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

Issued October 20, 2023

### **EVALUATION REPORT**

# FLORIDA BUILDING CODE, 8<sup>TH</sup> EDITION (2023)

Manufacturer: IKO INDUSTRIES LTD

40 Hansen Rd S

Brampton, ON L6W 3H4

Canada

(905) 457-2880 www.iko.com

Manufacturing Plants: Brampton, Ontario

Calgary, Alberta Hawkesbury, Ontario

Hillsboro, TX Kankakee, IL Sumas, WA Sylacauga, AL Toronto, Ontario

**Quality Assurance:** PRI Construction Materials Technologies (QUA9110)

SCOPE

Category: Roofing

Subcategory: Asphalt Shingles

Code Edition: Florida Building Code, 8<sup>th</sup> Edition (2023) 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.	<u>Standard</u>	<u>Year</u>
FM Approvals (TST1867)	3036971	FM 4475	2010
FM Approvals (TST1867)	3040947	FM 4475	2010
		ASTM E 108	2017
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	2023
PRI Construction Materials Technologies (TST5878)	IKO-051-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-053-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-067-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-071-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-072-02-02	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-076-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-077-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-088-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-095-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-096-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-099-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-100-02-01	TAS 107	2020
PRI Construction Materials Technologies (TST5878)	IKO-114-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-115-02-01	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-117-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-120-02-01	ASTM D 3462	2016

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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.



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<u>Entity</u>	Report No.	<u>Standard</u>	<u>Year</u>
PRI Construction Materials Technologies (TST5878)	IKO-121-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-123-02-01	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-125-02-01	TAS 107	2020
Fini Construction Materials Technologies (1313076)	INO-125-02-01	ASTM D 3161	2016a
PDI Construction Motorials Technologies (TCT5979)	IKO 126 02 01		
PRI Construction Materials Technologies (TST5878)	IKO-126-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-127-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-128-02-01	TAS 107	2020
		ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-129-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-130-02-01	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-131-02-01	TAS 107	2020
Titi oonstruction Materials Technologies (1013070)	110 101 02 01	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-140-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-148-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-153-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-171-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-171-02-02	TAS 107	2020
3		ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-171-02-03	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-198-02-01	ASTM D 3462	2016
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PRI Construction Materials Technologies (TST5878)	IKO-198-02-02	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-198-02-03	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-199-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-199-02-02	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-199-02-03	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-201-02-01	ASTM D 3462	2016
Titl Construction Materials Technologies (1313070)	110-201-02-01	ASTM E 108	2017
		ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	IKO-201-02-02	ASTM D 3016	2016a
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PRI Construction Materials Technologies (TST5878)	IKO-201-02-07	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-202-02-01	ASTM D 3462	2016
		ASTM E 108	2017
		ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	IKO-202-02-02	TAS 107	2020
		ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-202-02-07	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-203-02-01	ASTM D 3462	2016
• , ,		ASTM E 108	2017
		ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	IKO-203-02-02	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-203-02-07	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-205-02-01	ASTM D 3462	20106
FRI Constituction Materials Technologies (1313070)	110-203-02-01	ASTM E 108	20100
		ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	IKO-205-02-02	ASTM D 3010	2016a
<b>3</b> , , ,			
PRI Construction Materials Technologies (TST5878)	IKO-205-02-07	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-206-02-01	ASTM D 3462	2016
		ASTM E 108	2017
		ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	IKO-206-02-02	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	IKO-206-02-07	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	IKO-208-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-217-02-01	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	IKO-218-02-01	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476C0017.1	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476C0017.2	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	476C0017.3	ASTM E 108	2017
PRI Construction Materials Technologies (TST5878)	476C0020.1	ASTM D 3462	2016
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PRI Construction Materials Technologies (TST5878)	476C0020.3	ASTM E 108	2017
PRI Construction Materials Technologies (TST5878)	476C0033.1	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476C0033.2	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	476C0033.3	ASTM E 108	2017
PRI Construction Materials Technologies (TST5878)	476T0002	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476T0003	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476T0004	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	476T0012	ASTM D 3462	2016
		ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	476T0013	ASTM D 3161	2016a
DD1.0	1707001	TAS 107	2020
PRI Construction Materials Technologies (TST5878)	476T0021	ASTM D 3462 ASTM D 3018	2016 1990(R94)E1
PRI Construction Materials Technologies (TST5878)	476T0022	ASTM D 3016 ASTM D 3161	1990(h94)⊑1 2016a
Titi Constituction Materials Teermologies (1013070)	47010022	TAS 107	2020
PRI Construction Materials Technologies (TST5878)	476T0023	ASTM E 108	2017
PRI Construction Materials Technologies (TST5878)	476T0034	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476T0039	ASTM D 3462	2016
,		ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	476T0040	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	476T0041	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476T0042	ASTM D 3462	2016
DD1.0	17070010	ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	476T0043	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476T0044	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476T0045	ASTM D 3018 ASTM D 3161	1990(R94)E1 2016a
PRI Construction Materials Technologies (TST5878)	476T0045	TAS 100	2010a 2023
PRI Construction Materials Technologies (TST5878)	476T0046 476T0057	ASTM D 3462	2023
PRI Construction Materials Technologies (TST5878)	476T0057 476T0058	ASTM E 108	2016
3 \ ,	476T0058	ASTM D 3161	2017 2016a
PRI Construction Materials Technologies (TST5878)	476T0059	ASTM D 7158	2016a 2019ae1
PRI Construction Materials Technologies (TST5878)			
PRI Construction Materials Technologies (TST5878)	476T0107	ASTM D 3462	2016 2016
PRI Construction Materials Technologies (TST5878)	476T0111	ASTM D 3462	
PRI Construction Materials Technologies (TST5878)	476T0112	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	476T0114	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476T0115	ASTM D 3161 TAS 107	2016a 2020
PRI Construction Materials Technologies (TST5878)	476T0116	ASTM D 7158	2019ae1
PRI Construction Materials Technologies (TST5878)	476T0117	ASTM E 108	2017
PRI Construction Materials Technologies (TST5878)	476T0118	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476T0121	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476T0122	ASTM E 108	2017
PRI Construction Materials Technologies (TST5878)	476T0123	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	476T0126	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476T0132	ASTM D 3462	2016
PRI Construction Materials Technologies (TST5878)	476T0134	ASTM D 3161	2016a
PRI Construction Materials Technologies (TST5878)	476T0136	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476T0138	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476T0140	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476T0141	TAS 100	2023
	476T0141	TAS 100	2023
PRI Construction Materials Technologies (TST5878) PRI Construction Materials Technologies (TST5878)	476T0142	ASTM D 3462	2023
PRI Construction Materials Technologies (TST5878)	476T0156 476T0159	ASTM D 3462 ASTM D 3161	2016 2016a
THE CONSTRUCTION MATERIALS (FECHNOLOGIES (10100/0)	7101010	TAS 107	2016a 2020
PRI Construction Materials Technologies (TST5878)	476T0160	ASTM E 108	2017
PRI Construction Materials Technologies (TST5878)	476T0161	TAS 100	2023
PRI Construction Materials Technologies (TST5878)	476T0163.1	ASTM D 3462	2016
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Report No.	<u>Standard</u>	<u>Year</u>
476T0164	ASTM D 3161 TAS 107	2016a 2020
476T0165	ASTM E 108	2017
476T0166	TAS 100	2023
476T0186	ASTM D 3462	2016
476T0188	ASTM D 3161	2016a
47070400		2020
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		2017
476T0196	ASTM D 3161 TAS 107	2016a 2020
476T0202	TAS 100	2023
476T0207	ASTM D 3462	20106
476T0209	ASTM E 108	2017
476T0208	ASTM D 3161	2016a
		2020
		2023
		2016
476T0221	ASTM D 3161 TAS 107	2016a 2020
476T0223	ASTM E 108	2017
476T0229	ASTM D 3462	2016
476T0231	ASTM D 3161 TAS 107	2016a 2020
476T0232	TAS 100	2023
476T0233	ASTM D 7158	2019ae1
476T0234	ASTM E 108	2017
476T0242	TAS 100	2023
476T0250	ASTM D 3462	2016
476T0251	ASTM D 3161	2016a
	TAS 107	2020
476T0252	ASTM E 108	2017
476T0253	TAS 100	2023
476T0262	ASTM D 3462	2016
	476T0164  476T0165  476T0166  476T0186  476T0188  476T0189  476T0190  476T0192  476T0194  476T0196  476T0202  476T0207  476T0209  476T0208  476T0220  476T0221  476T0221  476T0223  476T0229  476T0231  476T0232  476T0234  476T0242  476T0250  476T0251	476T0164       ASTM D 3161         476T0165       ASTM E 108         476T0166       TAS 100         476T0186       ASTM D 3462         476T0188       ASTM D 3161         476T0189       ASTM E 108         476T0190       ASTM D 7158         476T0192       ASTM D 3462         476T0194       ASTM E 108         476T0202       TAS 100         476T0203       ASTM D 3161         476T0209       ASTM D 3462         476T0209       ASTM E 108         476T0210       TAS 100         476T0220       ASTM D 3161         TAS 107       TAS 100         476T0221       ASTM D 3161         TAS 107       TAS 100         476T0223       ASTM D 3161         TAS 107       TAS 107         476T0231       ASTM D 3161         TAS 107       TAS 100         476T0233       ASTM D 7158         476T0234       ASTM E 108         476T0242       TAS 100         476T0250       ASTM D 3161         TAS 107       ASTM D 3161         TAS 107       ASTM D 3161         TAS 100       ASTM D 3161         TAS 107       ASTM D



## **PRODUCT DESCRIPTION**

Roofshake™ HW (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™ (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™ (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 (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™ (Brampton, Calgary, Hawkesbury, Hillsboro, Kankakee, 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 Brampton, Calgary and Sumas shall be used in the non-HVHZ only.

Nordic™ (Calgary, Hillsboro & 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™ (Brampton, Calgary, Hawkesbury, Hillsboro, Kankakee, Sumas, 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® (Brampton, Calgary, Hawkesbury, Kankakee, 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® (Brampton, 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 Brampton and Calgary shall be used in the non-HVHZ only.

CRC Superglass® (Brampton, Calgary, Hawkesbury & 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 (Brampton, Calgary, Hawkesbury, Hillsboro, Kankakee, Sumas, Sylacauga & 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 (Brampton, Calgary, Kankakee, 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 (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.

Hip & Ridge Plus™ (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™ (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. *Shingles shall be used in the non-HVHZ only.* 

Armour Starter™ (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  $^{\text{TM}}$  shingles.

Leading Edge Plus™ (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.* 

### INSTALLATION

Roofshake™ HW	Basic Wind Speed (Vult):	Max. 194 mph
(Calgary)	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph
	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. 40/20 span rated, CDX 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 (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.

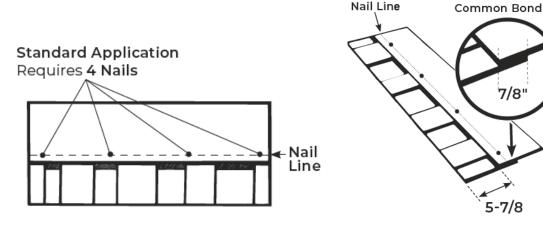


Figure 1. Roofshake™ HW 4 Nail Pattern (Non-HVHZ only)

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Armourshake™	Basic Wind Speed (Vult):	Max. 194 mph
(Sumas)	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph
	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. 40/20 span rated, CDX plywood or wood plank for new construction; Min. 15/32 in. 32/16 span rated, 4-ply, CDX 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.

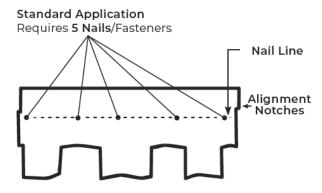


Figure 2. Armourshake™5 Nail Pattern (Non-HVHZ only)

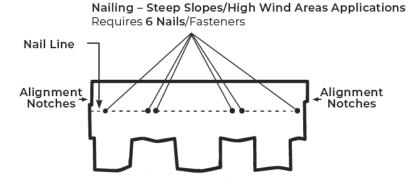


Figure 3. Armourshake™6 Nail Pattern



Royal Estate™	Basic Wind Speed (Vult):	Max. 194 mph
(Toronto)	Basic Wind Speed $(V_{asd})$ :	Max. 150 mph
	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. 40/20 span rated, CDX plywood or wood plank for new construction; Min. 15/32 in. 32/16 span rated, 4-ply, CDX 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 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.

# Standard Application Requires 4 Nails/Fasteners

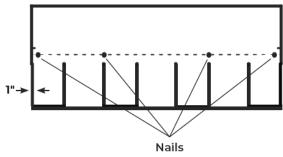


Figure 4. Royal Estate™ 4 Nail Pattern (non-HVHZ only)

# Steep Slope/High Wind Applications Requires 6 Nails/Fasteners

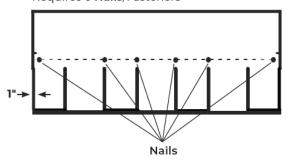
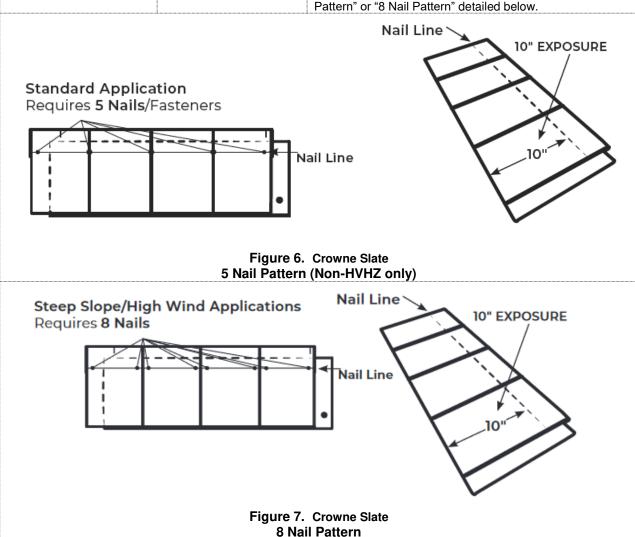


Figure 5. Royal Estate™ 6 Nail Pattern



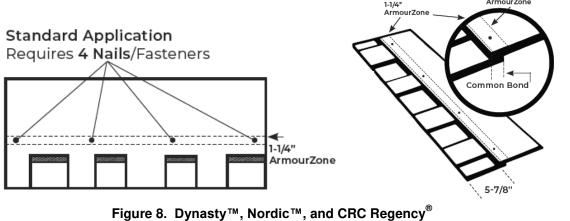
Crowne Slate	Basic Wind Speed (Vult):	Max. 194 mph
(Toronto)	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph
	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. 40/20 span rated, CDX plywood or wood plank for new construction; Min. 15/32 in. 32/16 span rated, 4-ply, CDX 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 in. exposure in accordance with RAS 115 and manufacturer's published installation instructions. Shingles shall be attached using "8 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 "5 Nail Pattern" or "8 Nail Pattern" detailed below.

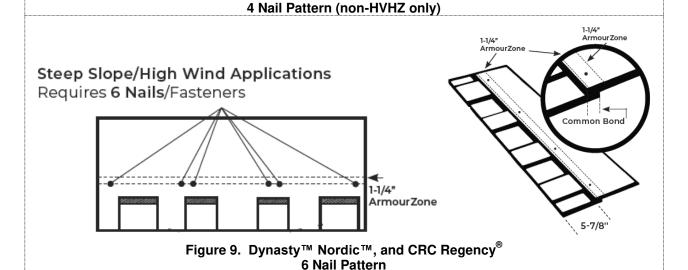


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Dynasty™	Basic Wind Speed (Vult):	Max. 194 mph
(Brampton (Non-HVHZ),	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph
Calgary (Non-HVHZ), Hawkesbury, Kankakee, Sumas (Non-HVHZ) & Sylacauga)	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. 40/20 span rated, CDX plywood or wood plank for new construction; Min. 15/32 in. 32/16 span rated, 4-ply, CDX plywood existing construction.
	Deck (Non-HVHZ):	Solidly sheathed in accordance with FBC requirements.
and	Underlayment:	In accordance with FBC requirements.
Nordic™ (Calgary, Hillsboro (Non-	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.
HVHZ) & Kankakee) and	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.
CRC Regency® (Brampton (Non-HVHZ), Calgary (Non-HVHZ) & Hawkesbury)	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.
		1-1/4* Arrogur7ope

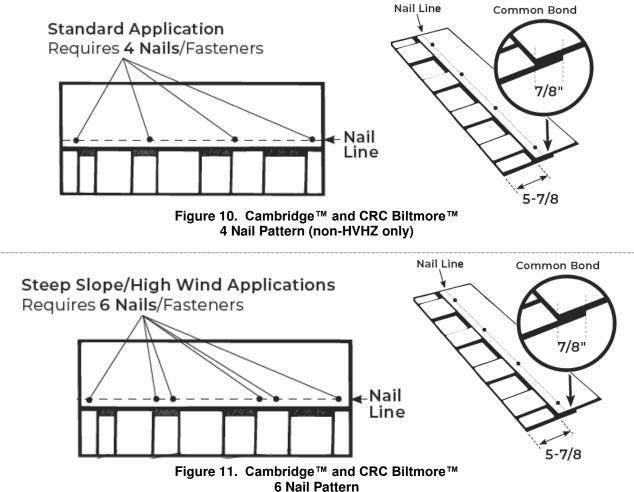




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Cambridge™	Basic Wind Speed (Vult):	Max. 194 mph
(Brampton (Non-HVHZ),	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph
Calgary (Non-HVHZ),	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed
Hawkesbury, Hillsboro,		min. 19/32 in. 40/20 span rated, CDX plywood or wood
Kankakee, Sumas, Sylacauga & Toronto		plank for new construction; Min. 15/32 in. 32/16 span rated, 4-ply, CDX plywood existing construction.
(Non-HVHZ))	Deck (Non-HVHZ):	Solidly sheathed in accordance with FBC requirements.
	Underlayment:	In accordance with FBC requirements.
and  CRC Biltmore™ (Brampton (Non-HVHZ), Calgary (Non-HVHZ), Hawkesbury, Kankakee, Sumas (Non-HVHZ) & Toronto (Non-HVHZ))	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.
Nail Line Common Bond		





CRC Superglass™	Basic Wind Speed (Vult):	Max. 194 mph
(Brampton, Calgary (Non-	Basic Wind Speed (Vasd):	Max. 150 mph
HVHZ), Hawkesbury, & Toronto (Non-HVHZ)) and	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. 40/20 span rated, CDX plywood or wood plank for new construction; Min. 15/32 in. 32/16 span rated, 4-ply, CDX plywood existing construction.
	Deck (Non-HVHZ):	Solidly sheathed in accordance with FBC requirements.
Marathon™ Plus AR	Underlayment:	In accordance with FBC requirements.
(Brampton, Calgary (Non-HVHZ), Hawkesbury, Hillsboro, Kankakee, Sumas (Non-HVHZ), Sylacauga & Toronto (Non-HVHZ))	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.

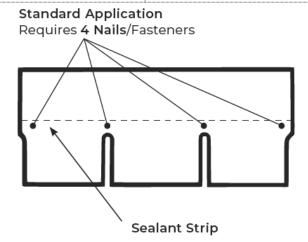
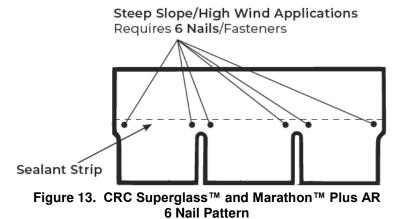


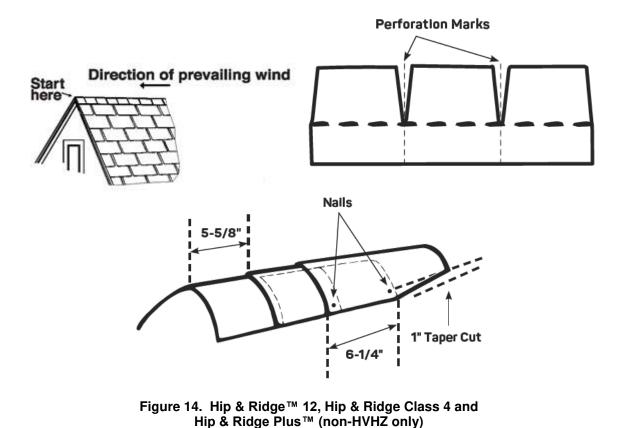
Figure 12. CRC Superglass™ and Marathon™ Plus AR 4 Nail Pattern (non-HVHZ only)



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Hip & Ridge™ 12	Basic Wind Speed (Vult):	Max. 194 mph
(Brampton, Calgary,	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph
Kankakee, Sylacauga & Toronto)	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. 40/20 span rated, CDX plywood or wood plank for new construction; Min. 15/32 in. 32/16 span rated, 4-ply, CDX plywood existing construction.
and	Dook (Non U)/UZ):	Solidly sheathed in accordance with FBC requirements.
III. O Distant M Olege 4	Deck (Non-HVHZ):	\$
Hip & Ridge™ Class 4	Underlayment:	In accordance with FBC requirements.
(Calgary & Kankakee)	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™ (Calgary (Non-HVHZ))		The direction of the exposed end shall be away from the prevailing wind.

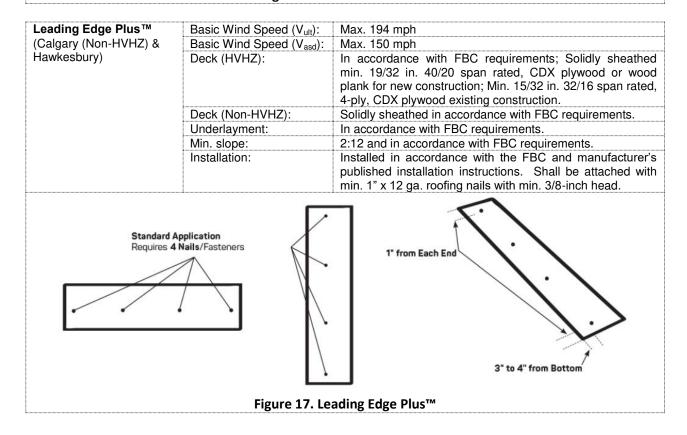




Hip and Ridge™	Basic Wind Speed (Vult):	Max. 194 mph		
(Sumas(Non-HVHZ))	Basic Wind Speed (Vasd):	Max. 150 mph		
	Deck (Non-HVHZ):	Solidly sheathed in accordance with FBC requirements.		
	Underlayment:	In accordance with FBC requirements.		
	Min. slope:	2:12 and in accordance with FBC requirements.		
	Installation:	Installed with 5-5/8 inch exposure, in accordance with the		
		FBC and manufacturer's published installation instructions.		
		The direction of the exposed end shall be away from the		
		prevailing wind.		
		Nalls		
Start here    5-5/8"     1" Taper Cut				
Perforation Marks		1" Optional Taper Cut		
Figure 15. Hip and Ridge™ (non-HVHZ only)				



Armour Starter™	Basic Wind Speed (Vult):	Max. 194 mph		
(Calgary)	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph		
	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed min. 19/32 in. 40/20 span rated, CDX plywood or wood plank for new construction; Min. 15/32 in. 32/16 span rated, 4-ply, CDX 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.		
Standard Application Requires 4 Nails/Fasteners				
	STARTER COURSE 1" and 13" from Each	Match Color to Selected End Armourshake Shingle		
Figure 16. Armour Starter™				



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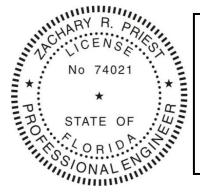


### LIMITATIONS

- 1) Fire Classification is not within the scope of this evaluation.
- 2) The roof deck and the roof deck attachment shall be designed by others to meet the minimum design loads established for components and cladding and in accordance with FBC requirements.
- 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, 8<sup>th</sup> Edition (2023) including High-Velocity Hurricane Zones (HVHZ) as evidenced in the referenced documents submitted by the named manufacturer.



This item has been digitally signed and sealed by Zachary R. Priest, PE, on 10/20/2023.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Optially signed by Zachary R. Priest

2023.10.20

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Zachary R. Priest, P.E. Florida Registration No. 74021 Organization No. ANE11669

### **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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