

TRINITY ERD

EXTERIOR RESEARCH & DESIGN, LLC.

Certificate of Authorization #9503

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EVALUATION REPORT

Owens Corning
One Owens Corning Parkway
Toledo, OH 43659

Evaluation Report O37940.02.12-R1

FL10674-R7

Date of Issuance: 02/06/2012

Revision 1: 08/22/2012

SCOPE:

This Evaluation Report is issued under Rule 9N-3 and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for use of the product under the Florida Building Code and Florida Building Code, Residential Volume. The products described herein have been designed to comply with the 2010 FBC and 2010 FBC Residential Volume sections noted herein.

DESCRIPTION: Owens Corning Asphalt Roof Shingles

LABELING: Each unit shall bear labeling in accordance with the requirements the Accredited Quality Assurance Agency noted herein.

CONTINUED COMPLIANCE: This Evaluation Report is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this Evaluation Report by the named client constitutes agreement to notify Robert Nieminen, P.E. if the product changes or the referenced Quality Assurance documentation changes. Trinity|ERD requires a complete review of this Evaluation Report relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: The Evaluation Report number preceded by the words "Trinity|ERD Evaluated" may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, then it shall be done in its entirety.

INSPECTION: Upon request, a copy of this entire Evaluation Report shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This Evaluation Report consists of pages 1 through 6.

Prepared by:



Robert J.M. Nieminen, P.E.

Florida Registration No. 59166, Florida DCA ANE1983



The facsimile seal appearing was authorized by Robert Nieminen, P.E. on 08/22/2012. This does not serve as an electronically signed document. Signed, sealed hardcopies have been transmitted to the Product Approval Administrator and to the named client.

CERTIFICATION OF INDEPENDENCE:

1. Trinity|ERD does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates.
2. Trinity|ERD is not owned, operated or controlled by any company manufacturing or distributing products it evaluates.
3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the evaluation reports are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.

ROOFING SYSTEMS EVALUATION:**1. SCOPE:****Product Category:** Roofing**Sub-Category:** Asphalt Shingles

Compliance Statement: Owens Corning Asphalt Roof Shingles, as produced by Owens Corning, have demonstrated compliance with the following sections of the Florida Building Code and Florida Building Code, Residential Volume through testing in accordance with the following Standards. Compliance is subject to the Installation Requirements and Limitations / Conditions of Use set forth herein.

2. STANDARDS:

| <u>Section</u> | <u>Property</u> | <u>Standard</u> | <u>Year</u> |
|------------------------|---------------------|---------------------|-------------|
| 1507.2.5, R905.2.4 | Physical Properties | ASTM D3462 | 2007 |
| 1507.2.7.1, R905.2.6.1 | Wind Resistance | ASTM D3161, Class F | 2006 |
| 1507.2.7.1, R905.2.6.1 | Wind Resistance | ASTM D7158, Class H | 2007 |

3. REFERENCES:

| <u>Entity</u> | <u>Examination</u> | <u>Reference</u> | <u>Date</u> |
|----------------------|-----------------------------|----------------------------|-----------------|
| UL (CER1739) | Physicals & Wind Resistance | File R2453, Vol. 3 | 02/15/2007 |
| UL (TST1740) | Physical Properties | 06CA20263 | 04/18/2006 |
| Miami-Dade (CER1592) | FBC HVHZ Compliance | 07-1116.12 | 02/14/2008 |
| Miami-Dade (CER1592) | FBC HVHZ Compliance | 09-0915.12 | 12/16/2009 |
| Miami-Dade (CER1592) | FBC HVHZ Compliance | 10-0817.09 | 10/27/2010 |
| Miami-Dade (CER1592) | FBC HVHZ Compliance | 10-0817.10 | 10/27/2010 |
| Miami-Dade (CER1592) | FBC HVHZ Compliance | 10-0817.08 | 10/27/2010 |
| Miami-Dade (CER1592) | FBC HVHZ Compliance | 10-0817.07 | 10/27/2010 |
| Miami-Dade (CER1592) | FBC HVHZ Compliance | 11-0411.03 | 06/16/2011 |
| Miami-Dade (CER1592) | FBC HVHZ Compliance | 11-0919.05 | 10/13/2011 |
| UL LLC (QUA9625) | Quality Control | Service Confirmation R2453 | Exp. 09/26/2014 |

4. PRODUCT DESCRIPTION:**4.1 Asphalt Shingles:**

4.1.1 Classic® and Supreme® are fiberglass reinforced, 3-tab asphalt roof shingles.

4.1.2 Berkshire® are fiberglass reinforced, 4-tab asphalt roof shingles.

4.1.3 Duration®, TruDefinition® Duration®, Duration® Premium Cool, TruDefinition® Duration® Designer Color Collection, TruDefinition® Oakridge®, Oakridge® and WeatherGuard® HP are fiberglass reinforced, laminated asphalt roof shingles.

4.2 Berkshire® Hip & Ridge Shingles, High Ridge, Hip & Ridge with Sealant and WeatherGuard® HP Hip & Ridge Shingles are fiberglass reinforced, hip and ridge asphalt roof shingles.

4.3 Starter Strip Plus and Starter Shingle Roll are starter strips for asphalt roof shingles.

5. LIMITATIONS:

5.1 This Evaluation Report is not for use in the HVHZ.

5.2 Fire Classification is not part of this Evaluation Report; refer to current Approved Roofing Materials Directory for fire ratings of this product.

5.3 Wind Classification:

- 5.3.1 All Owens Corning shingles noted herein are Classified in accordance with FBC Tables 1507.2.7.1 and R905.2.6.1 to ASTM D3161, Class F and/or ASTM D7158, Class H, indicating the shingles are acceptable for us in all wind zones up to $V_{asd} = 150$ mph ($V_{ult} = 194$ mph). Refer to Section 6 for installation requirements to meet this wind rating.
- 5.3.2 All Owens Corning hip & ridge shingles and Starter Strip Plus noted herein are Classified in accordance with FBC Tables 1507.2.7.1 and R905.2.6.1 to ASTM D3161, Class F, indicating the shingles are acceptable for us in all wind zones up to $V_{asd} = 150$ mph ($V_{ult} = 194$ mph). Refer to Section 6 for installation requirements to meet this wind rating.
- 5.3.3 Classification by ASTM D7158 applies to exposure category B or C and a building height of 60 feet or less. Calculations by a qualified design professional are required for conditions outside these limitations. Contact the shingle manufacturer for data specific to each shingle.
- 5.3.4 Refer to Owens Corning published information on wind resistance and installation limitations.
- 5.4 All products in the roof assembly shall have quality assurance audit in accordance with the Florida Building Code and F.A.C. Rule 9N-3.

6. INSTALLATION:

6.1 Underlayment:

- 6.1.1 Underlayment shall be acceptable to Owens Corning and shall hold current Florida Statewide Product Approval, or be Locally Approved per Rule 9N-3, per FBC Sections 1507.2.3, 1507.2.4 or R905.2.3.

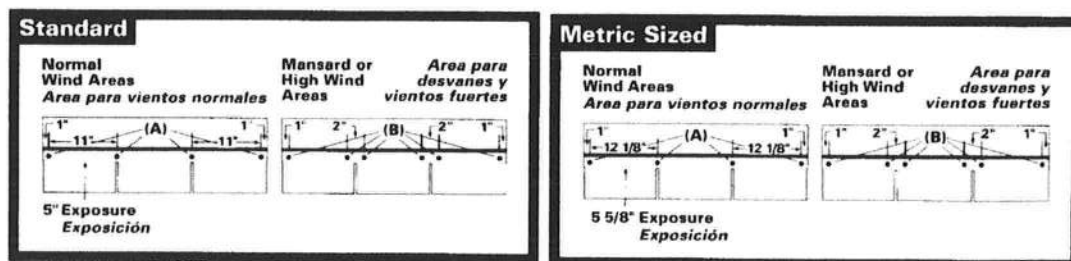
6.2 Asphalt Shingles:

- 6.2.1 Installation of asphalt shingles shall comply with the manufacturer's current published instructions, using minimum four (4) nails per shingle in accordance with FBC Sections 1507.2 or R905.2, with the following exceptions:

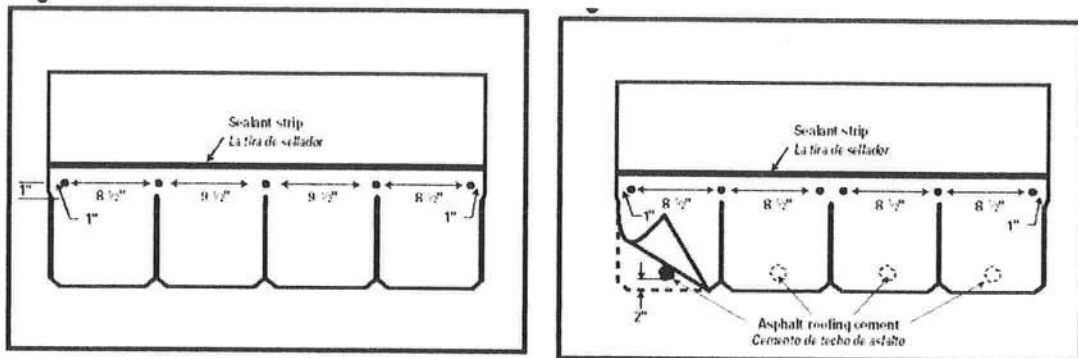
- Berkshire® shingles require minimum five (5) nails per shingle.
- WeatherGuard® HP shingles require minimum six (6) nails per shingle.
- Starter Strip Plus requires minimum five (5) nails per strip.

Refer to Owens Corning published information on wind resistance and installation limitations.

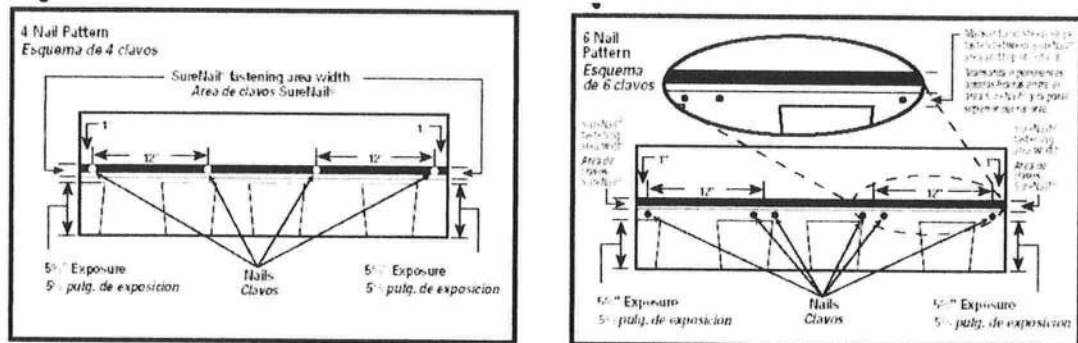
- 6.2.2 Fasteners shall be in accordance with the manufacturer's published requirements, but not less than FBC 1507.2.6 or R905.2.5. Staples are not permitted.
- 6.2.4 Where the roof slope exceeds 21 units vertical in 12 units horizontal, special methods of fastening are required. Contact the shingle manufacturer for details.
- 6.2.5 Minimum Nailing – Classic® & Supreme:



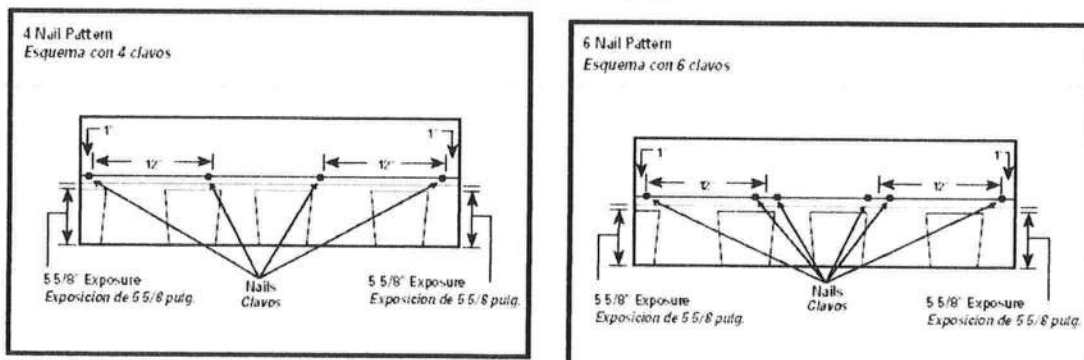
6.2.6 Minimum Nailing – Berkshire®:



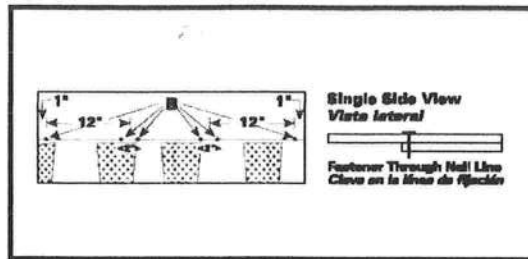
6.2.7 Minimum Nailing – Duration®, TruDefinition® Duration, Duration® Premium Cool & TruDefinition® Duration® Designer Color Collection:



6.2.8 Minimum Nailing – TruDefinition® Oakridge®, Oakridge®:

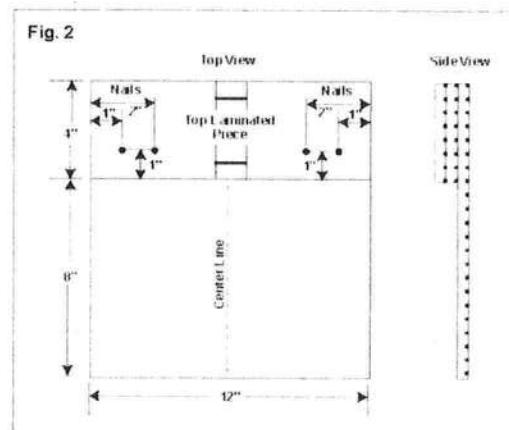
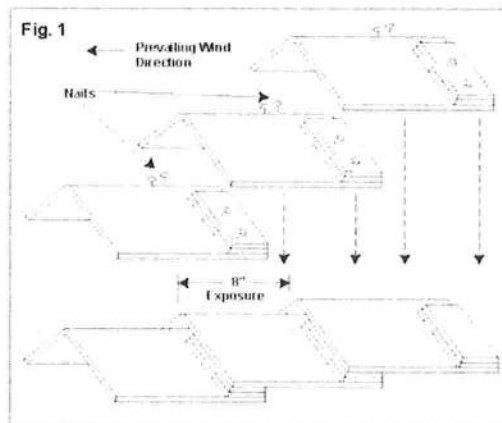


6.2.9 Minimum Nailing – WeatherGuard® HP:

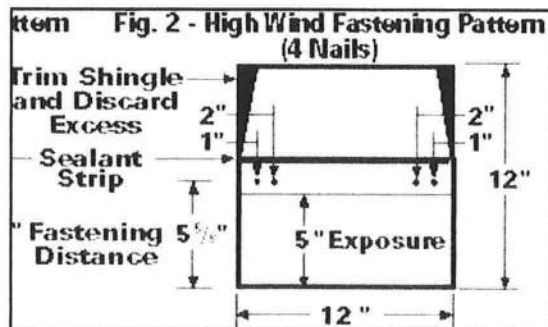


6.3 Hip & Ridge Shingles:

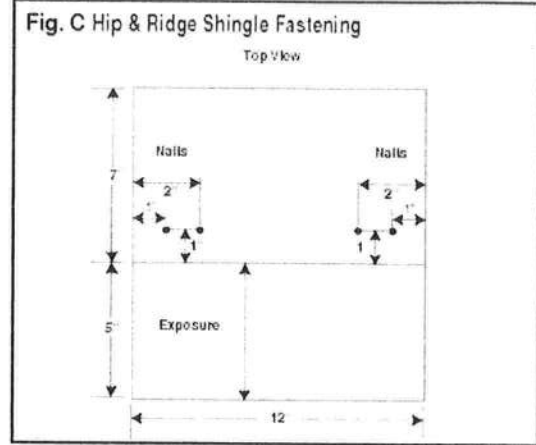
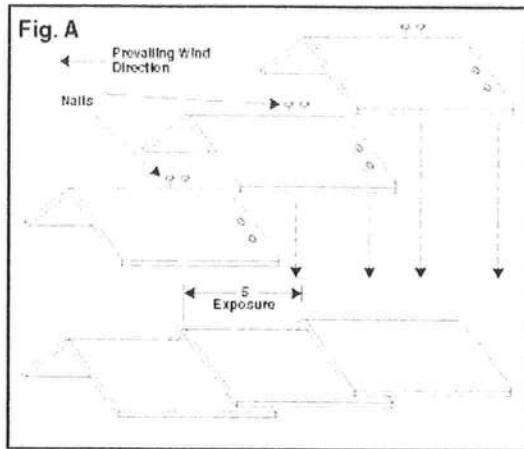
- 6.3.1 Installation of Berkshire® Hip and Ridge Shingles, High Ridge, Hip & Ridge with Sealant and WeatherGuard® HP Hip and Ridge Shingles shall comply with the manufacturer's current published instructions, using four (4) nails per shingle. Refer to Owens Corning published information on wind resistance and installation limitations, including the use of hand-sealing for wind warranties.
- 6.3.2 Fasteners shall be in accordance with the manufacturer's published requirements, but not less than FBC 1507.2.6 or R905.2.5. Staples are not permitted.
- 6.3.3 Minimum Nailing – Berkshire® Hip & Ridge and High Ridge:



6.3.4 Minimum Nailing – Hip & Ridge with Sealant:



6.3.5 Minimum Nailing – WeatherGuard® HP Hip and Ridge:



7. LABELING:

- 7.1 Each unit shall bear a permanent label with the manufacturer's name, logo, city, state and logo of the Accredited Quality Assurance Agency noted herein.
- 7.2 Asphalt shingle wrappers shall indicate compliance with one of the required classifications detailed in FBC Table 1507.2.7.1 / R905.2.6.1.

8. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction in order to properly evaluate the installation of this product.

9. MANUFACTURING PLANTS:

Contact the named QA entity for information on which plants produce products covered by Florida Rule 9N-3 QA requirements.

10. QUALITY ASSURANCE ENTITY:

UL LLC- QUA9625 ; (414) 248-6409;

- END OF EVALUATION REPORT -