-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-088-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-095-02-01 | ASTM D 3462 | 2010A       |
| PRI Construction Materials Technologies (TST5878) | IKO-096-02-01 | ASTM D 3462 | 2010A       |
| PRI Construction Materials Technologies (TST5878) | IKO-099-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-100-02-01 | TAS 107     | 2020        |
| PRI Construction Materials Technologies (TST5878) | IKO-114-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-115-02-01 | ASTM D 3161 | 2016        |
| PRI Construction Materials Technologies (TST5878) | IKO-117-02-01 | TAS 100     | 1995        |
| PRI Construction Materials Technologies (TST5878) | IKO-120-02-01 | ASTM D 3462 | 2010A       |
| <b>3</b> ( )                                      |               |             |             |

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| <u>Entity</u>                                     | Report No.                     | Standard                   | Year                |
|---|--------------------------------|----------------------------|---------------------|
| PRI Construction Materials Technologies (TST5878) | IKO-121-02-01                  | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | IKO-123-02-01                  | ASTM D 3161                | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-125-02-01                  | TAS 107                    | 2020                |
|   |                                | ASTM D 3161                | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-126-02-01                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-127-02-01                  | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | IKO-128-02-01                  | TAS 107                    | 2020                |
| DDI Construction Materials Technologies (TSTE979) | IKO-129-02-01                  | ASTM D 3161<br>ASTM D 3462 | 2016<br>2010A       |
| PRI Construction Materials Technologies (TST5878) | IKO-129-02-01<br>IKO-130-02-01 | ASTM D 3462<br>ASTM D 3161 |                     |
| PRI Construction Materials Technologies (TST5878) |                                |                            | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-131-02-01                  | TAS 107<br>ASTM D 3161     | 2020<br>2016        |
| PRI Construction Materials Technologies (TST5878) | IKO-140-02-01                  | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | IKO-148-02-01                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-153-02-01                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-171-02-01                  | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | IKO-171-02-02                  | TAS 107                    | 2020                |
|   |                                | ASTM D 3161                | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-171-02-03                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-198-02-01                  | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | IKO-198-02-02                  | TAS 100                    | 2020                |
| PRI Construction Materials Technologies (TST5878) | IKO-198-02-03                  | ASTM D 3161                | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-199-02-01                  | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | IKO-199-02-02                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-199-02-03                  | ASTM D 3161                | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-201-02-01                  | ASTM D 3462                | 2010A               |
| ······································            |                                | <b>ASTM E 108</b>          | 2016                |
|   |                                | ASTM D 3018                | 1990(R94)E1         |
| PRI Construction Materials Technologies (TST5878) | IKO-201-02-02                  | ASTM D 3161                | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-201-02-07                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-202-02-01                  | ASTM D 3462                | 2010A               |
|   |                                | ASTM E 108                 | 2011                |
| PRI Construction Materials Technologies (TST5878) | IKO-202-02-02                  | ASTM D 3018<br>TAS 107     | 1990(R94)E1<br>2020 |
| FIX Construction materials rechnologies (1313078) | 10-202-02-02                   | ASTM D 3161                | 2020                |
| PRI Construction Materials Technologies (TST5878) | IKO-202-02-07                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-203-02-01                  | ASTM D 3462                | 2010A               |
| <b>3</b> ( )                                      |                                | ASTM E 108                 | 2011                |
|   |                                | ASTM D 3018                | 1990(R94)E1         |
| PRI Construction Materials Technologies (TST5878) | IKO-203-02-02                  | ASTM D 3161                | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-203-02-07                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-205-02-01                  | ASTM D 3462                | 2010A               |
|   |                                | ASTM E 108                 | 2016                |
| PRI Construction Materials Technologies (TST5878) | IKO-205-02-02                  | ASTM D 3018<br>ASTM D 3161 | 1990(R94)E1<br>2016 |
| PRI Construction Materials Technologies (TST5878) | IKO-205-02-02                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-205-02-07                  | ASTM D 3462                | 2010A               |
| FIX Construction materials rechnologies (1313078) | 10-200-02-01                   | ASTM E 108                 | 2010A<br>2016       |
|   |                                | ASTM D 3018                | 1990(R94)E1         |
| PRI Construction Materials Technologies (TST5878) | IKO-206-02-02                  | ASTM D 3161                | 2016 ໌              |
| PRI Construction Materials Technologies (TST5878) | IKO-206-02-07                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | IKO-208-02-01                  | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | IKO-217-02-01                  | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | IKO-218-02-01                  | TAS 100                    | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476C0017.1                     | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476C0017.2                     | ASTM D 3161                | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476C0017.3                     | ASTM E 108                 | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476C0020.1                     | ASTM D 3462                | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476C0020.2                     | ASTM D 3161                | 2016                |
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| <u>Entity</u>                                     | Report No. | Standard               | Year                |
|---|------------|------------------------|---------------------|
| PRI Construction Materials Technologies (TST5878) | 476C0020.3 | ASTM E 108             | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476C0033.1 | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476C0033.2 | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476C0033.3 | ASTM E 108             | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0002   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0003   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0004   | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0012   | ASTM D 3462            | 2010A               |
|   |            | ASTM D 3018            | 1990(R94)E1         |
| PRI Construction Materials Technologies (TST5878) | 476T0013   | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0021   | TAS 107<br>ASTM D 3462 | 2020<br>2010A       |
|   | 47010021   | ASTM D 3018            | 1990(R94)E1         |
| PRI Construction Materials Technologies (TST5878) | 476T0022   | ASTM D 3161            | 2016                |
|   |            | TAS 107                | 2020                |
| PRI Construction Materials Technologies (TST5878) | 476T0023   | ASTM E 108             | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0034   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0039   | ASTM D 3462            | 2010A               |
|   | 17070010   | ASTM D 3018            | 1990(R94)E1         |
| PRI Construction Materials Technologies (TST5878) | 476T0040   | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0041   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0042   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0043   | ASTM D 3018<br>TAS 100 | 1990(R94)E1<br>1995 |
| PRI Construction Materials Technologies (TST5878) | 476T0044   | ASTM D 3462            | 2010A               |
|   | 47010044   | ASTM D 3018            | 1990(R94)E1         |
| PRI Construction Materials Technologies (TST5878) | 476T0045   | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0046   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0057   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0058   | <b>ASTM E 108</b>      | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0059   | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0061   | ASTM D 7158            | 2019ae1             |
| PRI Construction Materials Technologies (TST5878) | 476T0107   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0111   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0112   | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0114   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0115   | ASTM D 3161            | 2016                |
|   |            | TAS 107                | 2020                |
| PRI Construction Materials Technologies (TST5878) | 476T0116   | ASTM D 7158            | 2019ae1             |
| PRI Construction Materials Technologies (TST5878) | 476T0117   | ASTM E 108             | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0118   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0121   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0122   | ASTM E 108             | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0123   | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0126   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0132   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0134   | ASTM D 3161            | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0136   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0138   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0140   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0141   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0142   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0158   | ASTM D 3462            | 2010A               |
| PRI Construction Materials Technologies (TST5878) | 476T0159   | ASTM D 3161            | 2016                |
|   |            | TAS 107                | 2020                |
| PRI Construction Materials Technologies (TST5878) | 476T0160   | ASTM E 108             | 2016                |
| PRI Construction Materials Technologies (TST5878) | 476T0161   | TAS 100                | 1995                |
| PRI Construction Materials Technologies (TST5878) | 476T0163.1 | ASTM D 3462            | 2010A               |
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| Entity   | Report No.   | Standard   | Year   |
|--|--|--|--|
| PRI Construction Materials Technologies (TST5878)  | 476T0164   | ASTM D 3161  | 2016   |
|  |  | TAS 107  | 2020   |
| PRI Construction Materials Technologies (TST5878)  | 476T0165   | ASTM E 108   | 2016   |
| PRI Construction Materials Technologies (TST5878)  | 476T0166   | TAS 100  | 1995   |
| PRI Construction Materials Technologies (TST5878)  | 476T0192   | ASTM D 3462  | 2010A  |
| PRI Construction Materials Technologies (TST5878)  | 476T0194   | ASTM E 108   | 2016   |
| PRI Construction Materials Technologies (TST5878)  | 476T0196   | ASTM D 3161  | 2016   |
|  |  | TAS 107  | 2020   |
| PRI Construction Materials Technologies (TST5878)  | 476T0202   | TAS 100  | 1995   |
| PRI Construction Materials Technologies (TST5878)  | 476T0207   | ASTM D 3462  | 2010A  |
| PRI Construction Materials Technologies (TST5878)  | 476T0209   | ASTM E 108   | 2016   |
| PRI Construction Materials Technologies (TST5878)  | 476T0208   | ASTM D 3161  | 2016   |
|  |  | TAS 107  | 2020   |
| PRI Construction Materials Technologies (TST5878)  | 476T0210   | TAS 100  | 1995   |
| PRI Construction Materials Technologies (TST5878)<br>PRI Construction Materials Technologies (TST5878) | 476T0166<br>476T0192<br>476T0194<br>476T0196<br>476T0202<br>476T0207<br>476T0209<br>476T0208 | TAS 100<br>ASTM D 3462<br>ASTM E 108<br>ASTM D 3161<br>TAS 107<br>TAS 100<br>ASTM D 3462<br>ASTM E 108<br>ASTM D 3161<br>TAS 107 | 1995<br>2010A<br>2016<br>2020<br>1995<br>2010A<br>2016<br>2016<br>2020 |

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## **PRODUCT DESCRIPTION**

| Roofshake™ HW<br>(Calgary)  | 13-3/4" x 40-7/8", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462. Shingles shall be used in the non-HVHZ only.   |
|---|--|
| Armourshake™<br>(Sumas)   | 18-1/2" x 37-3/8", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462.  |
| Royal Estate™<br>(Toronto)  | 13-1/4" x 40", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462.  |
| Crowne Slate<br>(Toronto)   | 13-1/4" x 39-1/2", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462.  |
| Dynasty™<br>(Calgary, Hawkesbury,<br>Hillsboro, Kankakee,<br>Sumas & Sylacauga)                         | 13-3/4" x 40-7/8", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462. Shingles manufactured in Calgary and Sumas shall be used in the non-HVHZ only.                           |
| Nordic™<br>(Calgary, Hillsboro &<br>Kankakee)   | 13-3/4" x 40-7/8", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462. Shingles manufactured in Hillsboro shall be used in the non-HVHZ only.                                   |
| Cambridge™<br>(Brampton, Calgary,<br>Hawkesbury, Hillsboro,<br>Kankakee, Sumas,<br>Sylacauga & Toronto) | 13-3/4" x 40-7/8", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462. Shingles manufactured in Brampton, Calgary and Toronto shall be used in the non-HVHZ only.               |
| CRC Biltmore®<br>(Brampton, Calgary,<br>Hawkesbury, Kankakee,<br>Sumas & Toronto)                       | 13-3/4" x 40-7/8", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462. Shingles manufactured in Brampton, Calgary and Toronto shall be used in the non-HVHZ only.               |
| CRC Regency®<br>(Calgary & Hawkesbury)  | 13-3/4" x 40-7/8", ASTM D 3161, Class F self-sealing, fiberglass reinforced, laminated architectural asphalt shingle surfaced with granules complying with ASTM D 3462. Shingles manufactured in Calgary shall be used in the non-HVHZ only.                                     |
| CRC Superglass®<br>(Calgary, Hawkesbury &<br>Toronto)   | 13-1/4" x 39-3/8", ASTM D 3161, Class F self-sealing, 3-tab asphalt shingle with fiberglass mat coated on both sides with asphalt and surfaced with granules complying with ASTM D 3462. Shingles manufactured in Calgary and Toronto shall be used in the non-HVHZ only.        |
| Marathon™ Plus AR<br>(Calgary, Hawkesbury,<br>Hillsboro, Kankakee,<br>Sumas, Sylacauga &<br>Toronto)    | 13-1/4" x 39-3/8", ASTM D 3161, Class F self-sealing, 3-tab asphalt shingle with fiberglass mat coated on both sides with asphalt and surfaced with granules complying with ASTM D 3462. Shingles manufactured in Calgary, Sumas and Toronto shall be used in the non-HVHZ only. |
| Hip & Ridge™ 12<br>(Calgary, Kankakee,<br>Sylacauga & Toronto)  | 13-1/4" x 36", ASTM D 3161, Class F fiberglass reinforced, monolayer asphalt hip and ridge shingle surfaced with granules and perforated every 12-inches complying with ASTM D 3462.   |
| Hip & Ridge™ Class 4<br>(Calgary & Kankakee)  | 13-1/4" x 36", ASTM D 3161, Class F fiberglass reinforced, monolayer asphalt hip and ridge shingle surfaced with granules and perforated every 12-inches complying with ASTM D 3462.   |

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This evaluation report is provided for State of Florida product approval under Rule 61G20-3. The manufacturer shall notify CREEK Technical Services, LLC of any product changes or quality assurance changes throughout the duration for which this report is valid. This evaluation report does not express nor imply warranty, installation, recommended use, or other product attributes that are not specifically addressed herein.



| Hip & Ridge Plus™<br>(Calgary)               | 13-/14: x 39-3/8", ASTM D 3161, Class F fiberglass reinforced, monolayer asphalt hip and ridge shingle surfaced with granules and perforated every 13-inches complying with ASTM D 3462. Shingles shall be used in the non-HVHZ only.        |
|--|--|
| Hip and Ridge™<br>(Sumas)                    | 13-1/4" x 39-3/8", ASTM D 3161, Class F fiberglass reinforced, monolayer asphalt hip and ridge shingle surfaced with granules and perforated every 10-inches complying with ASTM D 3462. <i>Shingles shall be used in the non-HVHZ only.</i> |
| Armour Starter™<br>(Calgary)                 | 13-1/4" x 39-3/8", ASTM D 3161, Class F fiberglass reinforced asphalt strip embedded with granules complying with ASTM D 3462. For use with Armourshake™ shingles.   |
| Leading Edge Plus™<br>(Calgary & Hawkesbury) | 7-7/8" x 40-7/8", ASTM D 3161, Class F fiberglass reinforced, monolayer asphalt shingle strip surfaced with granules complying with ASTM D 3462. Shingles manufactured in Calgary shall be used in the non-HVHZ only.                        |

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#### INSTALLATION

| Roofshake™ HW               | Basic Wind Speed (Vult): | Max. 194 mph   |
|-----------------------------|--------------------------|--|
| (Calgary)                   | Basic Wind Speed (Vasd): | Max. 150 mph   |
|                             | Deck (HVHZ):             | In accordance with FBC requirements;   |
|                             |                          | Solidly sheathed min. 19/32 in. plywood or wood plank for                                      |
|                             |                          | new construction; Min. 15/32 in. plywood existing construction.                                |
|                             |                          |  |
|                             | Deck (Non-HVHZ):         | Solidly sheathed in accordance with FBC requirements.  |
|                             | Underlayment:            | In accordance with FBC requirements.<br>2:12 and in accordance with FBC requirements. Refer to |
|                             | Min. slope:              | the manufacturer's application instructions when installing                                    |
|                             |                          | shingles at slopes greater than 21:12.   |
|                             | Installation (Non-HVHZ): | Installed with 5-7/8 inch exposure, in accordance with FBC                                     |
|                             |                          | requirements and manufacturer's published installation   |
|                             |                          | instructions. Shingles shall be attached using "4 Nail   |
|                             |                          | Pattern" detailed below.   |
| Standard Ap<br>Requires 4 N | -                        | Nail<br>Line   |
|                             | -                        | Roofshake™ HW<br>(Non-HVHZ only)   |

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| Armourshake™ | Basic Wind Speed (Vult):                       | Max. 194 mph  |
|--------------|--|---|
| (Sumas)      | Basic Wind Speed (Val):                        | Max. 150 mph  |
| (Guinas)     | Deck (HVHZ):                                   | In accordance with FBC requirements;  |
|              | Deck (ITVTIZ).                                 | Solidly sheathed min. 19/32 in. plywood or wood plank for   |
|              |  | new construction; Min. 15/32 in. plywood existing   |
|              |  | construction.   |
|              | Deck (Non-HVHZ):                               | Solidly sheathed in accordance with FBC requirements.   |
|              | Underlayment:                                  | In accordance with FBC requirements.  |
|              | Min. slope:                                    | 2:12 and in accordance with FBC requirements. Refer to the manufacturer's application instructions when installing shingles at slopes greater than 21:12.   |
|              | Installation (HVHZ):                           | Installed with 5-7/8 inch exposure in accordance with RAS 115 and manufacturer's published installation instructions. Shingles shall be attached using "6 Nail Pattern" detailed below.                                     |
|              | Installation (Non-HVHZ):                       | Installed with 5-7/8 inch exposure in accordance with FBC requirements and manufacturer's published installation instructions. Shingles shall be attached using either "5 Nail Pattern" or "6 Nail Pattern" detailed below. |
|              | Standard Applicatior<br>Requires 5 Nails/Faste |   |
|              | Figure 2.                                      | Alignment<br>Notches<br>Armourshake™  |
|              |  | (Non-HVHZ only)   |
|              | Nailing – Steep Slo<br>Requires 6 Nails/Fa     | ppes/High Wind Areas Applications<br>asteners   |
|              | ail Line                                       |   |
| Ali<br>N     | gnment<br>otches                               | Alignment<br>Notches  |
|              |  |   |
|              | Figure 3.                                      | Armourshake™<br>il Pattern  |
|              | 0 NA   |   |

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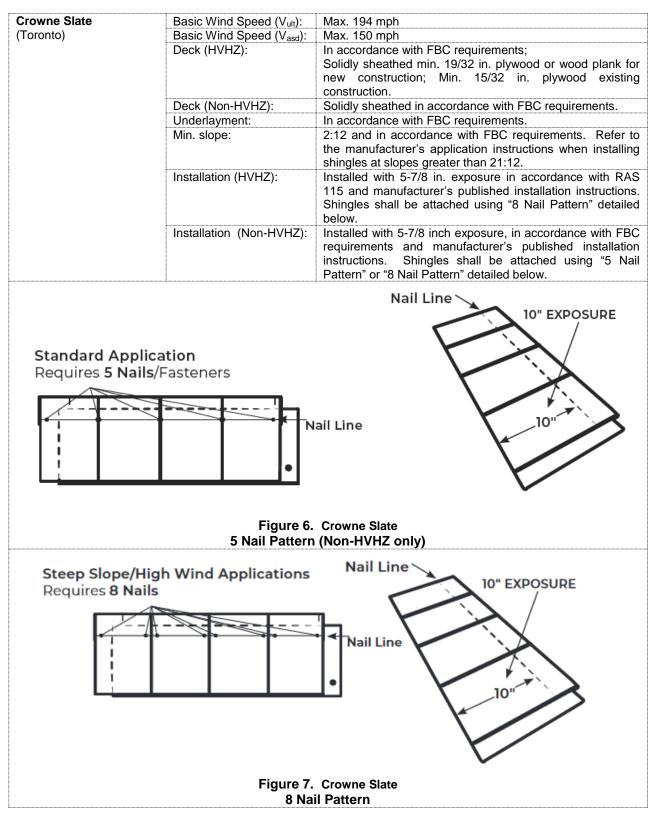


| Royal Estate™ | Basic Wind Speed (Vult):               | Max. 194 mph   |
|---------------|--|--|
| (Toronto)     | Basic Wind Speed (Vaid):               | Max. 150 mph   |
| (*******)     | Deck (HVHZ):                           | In accordance with FBC requirements;<br>Solidly sheathed min. 19/32 in. plywood or wood plank for<br>new construction; Min. 15/32 in. plywood existing<br>construction.  |
|               | Deck (Non-HVHZ):                       | Solidly sheathed in accordance with FBC requirements.  |
|               | Underlayment:                          | In accordance with FBC requirements.   |
|               | Min. slope:                            | 2:12 and in accordance with FBC requirements. Refer to the manufacturer's application instructions when installing shingles at slopes greater than 21:12.  |
|               | Installation (HVHZ):                   | Installed with 5-7/8 in. exposure in accordance with RAS 115 and manufacturer's published installation instructions. Shingles shall be attached using "6 Nail Pattern" detailed below.                                     |
|               | Installation (Non-HVHZ):               | Installed with 5-7/8 in. exposure in accordance with FBC requirements and manufacturer's published installation instructions. Shingles shall be attached using either "4 Nail Pattern" or "6 Nail Pattern" detailed below. |
|               | ı"→ Figure 4.                          | Nails<br>Royal Estate™   |
|               |  | (non-HVHZ only)  |
|               | Steep Slope/High<br>Requires 6 Nails/F | Wind Applications<br>asteners  |
|               | 1"→ ←                                  | Nails  |
|               |  | Royal Estate™<br>il Pattern  |

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| Dynasty™                               | Basia Wind Speed (V/ )   | May 104 mph  |
|--|--|--|
| (Calgary (Non-HVHZ),                   | Basic Wind Speed (V <sub>ult</sub> ):<br>Basic Wind Speed (V <sub>asd</sub> ): | Max. 194 mph<br>Max. 150 mph   |
| Hawkesbury, Kankakee,                  | Deck (HVHZ):   | In accordance with FBC requirements;   |
| Sumas (Non-HVHZ) &                     |  | Solidly sheathed min. 19/32 in. plywood or wood plank for  |
| Sylacauga)                             |  | new construction; Min. 15/32 in. plywood of wood plank for   |
| -,                                     |  | construction.  |
| and                                    | Deck (Non-HVHZ):   | Solidly sheathed in accordance with FBC requirements.  |
|  | Underlayment:  | In accordance with FBC requirements.   |
| Nordic™                                | Min. slope:  | 2:12 and in accordance with FBC requirements. Refer to   |
| (Calgary, Hillsboro (Non-              | •  | the manufacturer's application instructions when installing  |
| HVHZ) & Kankakee)                      |  | shingles at slopes greater than 21:12.   |
|  | Installation (HVHZ):   | Installed with 5-7/8 in. exposure in accordance with RAS   |
| and                                    |  | 115 and manufacturer's published installation instructions.  |
| CDC Deserver                           |  | Shingles shall be attached using "6 Nail Pattern" detailed   |
|  |  | below.   |
| (Calgary (Non-HVHZ) &<br>Hawkesbury)   | Installation (Non-HVHZ):   | Installed with 5-7/8 in. exposure in accordance with FBC   |
| Hawkesbury)                            |  | requirements and manufacturer's published installation   |
|  |  | instructions. Shingles shall be attached using either "4 Nail  |
|  |  | Pattern" or "6 Nail Pattern" detailed below.   |
|  | $\sim$   | Common Bond  |
|  |  | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency <sup>®</sup><br>(non-HVHZ only)   |
|  |  | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency <sup>®</sup><br>a (non-HVHZ only)<br>1-1/4* ArmourZone  |
|  |  | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency <sup>®</sup><br>(non-HVHZ only)   |
| Steep Slope/High                       | 4 Nail Patterr   | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency <sup>®</sup><br>a (non-HVHZ only)<br>1-1/4 <sup>*</sup><br>ArmourZone   |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency <sup>®</sup><br>a (non-HVHZ only)<br>1-1/4 <sup>*</sup><br>ArmourZone   |
| Steep Slope/High<br>Requires 6 Nails/F | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency <sup>®</sup><br>a (non-HVHZ only)<br>1-1/4 <sup>*</sup><br>ArmourZone   |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic™, and CRC Regency®<br>(non-HVHZ only)  |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency <sup>®</sup><br>a (non-HVHZ only)<br>1-1/4 <sup>*</sup><br>ArmourZone   |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic™, and CRC Regency®<br>(non-HVHZ only)  |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic™, and CRC Regency®<br>(non-HVHZ only)  |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic™, and CRC Regency®<br>(non-HVHZ only)<br>1-1/4*<br>ArmourZone<br>Common Bond<br>Common Bond  |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency <sup>®</sup><br>(non-HVHZ only)   |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic™, and CRC Regency®<br>(non-HVHZ only)<br>1-1/4*<br>ArmourZone<br>Common Bond<br>Common Bond  |
|  | 4 Nail Patterr<br>Wind Applications  | ArmourZone<br>ordic™, and CRC Regency®<br>(non-HVHZ only)<br>1-1/4*<br>ArmourZone<br>Common Bond<br>1-1/4*   |
|  | 4 Nail Patterr   | ArmourZone<br>ordic <sup>TM</sup> , and CRC Regency <sup>®</sup><br>(non-HVHZ only)<br>1-1/4"<br>ArmourZone<br>1-1/4"<br>ArmourZone<br>Common Bond<br>(ordic TM, and CRC Regency <sup>®</sup><br>(non-HVHZ only) |
|  | 4 Nail Patterr<br>Wind Applications<br>asteners<br>Figure 9. Dynasty™ No.      | ArmourZone<br>ordic <sup>™</sup> , and CRC Regency®<br>(non-HVHZ only)<br>1-1/4*<br>ArmourZone<br>1-1/4*<br>ArmourZone<br>1-1/4*<br>ArmourZone   |

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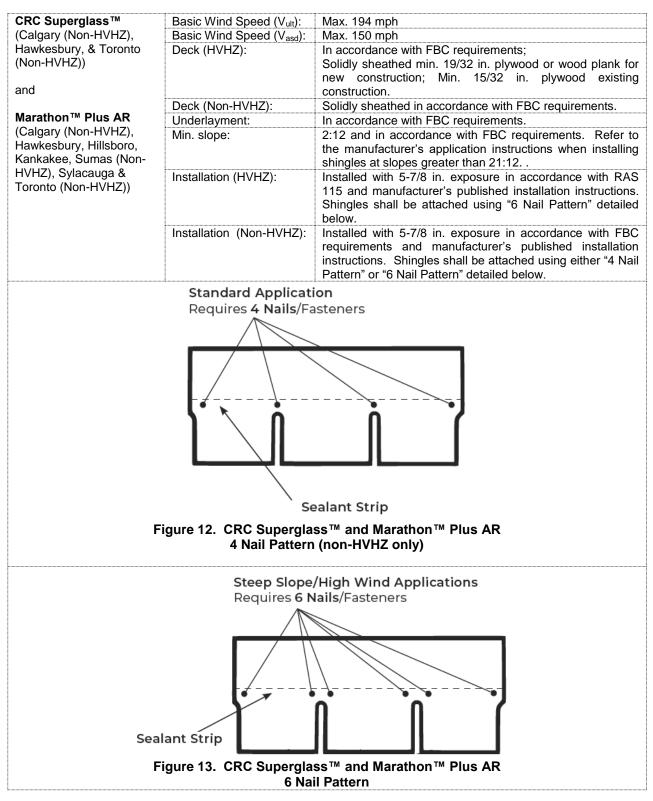
| Cambridge™  | Basic Wind Speed (Vult):              | Max. 194 mph   |  |  |
|---|---------------------------------------|--|--|--|
| (Brampton (Non-HVHZ),   | Basic Wind Speed (V <sub>asd</sub> ): | Max. 150 mph   |  |  |
| Calgary (Non-HVHZ),<br>Hawkesbury, Hillsboro,   | Deck (HVHZ):                          | In accordance with FBC requirements;   |  |  |
| Kankakee, Sumas,  |                                       | Solidly sheathed min. 19/32 in. plywood or wood plank for  |  |  |
| Sylacauga & Toronto   |                                       | new construction; Min. 15/32 in. plywood existing construction.  |  |  |
| (Non-HVHZ))   | Deck (Non-HVHZ):                      | Solidly sheathed in accordance with FBC requirements.  |  |  |
| (110111112))  | Underlayment:                         | In accordance with FBC requirements.   |  |  |
| and   | Min. slope:                           | 2:12 and in accordance with FBC requirements. Refer to   |  |  |
| CRC Biltmore™<br>(Brampton (Non-HVHZ),<br>Calgary (Non-HVHZ),<br>Hawkesbury, Kankakee,<br>Sumas (Non-HVHZ) &<br>Toronto (Non-HVHZ)) | ·                                     | the manufacturer's application instructions when installing shingles at slopes greater than 21:12.   |  |  |
|   | Installation (HVHZ):                  | Installed with 5-7/8 in. exposure in accordance with RAS 115 and manufacturer's published installation instructions. Shingles shall be attached using "6 Nail Pattern" detailed below.                                     |  |  |
|   | Installation (Non-HVHZ):              | Installed with 5-7/8 in. exposure in accordance with FBC requirements and manufacturer's published installation instructions. Shingles shall be attached using either "4 Nail Pattern" or "6 Nail Pattern" detailed below. |  |  |
|   |                                       | Nail<br>Line<br>ge™ and CRC Biltmore™<br>(non-HVHZ only)   |  |  |
|   |                                       | Nail Line Common Bond  |  |  |
| Stoop Slope/U   | ah Wind Applicati                     | Common Bona  |  |  |
| Steep Slope/High Wind Applications  |                                       |  |  |  |
| Requires 6 Nails/Fasteners  |                                       |  |  |  |
| $\wedge$  |                                       |  |  |  |
|   |                                       |  |  |  |
| · · · · · ·   |                                       | Nail<br>Line   |  |  |
|   |                                       | 5-7/8  |  |  |
| Figure 11. Cambridge™ and CRC Biltmore™<br>6 Nail Pattern   |                                       |  |  |  |

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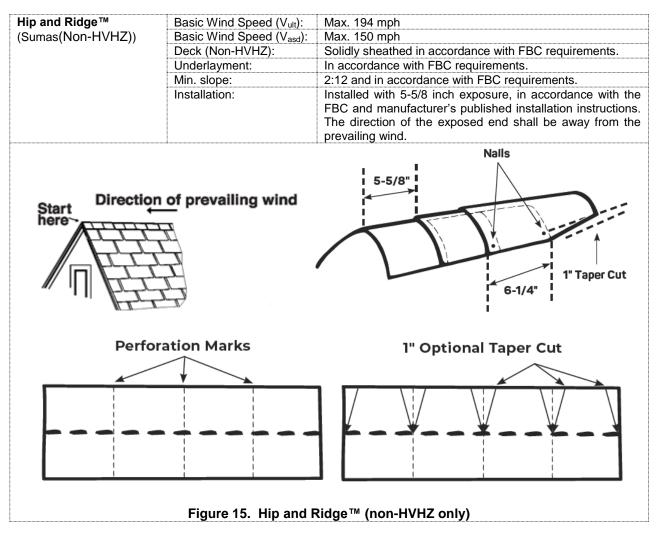


|  |                                       | Marc 404 and  |  |  |
|--|---------------------------------------|---|--|--|
| Hip & Ridge™ 12  | Basic Wind Speed (Vult):              | Max. 194 mph  |  |  |
| (Calgary, Kankakee,  | Basic Wind Speed (V <sub>asd</sub> ): | Max. 150 mph  |  |  |
| Sylacauga & Toronto)   | Deck (HVHZ):                          | In accordance with FBC requirements; Solidly sheathed       |  |  |
| and  |                                       | min. 19/32 in. plywood or wood plank for new construction;  |  |  |
| anu  | Deck (Non-HVHZ):                      | Min. 15/32 in. plywood existing construction.               |  |  |
| Hip & Ridge™ Class 4   |                                       | Solidly sheathed in accordance with FBC requirements.       |  |  |
| (Calgary & Kankakee)   | Underlayment:                         | In accordance with FBC requirements.                        |  |  |
| (ouigury a rankatoo)   | Min. slope:                           | 2:12 and in accordance with FBC requirements.               |  |  |
| and  | Installation:                         | Installed with 5-5/8 inch exposure in accordance with the   |  |  |
|  |                                       | FBC and manufacturer's published installation instructions. |  |  |
| Hip & Ridge Plus™  |                                       | The direction of the exposed end shall be away from the     |  |  |
| (Calgary (Non-HVHZ))   |                                       | prevailing wind.  |  |  |
| Perforation Marks  |                                       |   |  |  |
| Start Direction of prevailing wind   |                                       |   |  |  |
|  |                                       | Nails   |  |  |
|  | 5-5/8"<br>                            |   |  |  |
| 4  |                                       | 1" Taper Cut<br>6-1/4"                                      |  |  |
| Figure 14. Hip & Ridge™ 12, Hip & Ridge Class 4 and<br>Hip & Ridge Plus™ (non-HVHZ only) |                                       |   |  |  |

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| Armour Starter™       | Basic Wind Speed (Vult):   | Max. 194 mph  |
|-----------------------|--|---|
| (Calgary)             | Basic Wind Speed (V <sub>alt</sub> ):<br>Basic Wind Speed (V <sub>asd</sub> ): | Max. 150 mph  |
|                       | ······   | In accordance with FBC requirements; Solidly sheathed   |
|                       | Deck (HVHZ):   | min. 19/32 in. plywood or wood plank for new construction;  |
|                       |  | Min. 15/32 in. plywood existing construction.   |
|                       | Deck (Non-HVHZ):   | Solidly sheathed in accordance with FBC requirements.   |
|                       | Underlayment:  | In accordance with FBC requirements.  |
|                       | Min. slope:  | 2:12 and in accordance with FBC requirements.   |
|                       | Installation:  | Installed in accordance with the FBC and manufacturer's   |
|                       |  | published installation instructions. Shall be attached with min. 1" x 12 ga. roofing nails with min. 3/8-inch head. |
| Sta                   | ndard Application Req  | uires <b>4 Nails</b> /Fasteners   |
|                       |  |   |
| E                     |  |   |
| E E                   |  |   |
| T                     |  | Match Color   |
|                       | STARTER COURSE   | to Selected   |
|                       |  |   |
|                       | 1" and 13" from Each   |   |
|                       |  | Shingle   |
|                       | Figure 16. A   | rmour Starter™  |
| Leading Edge Plus™    | Basic Wind Spood (V/):   | Max 104 mph   |
| (Calgary (Non-HVHZ) & | Basic Wind Speed (V <sub>ult</sub> ):  | Max. 194 mph  |
| Hawkesbury)           | Basic Wind Speed (V <sub>asd</sub> ):  | Max. 150 mph<br>In accordance with FBC requirements; Solidly sheathed   |
| Tawkesbury)           | Deck (HVHZ):   | min. 19/32 in. plywood or wood plank for new construction<br>Min. 15/32 in. plywood existing construction.          |
|                       | Deck (Non-HVHZ):   | Solidly sheathed in accordance with FBC requirements.   |
|                       | Underlayment:  | In accordance with FBC requirements.  |
|                       | Min. slope:  | 2:12 and in accordance with FBC requirements.   |
|                       | Installation:  | Installed in accordance with the FBC and manufacturer's   |
|                       | motanation.  | published installation instructions. Shall be attached with   |
|                       |  | min. 1" x 12 ga. roofing nails with min. 3/8-inch head.   |
|                       | Application<br>4 Nails/Fasteners   | 1" from Each End  |
|                       |  |   |
| L                     |  | 3" to 4" from Bottom  |

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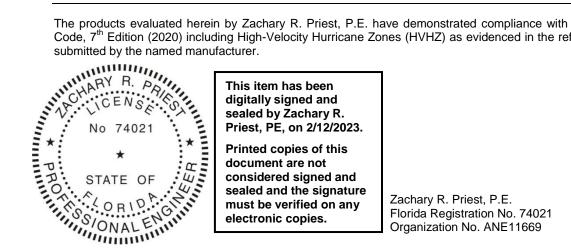


#### LIMITATIONS

- 1) Fire Classification is not within the scope of this evaluation.
- The roof deck and the roof deck attachment shall be designed by others to meet the minimum design loads 2) established for components and cladding and in accordance with FBC requirements.
- 3) The mean roof height shall be restricted to a maximum 33 ft in the HVHZ.
- 4) Deck substrates shall be clean, dry, and free from any irregularities and debris. All fasteners in the deck shall be checked for protrusion and corrected prior to underlayment application.
- 5) Shingles shall be installed starting at the eave in horizontal layers such that the laps shed water from the deck.
- 6) Installation of the evaluated products shall comply with this report, the FBC, and the manufacturer's published application instructions. Where discrepancies exist between these sources, the more restrictive and code compliant detail shall prevail.
- 7) All products listed in this report shall be manufactured under a quality assurance program in compliance with Rule 61G20-3.

#### **COMPLIANCE STATEMENT**

The products evaluated herein by Zachary R. Priest, P.E. have demonstrated compliance with the Florida Building Code, 7<sup>th</sup> Edition (2020) including High-Velocity Hurricane Zones (HVHZ) as evidenced in the referenced documents submitted by the named manufacturer.



#### **CERTIFICATION OF INDEPENDENCE**

CREEK Technical Services, LLC does not have, nor will it acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

CREEK Technical Services, LLC is not owned, operated, or controlled by any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any company manufacturing or distributing products under this evaluation.

Zachary R. Priest, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

## END OF REPORT

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