

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 40 Hansen Rd S Brampton, ON L6W 3H4 Canada (905) 457-2880 www.iko.com	lssued December 21, 2021
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: Roo	fing	

Category:	Roofing
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

		<b>.</b>	
Entity	<u>Report No.</u>	<u>Standard</u>	<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

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Entity		Report No.	Standard	Year
PRI Constru	ction Materials Technologies (TST5878)	IKO-121-02-01	ASTM D 3462	2010A
PRI Constru	ction Materials Technologies (TST5878)	IKO-123-02-01	ASTM D 3161	2016
PRI Constru	ction Materials Technologies (TST5878)	IKO-125-02-01	TAS 107	2020
			ASTM D 3161	2016
	ction Materials Technologies (TST5878)	IKO-126-02-01	TAS 100	1995
	ction Materials Technologies (TST5878)	IKO-127-02-01	ASTM D 3462	2010A
PRI Constru	ction Materials Technologies (TST5878)	IKO-128-02-01	TAS 107	2020
DDI Constru	uction Motoriala Technologiaa (TOTE070)	IKO 120 02 01	ASTM D 3161	2016
	ction Materials Technologies (TST5878)	IKO-129-02-01	ASTM D 3462	2010A
	<b>3</b> ( )	IKO-130-02-01	ASTM D 3161	2016
PRICONSIL	ction Materials Technologies (TST5878)	IKO-131-02-01	TAS 107 ASTM D 3161	2020 2016
PRI Constru	ction Materials Technologies (TST5878)	IKO-140-02-01	ASTM D 3462	2010A
	iction Materials Technologies (TST5878)	IKO-148-02-01	TAS 100	1995
	iction Materials Technologies (TST5878)	IKO-153-02-01	TAS 100	1995
	iction Materials Technologies (TST5878)	IKO-171-02-01	ASTM D 3462	2010A
	iction Materials Technologies (TST5878)	IKO-171-02-02	TAS 107	2020
			ASTM D 3161	2016
PRI Constru	ction Materials Technologies (TST5878)	IKO-171-02-03	TAS 100	1995
PRI Constru	ction Materials Technologies (TST5878)	IKO-198-02-01	ASTM D 3462	2010A
PRI Constru	ction Materials Technologies (TST5878)	IKO-198-02-02	TAS 100	2020
PRI Constru	ction Materials Technologies (TST5878)	IKO-198-02-03	ASTM D 3161	2016
PRI Constru	ction Materials Technologies (TST5878)	IKO-199-02-01	ASTM D 3462	2010A
PRI Constru	ction Materials Technologies (TST5878)	IKO-199-02-02	TAS 100	1995
	ction Materials Technologies (TST5878)	IKO-199-02-03	ASTM D 3161	2016
PRI Constru	ction Materials Technologies (TST5878)	IKO-201-02-01	ASTM D 3462	2010A
	<b>C</b> ( , , ,		ASTM E 108	2016
			ASTM D 3018	1990(R94)E1
	iction Materials Technologies (TST5878)	IKO-201-02-02	ASTM D 3161	2016
	iction Materials Technologies (TST5878)	IKO-201-02-07	TAS 100	1995
PRI Constru	ction Materials Technologies (TST5878)	IKO-202-02-01	ASTM D 3462	2010A
			ASTM E 108 ASTM D 3018	2011 1990(R94)E1
PRI Constru	ction Materials Technologies (TST5878)	IKO-202-02-02	TAS 107	2020
			ASTM D 3161	2016
PRI Constru	ction Materials Technologies (TST5878)	IKO-202-02-07	TAS 100	1995
PRI Constru	ction Materials Technologies (TST5878)	IKO-203-02-01	ASTM D 3462	2010A
			ASTM E 108	2011
	ation Materials Taskasalanias (TOTE070)		ASTM D 3018	1990(R94)E1
	iction Materials Technologies (TST5878)	IKO-203-02-02	ASTM D 3161	2016
	iction Materials Technologies (TST5878)	IKO-203-02-07	TAS 100	1995
PRI Constru	ction Materials Technologies (TST5878)	IKO-205-02-01	ASTM D 3462 ASTM E 108	2010A 2016
			ASTM D 3018	1990(R94)E1
PRI Constru	ction Materials Technologies (TST5878)	IKO-205-02-02	ASTM D 3161	2016
	ction Materials Technologies (TST5878)	IKO-205-02-07	TAS 100	1995
	iction Materials Technologies (TST5878)	IKO-206-02-01	ASTM D 3462	2010A
			ASTM E 108	2016
			ASTM D 3018	1990(R94)E1
	ction Materials Technologies (TST5878)	IKO-206-02-02	ASTM D 3161	2016
	ction Materials Technologies (TST5878)	IKO-206-02-07	TAS 100	1995
	ction Materials Technologies (TST5878)	IKO-208-02-01	ASTM D 3462	2010A
	ction Materials Technologies (TST5878)	IKO-217-02-01	ASTM D 3462	2010A
	ction Materials Technologies (TST5878)	IKO-218-02-01	TAS 100	1995
	ction Materials Technologies (TST5878)	476C0017.1	ASTM D 3462	2010A
	ction Materials Technologies (TST5878)	476C0017.2	ASTM D 3161	2016
	ction Materials Technologies (TST5878)	476C0017.3	ASTM E 108	2016
	ction Materials Technologies (TST5878)	476C0020.1	ASTM D 3462	2010A
PRI Constru	ction Materials Technologies (TST5878)	476C0020.2	ASTM D 3161	2016

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Entity	Report No.	Standard	<u>Year</u>
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	<b>ASTM E 108</b>	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
DDI Construction Motoriala Tachnologiaa (TCTE070)	47670004	TAS 107	2020 2010A
PRI Construction Materials Technologies (TST5878)	476T0021	ASTM D 3462 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	<b>ASTM E 108</b>	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
DDI Construction Motoriala Tachnologiaa (TCTE070)	47670042	ASTM D 3018 TAS 100	1990(R94)E1
PRI Construction Materials Technologies (TST5878)	476T0043		1995
PRI Construction Materials Technologies (TST5878)	476T0044	ASTM D 3462 ASTM D 3018	2010A 1990(R94)E1
PRI Construction Materials Technologies (TST5878)	476T0045	ASTM D 3010 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)	476T0101	ASTM D 3462	2010A
PRI Construction Materials Technologies (TST5878)	476T0112	ASTM D 3161	2016
PRI Construction Materials Technologies (TST5878)	476T0112	ASTM D 3462	2010A
PRI Construction Materials Technologies (TST5878)	476T0115	ASTM D 3161	2016
	4/010113	TAS 107	2020
PRI Construction Materials Technologies (TST5878)	476T0116	ASTM D 7158	2019ae1
PRI Construction Materials Technologies (TST5878)	476T0117	<b>ASTM E 108</b>	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	<b>ASTM E 108</b>	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
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### **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™ (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. <i>Shingles manufactured in Calgary, Sumas and Toronto shall be used in the non-HVHZ only.</i>
Hip & Ridge™ 12 (Calgary, Kankakee & Sylacauga)	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.

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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. <i>Shingles shall be used in the non-HVHZ only.</i>
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<sup>™</sup> (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.
	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.
Standard Ap Requires 4 N		Nail Line
Figure 1. Roofshake™ HW 4 Nail Pattern (Non-HVHZ only)		

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Armourshake™	Basia Wind Speed (V/ )	May 101 mak		
(Sumas)	Basic Wind Speed (V <sub>ult</sub> ): Basic Wind Speed (V <sub>asd</sub> ):	Max. 194 mph Max. 150 mph		
(Sullas)	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 of wood plank for		
		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			
	Requires <b>5 Nails</b> /Faste			
		└── Nail Line		
		Alignment		
	· · · · · · · · · · · · · · · · · · ·	Notches		
	ц <u></u>			
	Figure 2	A		
		Armourshake™ (Non-U)(UZ only)		
	5 Nall Pattern	(Non-HVHZ only)		
	Nailing – Steep Slopes/High Wind Areas Applications			
Requires 6 Nails/Fasteners				
<b>*</b>				
Nail Line				
Alignment Alignment				
Notches				
1 M M M				
Figure 3. Armourshake™				
	6 Na	il Pattern		

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Royal Estate™	Basic Wind Speed (Vult):	Max. 194 mph
(Toronto)	Basic Wind Speed (Val):	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.
	ı"→ ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ←	Nails Royal Estate™
		(non-HVHZ only)
	<b>Steep Slope/High</b> Requires <b>6 Nails</b> /F	Wind Applications Fasteners
	1"→ ←	Nails
		Royal Estate™ il Pattern

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Dynasty™	Basic Wind Speed (Vult):	Max. 194 mph	
(Calgary (Non-HVHZ),	Basic Wind Speed (V <sub>asd</sub> ):	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 existing	
and		construction.	
anu	Deck (Non-HVHZ):	Solidly sheathed in accordance with FBC requirements.	
Nordic™	Underlayment:	In accordance with FBC requirements.	
(Hillsboro (Non-HVHZ) &	Min. slope:	2:12 and in accordance with FBC requirements. Refer to	
Kankakee)		the manufacturer's application instructions when installing	
Namatoo)		shingles at slopes greater than 21:12.	
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	
CRC Regency®		below.	
(Calgary (Non-HVHZ) &	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.	
Standard Application Requires 4 Nails/Fasteners			
Figure 8. Dynasty™ and Nordic™ 4 Nail Pattern (non-HVHZ only)			
Steep Slope/High Wind Applications Requires 6 Nails/Fasteners			

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Combridge TM		No. 404 mak		
Cambridge™	Basic Wind Speed (Vult):	Max. 194 mph		
(Brampton (Non-HVHZ), Calgary (Non-HVHZ),	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph		
Hawkesbury, Hillsboro,	Deck (HVHZ):	In accordance with FBC requirements;		
Kankakee, Sumas,		Solidly sheathed min. 19/32 in. plywood or wood plank for new construction; Min. 15/32 in. plywood existing		
Sylacauga & Toronto		construction.		
(Non-HVHZ))	Deck (Non-HVHZ):	Solidly sheathed in accordance with FBC requirements.		
(	Underlayment:	In accordance with FBC requirements.		
and	Min. slope:	2:12 and in accordance with FBC requirements. Refer to		
CRC Biltmore™		the manufacturer's application instructions when installing shingles at slopes greater than 21:12.		
(Brampton (Non-HVHZ), Calgary (Non-HVHZ), Hawkesbury, Kankakee, Sumas (Non-HVHZ) &	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.		
Toronto (Non-HVHZ))	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 ge <sup>™</sup> and CRC Biltmore <sup>™</sup> (non-HVHZ only)		
		NollLine		
Choop Clana/UK	Nail Line Common Bond			
	Steep Slope/High Wind Applications			
Requires 6 Nail	Requires 6 Nails/Fasteners			
Nail				
Line 5-7/8				
Figure 11. Cambridge™ and CRC Biltmore™ 6 Nail Pattern				

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Hip & Ridge™ 12	Basic Wind Speed (Vult):	Max. 194 mph	
(Calgary, Kankakee &	Basic Wind Speed (Vult). Basic Wind Speed (Vasd):	Max. 150 mph	
Sylacauga)	Deck (HVHZ):	In accordance with FBC requirements; Solidly sheathed	
Gylacauga)		min. 19/32 in. plywood or wood plank for new construction;	
and		Min. 15/32 in. plywood existing construction.	
	Deck (Non-HVHZ):	Solidly sheathed in accordance with FBC requirements.	
Hip & Ridge Plus™	Underlayment:	In accordance with FBC requirements.	
(Calgary (Non-HVHZ))	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.	
		Perforation Marks	
Start Direction	on of prevailing wind		
Start here			
		h	
	Jag Le		
" 'II P	77		
		Nails	
5-5/8"			
		T 1" Topos Cut	
		1" Taper Cut	
		6-1/4"	
		i i	
	<b>- - - - - - - - - -</b>		
Figure 14. Hip & Ridge™ 12 and Hip & Ridge Plus™ (non-HVHZ only)			
	HIP & KIAGE Plus	S '''' (NON-HVHZ ONIY)	

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		·
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. 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.
Star	ndard Application Req	uires 4 Nails/Fasteners
		Match Color
	STARTER COURSE	to Selected
	1" and 13" from Each	Eng
		Shingle
	Figure 16. A	Armour Starter™
		Marc 404 mak
Leading Edge Plus™	Basic Wind Speed (Vult):	Max. 194 mph
(Calgary (Non-HVHZ) &	Basic Wind Speed (V <sub>asd</sub> ):	Max. 150 mph
Hawkesbury)	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.
		2:12 and in accordance with FBC requirements.
	Min. slope:	Installed in accordance with the FBC and manufacturer's
	Installation:	
		published installation instructions. Shall be attached with min. 1" x 12 ga. roofing nails with min. 3/8-inch head.
Standard A Requires 4	Application Nails/Fasteners	1" from Each End 3" to 4" from Bottom
	Eiguro 17 Lo	ading Edge Plus™
	Eiguro 17 Lo	ading Edge DiverM

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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.



#### 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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