

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective December 1, 2011

RC-309

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **July 2015**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads shall not exceed the allowable wind loads shown in this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Clay Roofing Tiles manufactured by

Ludowici Roof Tile
P.O. Box 69
4757 Tile Plant Road
New Lexington, Ohio 43764
Telephone: 800-945-8453

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation report, the building specifications adopted by the Texas Department of Insurance, and the manufacturer's installation instructions as referenced in the document entitled "Concrete and Clay Roof Tile Design Criteria Installation Manual for Moderate Climate Regions" April 2010, except for the attachment methods, which are specified in Tables 2 through 9 of this evaluation report.

PRODUCT DESCRIPTION

Ludowici clay roofing tiles are tiles that are manufactured from Southeastern Ohio shale and fire clay. The tiles are available in a variety of colors.

Attachment: The Ludowici clay roofing tiles specified in this report are to be installed using either a mechanical fastening system or an adhesive fastening system. The roofing tiles may be secured either directly to the roof deck or over battens.

Roofing Tile Profile Classifications: Roofing tile profiles shall be classified as one of the following:

Flat/Low profile: Flat/Low profile tiles are defined as tiles having a rise equal to or less than ½ inch.

Medium profile: Medium profile tiles are defined as tiles having a rise greater than ½ inch and a rise to width ratio of less than or equal to 1.5.

High/Barrel profile: High/Barrel profile tiles are defined as those tiles having a rise to width ratio greater than 1.5.

Roofing Tile Designations, Profile Classifications, and Dimensions: The roof tile designations, profile classifications, and dimensions for the Ludowici clay roofing tiles that apply to this product evaluation report are specified in Table 1.

**Table 1
Roofing Tile Designations, Profile, and Dimensions**

Tile Name	Alternate Name	Tile Profile	Tile		
			Length (in.)	Width	
				Total (in.)	Exposed (in)
Large Interlocking Tiles					
Americana XL	-	Flat/Low	16	10 ⁵ / ₈	10
Classic XL	Flat XL	Flat/Low	16	10 ⁵ / ₈	10
Imperial Slate	Imperial Slate XL	Flat/Low	16	10 ³ / ₁₆	9 ¹ / ₂
Lanai XL	-	Flat/Low	16	10 ⁵ / ₈	10
Ludo Shake	Shake	Flat/Low	16	10 ⁵ / ₈	10
Ludo Slate	Celedon Celedon XL Slate	Flat/Low	16	10 ⁵ / ₈	10
Williamsburg XL	-	Flat/Low	16	10 ⁵ / ₈	10
Small Interlocking Tiles					
Americana	-	Flat/Low	14	9	8 ¹ / ₄
Classic	-	Flat/Low	14	9	8 ¹ / ₄
Lanai	-	Flat/Low	14	9	8 ¹ / ₄
Williamsburg	-	Flat/Low	14	9	8 ¹ / ₄
Spanish Tiles					
13 ¹ / ₄ " Spanish	-	High/Barrel	13 ¹ / ₄	9 ³ / ₄	8 ¹ / ₄
18" Spanish	18 ³ / ₈ " Spanish	High/Barrel	18 ³ / ₈	9 ³ / ₄	8 ¹ / ₄
Mission Tiles					
14 ¹ / ₄ " Mission	-	High/Barrel	14 ¹ / ₄	8	8
16" Mission	-	High/Barrel	16	8	8
18" Mission	18 ³ / ₈ Straight Barrel Mission	High/Barrel	18 ³ / ₈	8	8
Palm Beach Mission	18 ³ / ₈ Palm Beach Mission	High/Barrel	18 ³ / ₈	8	8

INSTALLATION INSTRUCTIONS and LIMITATIONS

Roof Framing and Roof Deck: Roof framing members shall be in accordance with either the International Residential Code or the International Building Code. The roof framing members shall not be spaced greater than 24 inches on center. The roof deck shall be solidly sheathed with minimum ¹/₃₂" plywood. The roof deck shall be fastened to the roof framing members in accordance with either the International Residential Code or the International Building Code.

If the existing roof deck is a spaced board roof deck, then the spaced boards shall either be removed or covered with minimum ¹/₃₂" plywood. The plywood sheathing shall be installed over the spaced boards in accordance with either the International Residential Code or the International Building Code.

Metal drip edge: A metal drip edge shall be installed as specified in the manufacturer's installation instructions as referenced in the *Concrete and Clay Roof Tile Design Criteria Installation Manual for Moderate Climate Regions*.

Roof underlayment:

3:12 roof slope to under 4:12 roof slope: Two layers of underlayment complying with ASTM D 226, Type II (No. 30 asphalt felt) or equivalent. The underlayment shall be installed as specified in either the International Residential Code or the International Building Code and in the manufacturer's installation instructions as referenced in the document entitled *Concrete and Clay Roof Tile Design Criteria Installation Manual for Moderate Climate Regions*.

4:12 roof slope and greater: One layer of underlayment complying with ASTM D 226, Type I (No. 30 asphalt felt) or equivalent. The underlayment shall be lapped a minimum of 2" at the head laps and a minimum of 6" at the side laps. The underlayment shall be installed as specified in either the International Residential Code or the International Building Code and in the manufacturer's installation instructions as referenced in the document entitled *Concrete and Clay Roof Tile Design Criteria Installation Manual for Moderate Climate Regions*.

Self-Adhering Underlayment: Self-adhering underlayment shall comply with ASTM D 1970 and ICC-ES acceptance criteria AC152 Section 3.4 Alternate Underlayments. The self-adhering underlayment shall be installed in accordance with the self-adhering underlayment product evaluation report and the self-adhering underlayment manufacturer's installation instructions.

Battens: The roofing tiles may be installed over battens. For roof slopes greater than 7:12, battens are required. The roof deck shall be solidly sheathed with minimum $1\frac{5}{32}$ " plywood. As a minimum, the battens shall be minimum 1x2 wood members. The battens shall be spaced to allow for a minimum 3" headlap. The battens shall be fastened to the roof deck with minimum 8d common wire or box nails or equivalent size nail. The fasteners shall be spaced a maximum of 24 inches on center. Batten ends shall be separated a minimum of $\frac{1}{2}$ inch every 4 feet to allow for drainage.

Roof Tile Installation: The limitations on mean roof height and roof slope for installing the roofing tiles shall be in accordance with the following guidelines:

Roof Slope Limitations: The roofing tiles shall only be installed on buildings with a roof slope greater than or equal to 3:12 but not exceeding 12:12. Note: Battens are required when the roof slope exceeds 7:12.

Mean Roof Height Limitations: The mean roof height limitations shall be as specified in Table 2 through Table 9 for the mechanical attachment systems listed in these tables. The roofing tiles shall not be installed on structures with a mean roof height greater than 60 feet when installed using these tables.

General: The roofing tiles shall be installed in accordance with this product evaluation report and the manufacturer's installation instructions. The roofing tiles and the underlayment system shall be clean and dry at the time of their application.

The roofing tiles shall be laid out from the right to the left, starting at the right rake. The Spanish roofing tiles shall be installed with a minimum $2\frac{1}{2}$ " headlap. All other roofing tiles shall be installed with a minimum 3 inch headlap.

If battens are used, then the fasteners for the roofing tiles shall penetrate through the battens and into the roof deck.

Table 2¹
Classic XL, Americana XL, Lanai XL, Williamsburg XL

Gable/Hip Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	N/A	N/A	N/A	N/A	N/A	N/A
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A
Gable Roof						
Roof Slope: $> 6:12$ and $\leq 12:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	15 ft	30 ft	N/A	N/A	N/A
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A
Monoslope Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	N/A	N/A	N/A	N/A	N/A	N/A
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. Tables are based on an Importance Factor of 1.00.
2. Mean roof height shall be as defined in ASCE 7-05.
3. The Exposure Category for the structure location shall be as defined in ASCE 7-05.

Table 3¹
Imperial Slate, Ludo Shake, Ludo Slate

Gable/Hip Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	N/A	N/A	N/A	N/A	N/A	N/A
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A
Gable Roof						
Roof Slope: $> 6:12$ and $\leq 12:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	30 ft	N/A	30 ft	N/A	N/A	N/A
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A
Monoslope Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	N/A	N/A	N/A	N/A	N/A	N/A
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. Tables are based on an Importance Factor of 1.00.
2. Mean roof height shall be as defined in ASCE 7-05.
3. The Exposure Category for the structure location shall be as defined in ASCE 7-05.

Table 4¹
Classic, Americana, Lanai, Williamsburg

Gable/Hip Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	30 ft	N/A	N/A	N/A	N/A	N/A
Gable Roof						
Roof Slope: $> 6:12$ and $\leq 12:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	60 ft	60 ft	30 ft	60 ft	15 ft
Monoslope Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. Tables are based on an Importance Factor of 1.00.
2. Mean roof height shall be as defined in ASCE 7-05.
3. The Exposure Category for the structure location shall be as defined in ASCE 7-05.

Table 5¹
13 1/4" Spanish

Gable/Hip Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	15 ft	30 ft	N/A	N/A	N/A
Gable Roof						
Roof Slope: $> 6:12$ and $\leq 12:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	60 ft	60 ft	30 ft	60 ft	30 ft
Monoslope Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	30 ft	N/A	N/A	N/A	N/A	N/A

Notes:

1. Tables are based on an Importance Factor of 1.00.
2. Mean roof height shall be as defined in ASCE 7-05.
3. The Exposure Category for the structure location shall be as defined in ASCE 7-05.

Table 6¹
18" Spanish, 18 ³/₈" Spanish

Gable/Hip Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	30 ft	60 ft	15 ft	30 ft	N/A
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A
Gable Roof						
Roof Slope: $> 6:12$ and $\leq 12:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	15 ft	30 ft	N/A	N/A	N/A
Monoslope Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	15 ft	30 ft	N/A	N/A	N/A
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. Tables are based on an Importance Factor of 1.00.
2. Mean roof height shall be as defined in ASCE 7-05.
3. The Exposure Category for the structure location shall be as defined in ASCE 7-05.

Table 7¹
16" Mission, 14 1/4" Mission

Gable/Hip Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	60 ft	60 ft	60 ft	60 ft	30 ft
Gable Roof						
Roof Slope: $> 6:12$ and $\leq 12:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Monoslope Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	60 ft	60 ft	30 ft	60 ft	15 ft

Notes:

1. Tables are based on an Importance Factor of 1.00.
2. Mean roof height shall be as defined in ASCE 7-05.
3. The Exposure Category for the structure location shall be as defined in ASCE 7-05.

Table 8¹
18" Mission, 18 ³/₈" Mission

Gable/Hip Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	30 ft	60 ft	15 ft	30 ft	N/A
Two Copper Ring Shank Nails	60 ft	15 ft	30 ft	N/A	N/A	N/A
Gable Roof						
Roof Slope: $> 6:12$ and $\leq 12:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	60 ft	60 ft	60 ft	60 ft	30 ft
Monoslope Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	15 ft	30 ft	N/A	N/A	N/A
Two Copper Ring Shank Nails	30 ft	N/A	N/A	N/A	N/A	N/A

Notes:

1. Tables are based on an Importance Factor of 1.00.
2. Mean roof height shall be as defined in ASCE 7-05.
3. The Exposure Category for the structure location shall be as defined in ASCE 7-05.

Table 9¹
Palm Beach Mission

Gable/Hip Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	30 ft
Two Copper Ring Shank Nails	N/A	N/A	N/A	N/A	N/A	N/A
Gable Roof						
Roof Slope: $> 6:12$ and $\leq 12:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	60 ft	60 ft	60 ft
Two Copper Ring Shank Nails	60 ft	15 ft	30 ft	N/A	N/A	N/A
Monoslope Roof						
Roof Slope: $\geq 3:12$ and $\leq 6:12$						
Mechanical Fastener System	Mean Roof Height Limitation²					
	Inland II		Inland I		Seaward	
	Exposure B³	Exposure C³	Exposure B³	Exposure C³	Exposure B³	Exposure C³
Two No. 8 x 2" SS screws	60 ft	60 ft	60 ft	30 ft	60 ft	15 ft
Two Copper Ring Shank Nails	30 ft	N/A	N/A	N/A	N/A	N/A

Notes:

1. Tables are based on an Importance Factor of 1.00.
2. Mean roof height shall be as defined in ASCE 7-05.
3. The Exposure Category for the structure location shall be as defined in ASCE 7-05.

Mechanical Fastening Systems:

Fasteners: The roofing tiles shall be mechanically fastened to the roof deck. Fasteners shall be long enough to penetrate a minimum of $\frac{3}{4}$ " into or through the roof deck. The following types of fasteners may be required, depending on the installation method:

Screws: No. 8 stainless steel wood screws.

Nails: Copper 10d ring shank nails (shank diameter of 0.121", ring diameter of 0.131").

Rake Tiles: Rake tiles shall be secured to minimum Spruce-Pine-Fir lumber framing with minimum two (2) 10d box nails (3" long, 0.128" shank diameter).

Hip and Ridge Tiles: The hip and ridge tiles shall be fastened to hip and ridge boards (Dimensional lumber of sufficient height to support the hip and ridge tiles) in accordance with one of the following options:

- (1) Drill a $\frac{3}{16}$ " hole in the lower $\frac{1}{3}$ of the starter tile. Use a fastener as specified in Table 10 and secure the starter tile at both the drilled hole in the lower $\frac{1}{3}$ and at the head of the tile. Seal the head of the fastener with a UV resistant sealant.
- (2) Prior to installing the starter tile, apply a roof tile adhesive along the entire length of the starter tile. Secure the head of the starter tile with a fastener as specified in Table 10.

The remaining hip and ridge tiles are to be installed with a minimum 1" headlap. Place the toe of the tile into a 4" to 5" bead of roof tile adhesive along the head of the lower tile. The head of the hip or ridge tile is to be secured using a fastener as specified in Table 10.

Table 10
Hip and Ridge Tile Fastener Requirements

Lumber Species	Fasteners per Tile
Spruce-Pine-Fir	One (1) No. 8 wood screw
Southern Pine	One (1) No. 8 wood screw or One (1) 10d box nail

Adhesive Fastening Systems:

Adhesive fastening systems shall comply with ICC-ES AC152, **Acceptance Criteria for Adhesive Fastening of Concrete or Clay Roof Tiles**. Refer to the adhesive fastening system manufacturer product evaluation for the allowable aerodynamic uplift moment and the installation method to develop resistance equal to or greater than the code required aerodynamic uplift moment. Installation of roofing tiles using an adhesive fastening system shall be done by technicians trained and having a current certification by the adhesive fastening system manufacturer.

Adhesive fastening systems shall not be used with polyethylene or silicon surfaced underlayments.

Notes: A copy of *Concrete and Clay Roof Tile Design Criteria Installation Manual for Moderate Climate Regions* shall be available at the job site. When a self-adhering underlayment is used, the self-adhering underlayment product evaluation and the self-adhering underlayment manufacturer's installation instructions shall be available at the job site. When an adhesive fastening system is used, the adhesive fastening system product evaluation and the adhesive fastening system manufacturer's installation instructions shall be available at the job site. Fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.