CREEK
TECHNICAL SERVICES, LLC

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

EVALUATION REPORT

FLORIDA BUILDING CODE, 7TH EDITION (2020)

Issued February 12, 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, 7th 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

Entity	Report No.	Standard	Year
FM Approvals (TST1867)	3036971	FM 4475	2010
FM Approvals (TST1867)	3040947	FM 4475 ASTM E 108	2010 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

Entity	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
		ASTM D 3161	2016
PRI Construction Materials Technologies (TST5878)	IKO-129-02-01	ASTM D 3462	2010A
PRI Construction Materials Technologies (TST5878)	IKO-130-02-01	ASTM D 3161	2016
PRI Construction Materials Technologies (TST5878)	IKO-131-02-01	TAS 107	2020
		ASTM D 3161	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
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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
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PRI Construction Materials Technologies (TST5878)	IKO-201-02-01	ASTM D 3462	2010A
		ASTM E 108	2016
		ASTM D 3018	1990(R94)E1
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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
		ASTM D 3018	1990(R94)E1
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		ASTM D 3161	2016
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
		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
		ASTM D 3018	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	IKO-205-02-02	ASTM D 3161	2016
PRI Construction Materials Technologies (TST5878)	IKO-205-02-07	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	IKO-206-02-01	ASTM D 3462	2010A
		ASTM E 108	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

Entity	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
		TAS 107	2020
PRI Construction Materials Technologies (TST5878)	476T0021	ASTM D 3462	2010A
		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
		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
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PRI Construction Materials Technologies (TST5878)	476T0043	TAS 100	1995
PRI Construction Materials Technologies (TST5878)	476T0044	ASTM D 3462	2010A
		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	ASTM E 108	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
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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

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

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™ (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 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® (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® (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 (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 (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™ 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 (Calgary)	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

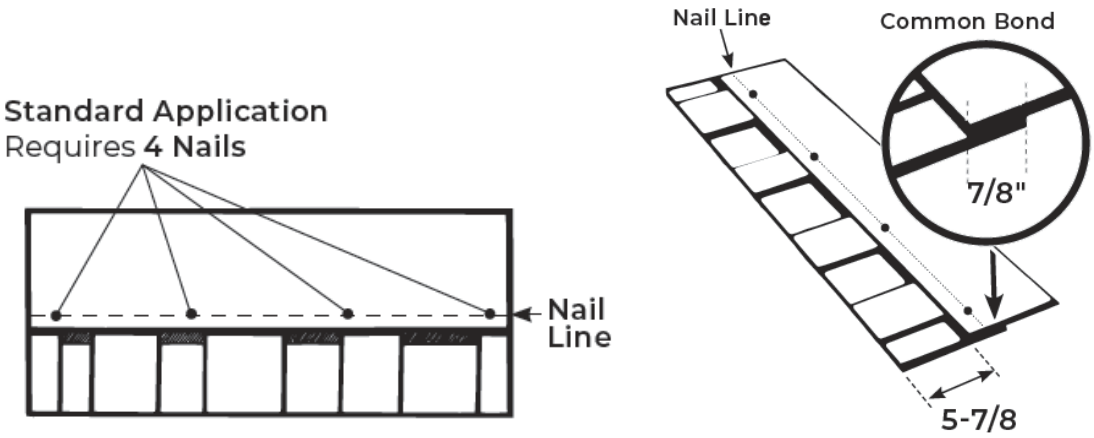

Figure 1. Roofshake™ HW
4 Nail Pattern (Non-HVHZ only)

Armourshake™ (Sumas)	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

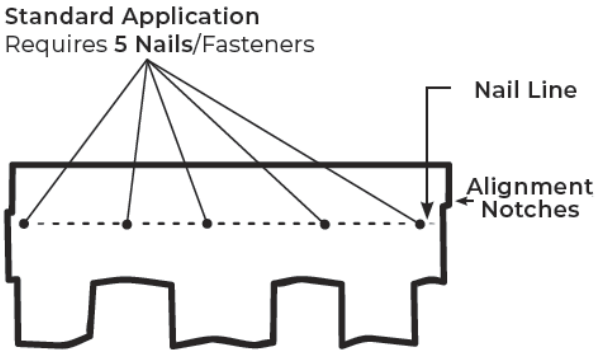

Figure 2. Armourshake™
5 Nail Pattern (Non-HVHZ only)

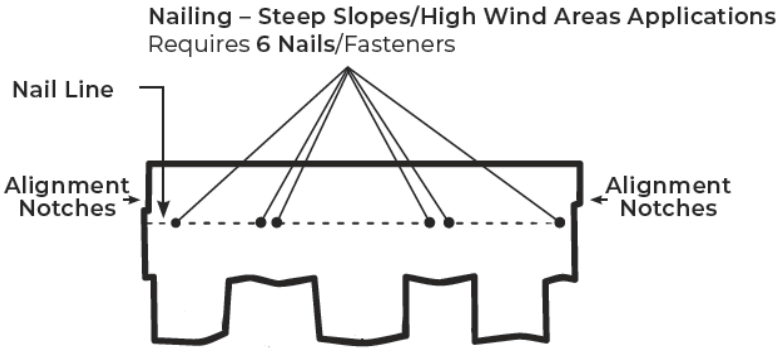

Figure 3. Armourshake™
6 Nail Pattern

Royal Estate™ (Toronto)	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

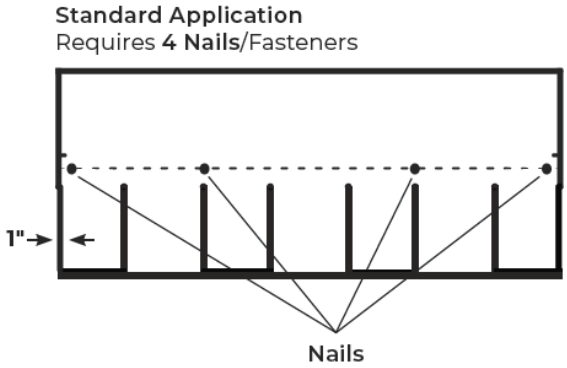

Figure 4. Royal Estate™
4 Nail Pattern (non-HVHZ only)

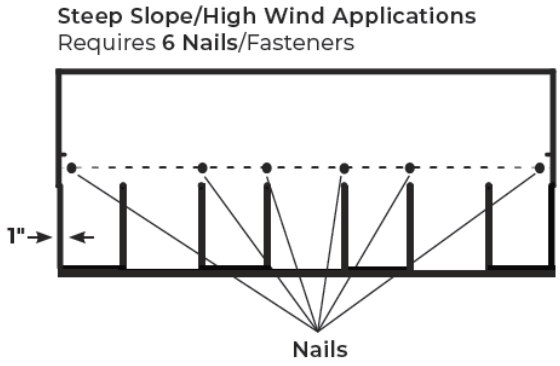

Figure 5. Royal Estate™
6 Nail Pattern

Crowne Slate (Toronto)	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

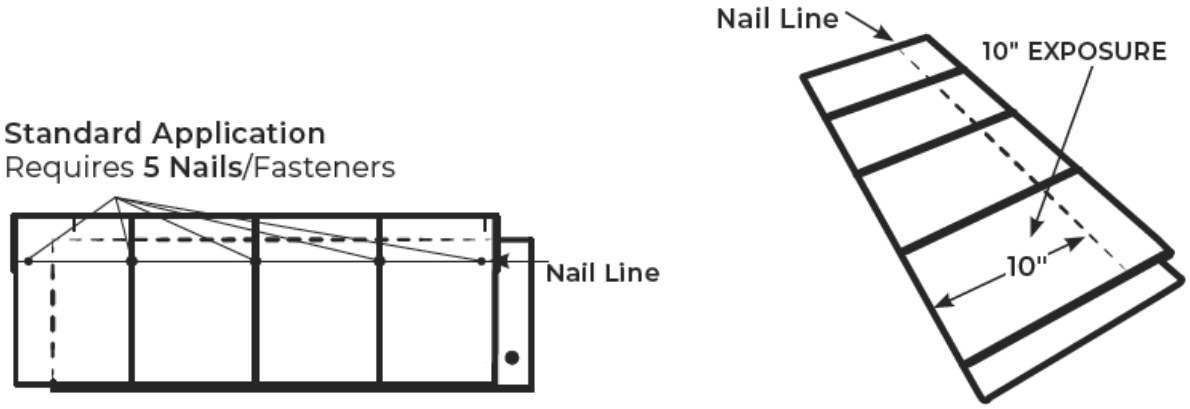

Figure 6. Crowne Slate
5 Nail Pattern (Non-HVHZ only)

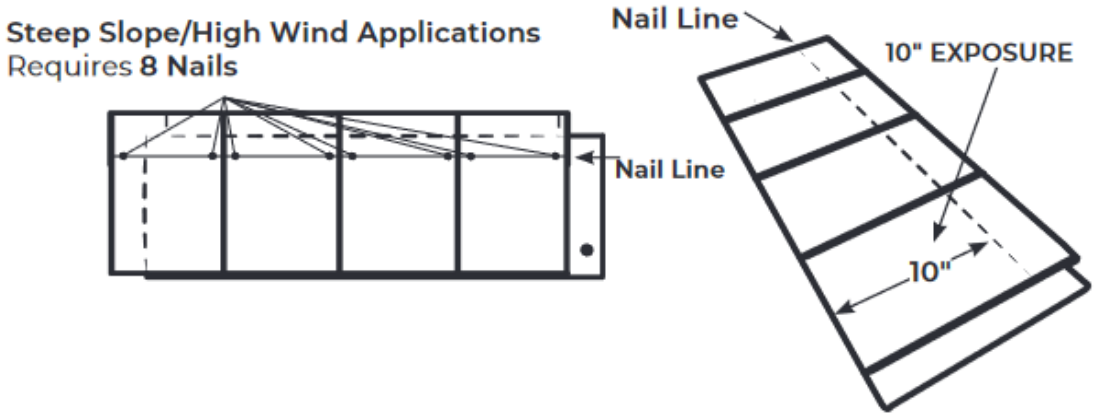

Figure 7. Crowne Slate
8 Nail Pattern

Dynasty™ (Calgary (Non-HVHZ), Hawkesbury, Kankakee, Sumas (Non-HVHZ) & Sylacauga) and **Nordic™** (Calgary, Hillsboro (Non-HVHZ) & Kankakee) and **CRC Regency®** (Calgary (Non-HVHZ) & Hawkesbury)	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

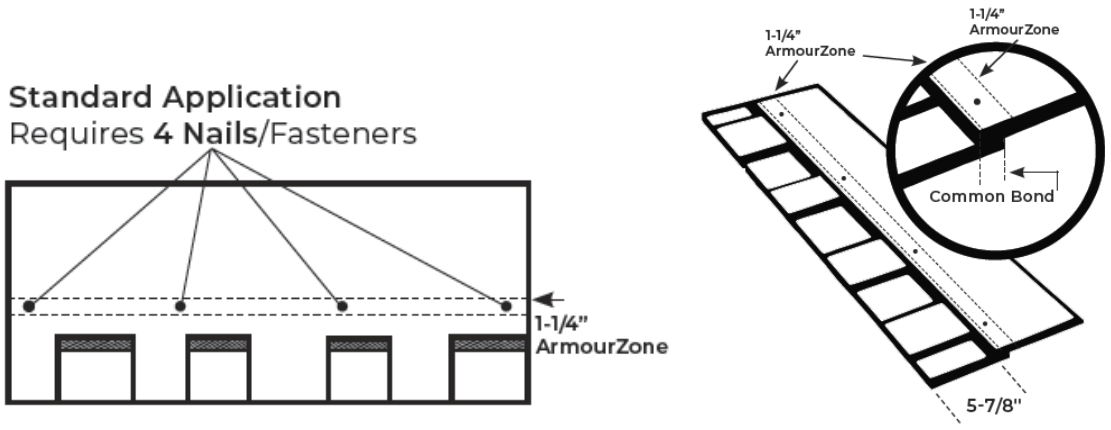

Figure 8. Dynasty™, Nordic™, and CRC Regency®
4 Nail Pattern (non-HVHZ only)

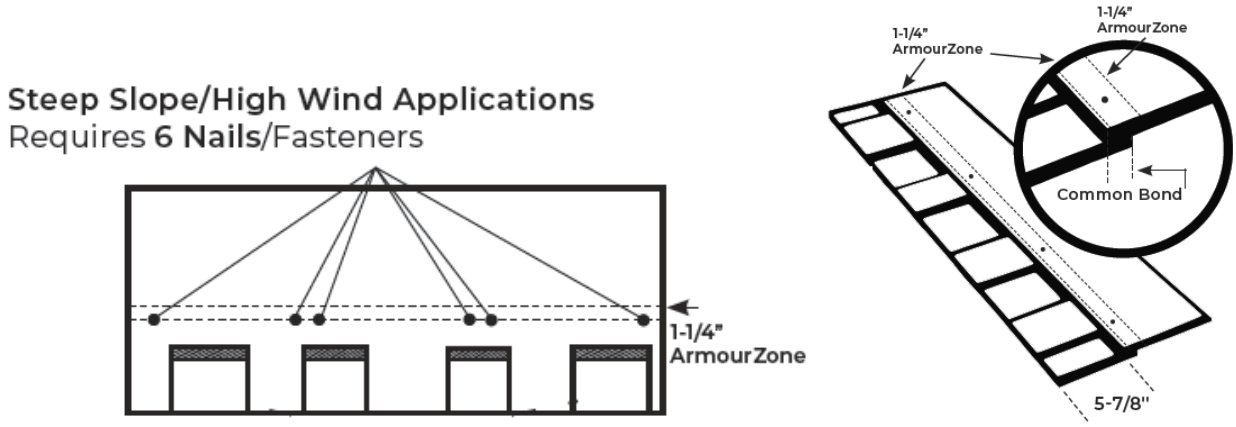

Figure 9. Dynasty™ Nordic™, and CRC Regency®
6 Nail Pattern

Cambridge™ (Brampton (Non-HVHZ), Calgary (Non-HVHZ), Hawkesbury, Hillsboro, Kankakee, Sumas, Sylacauga & Toronto (Non-HVHZ)) and **CRC Biltmore™** (Brampton (Non-HVHZ), Calgary (Non-HVHZ), Hawkesbury, Kankakee, Sumas (Non-HVHZ) & Toronto (Non-HVHZ))	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

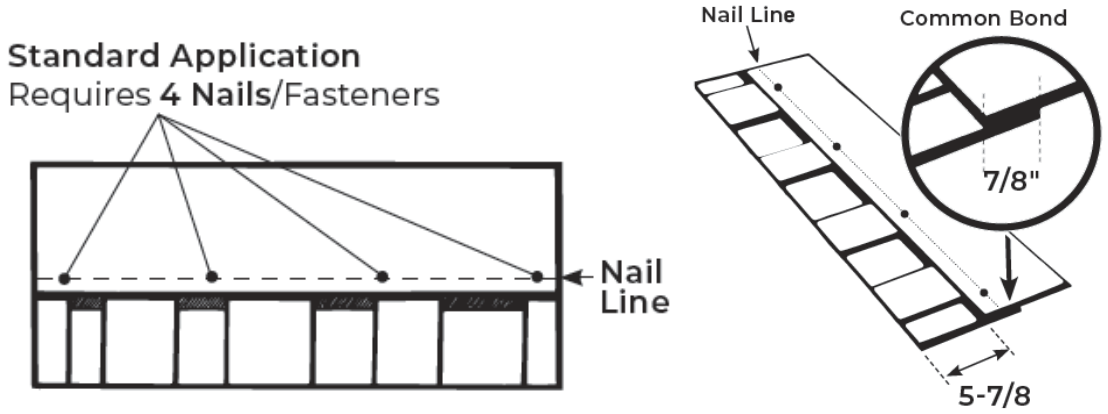

Figure 10. Cambridge™ and CRC Biltmore™ 4 Nail Pattern (non-HVHZ only)

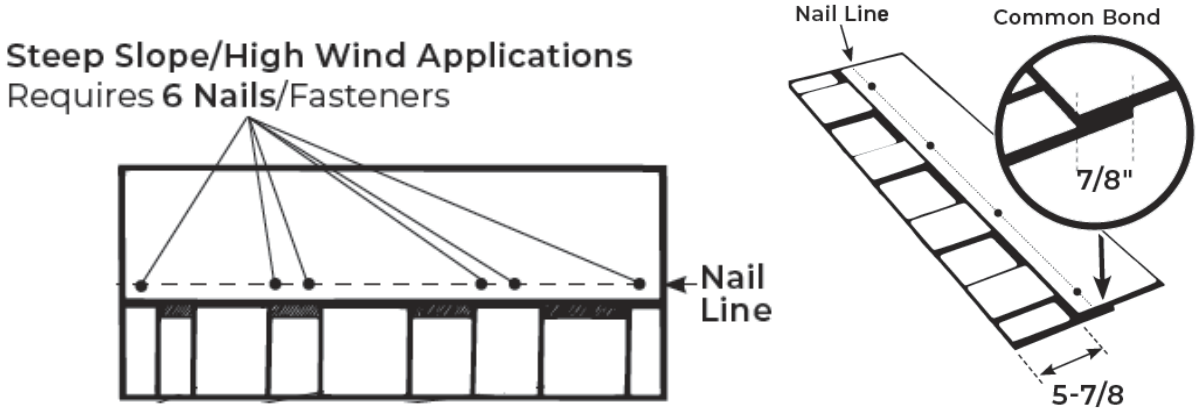

Figure 11. Cambridge™ and CRC Biltmore™ 6 Nail Pattern

CRC Superglass™ (Calgary (Non-HVHZ), Hawkesbury, & Toronto (Non-HVHZ)) and **Marathon™ Plus AR** (Calgary (Non-HVHZ), Hawkesbury, Hillsboro, Kankakee, Sumas (Non-HVHZ), Sylacauga & Toronto (Non-HVHZ))	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

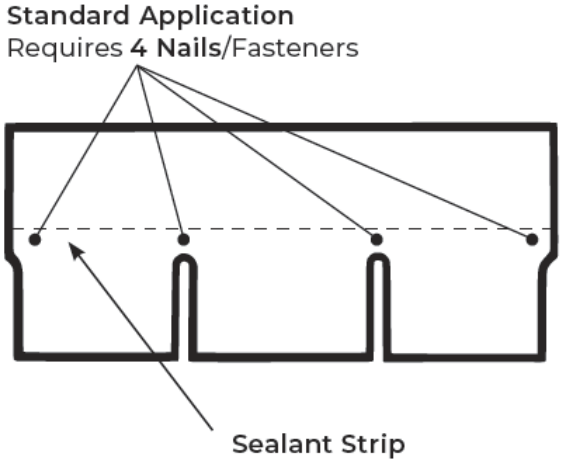

Figure 12. CRC Superglass™ and Marathon™ Plus AR 4 Nail Pattern (non-HVHZ only)

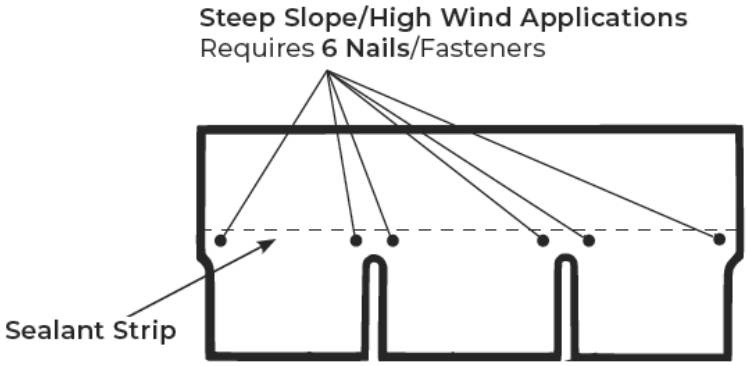

Figure 13. CRC Superglass™ and Marathon™ Plus AR 6 Nail Pattern

Hip & Ridge™ 12 (Calgary, Kankakee, Sylacauga & Toronto) and **Hip & Ridge™ Class 4** (Calgary & Kankakee) and **Hip & Ridge Plus™** (Calgary (Non-HVHZ))	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

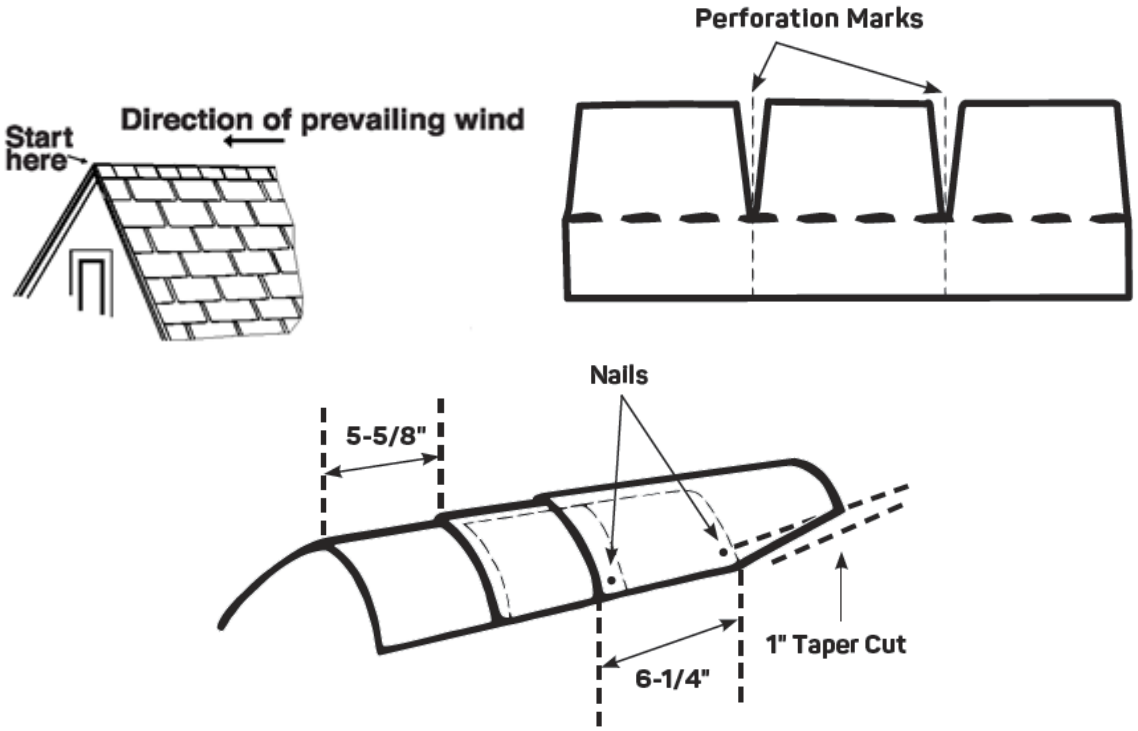

Figure 14. Hip & Ridge™ 12, Hip & Ridge Class 4 and Hip & Ridge Plus™ (non-HVHZ only)

Hip and Ridge™ (Sumas(Non-HVHZ))	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.

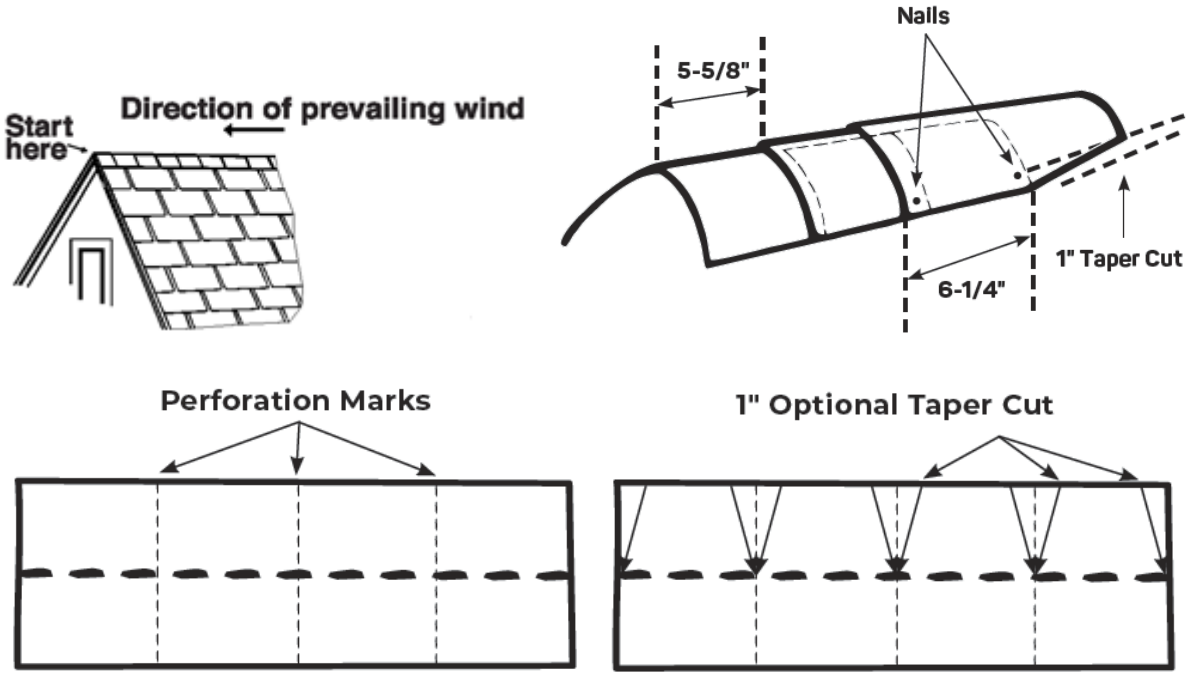

Figure 15. Hip and Ridge™ (non-HVHZ only)

Armour Starter™ (Calgary)	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

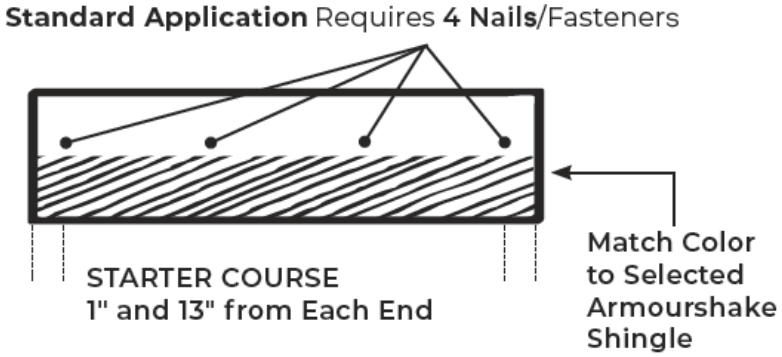

Figure 16. Armour Starter™

Leading Edge Plus™ (Calgary (Non-HVHZ) & Hawkesbury)	Basic Wind Speed (V_{ult}):	Max. 194 mph
	Basic Wind Speed (V_{asd}):	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.
	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.

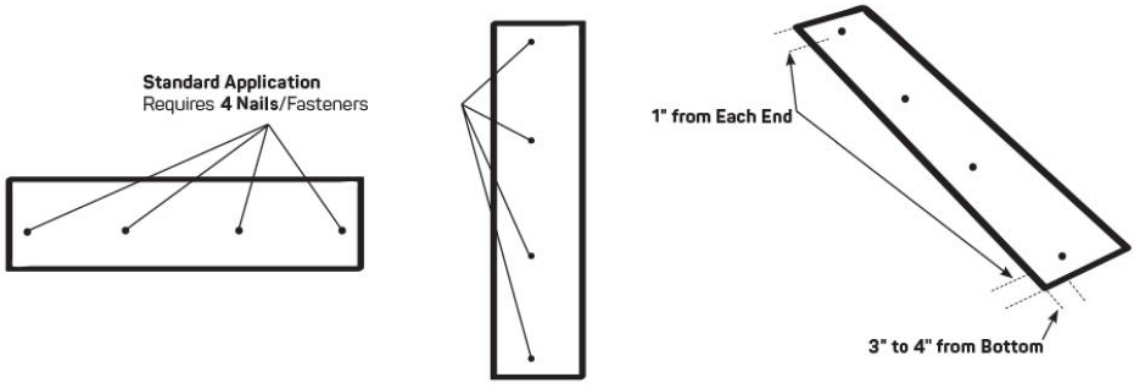

Figure 17. Leading Edge Plus™

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.
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, 7th Edition (2020) 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 2/12/2023.

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

Digitally signed by Zachary R. Priest

2023.02.12 15:27:47 -05'00'

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