



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

PROJECT ARCHITECT RESPONSIBILITY: This is a general specification guide, intended to be used by experienced construction professionals, in conjunction with good construction practice and professional judgment. This guide is to aid in the creation of a complete building specification that is to be fully reviewed and edited by the architect of record (specifier). Sections of this guide should be included, edited, or omitted based on the requirements of a specific project. It is the responsibility of both the specifier and the purchaser to determine if a product or system is suitable for its intended use within their projects respective zip code. Neither Owens Corning, nor any of its subsidiary or affiliated companies, assume any responsibility for the content of this specification guide relative to actual projects and specifically disclaim any and all liability for any errors or omissions in design, detail, structural capability, attachment details, shop drawings or other construction related details, whether based upon the information provided by Owens Corning or otherwise.

SECTION 07 31 13.13 - FIBERGLASS-BASED ASPHALT SHINGLES & ACCESSORIES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Roof shingles and accessories including the following:
 - 1. Fiberglass-based asphalt shingles.
 - 2. Hip and ridge shingles.
 - 3. Starter shingles.
 - 4. Self-adhering ice and water barrier.
 - 5. Shingle underlayment.
 - 6. Attic ventilation.
 - 7. Fasteners.
 - 8. Metal flashing and trim.

1.2 RELATED SECTIONS

****NOTE TO SPECIFIER** Delete and/or add other sections as required.**

- A. Section 061000 - Rough Carpentry.
- B. Section 071300 – Sheet Waterproofing.
- C. Section 072200 - Roof and Deck Insulation; for insulation placed over roof decking.
- D. Section 076000 - Flashing and Sheet Metal; for snow guards, metal flashing and drip edges, including step-type flashing installed with shingles.
- E. Section 077100 – Roof Specialties: Manufactured Gutters and Downspouts.
- F. Section 077200 - Roof Accessories.
- G. Section 086000 – Roof Windows and Skylights.

****NOTE TO SPECIFIER** Delete references from the list below that are not required.**

1.3 REFERENCES

- A. American Society of Civil Engineers (ACSE):
 - 1. ASCE 7 – Minimum Design Loads for Buildings and Other Structures.
- B. Asphalt Roofing Manufacturers Association (ARMA).



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- C. ASTM International (ASTM):
 - 1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - 2. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
 - 3. ASTM B370 – Standard Specification for Copper Sheet and Strip for Building Construction.
 - 4. ASTM D226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
 - 5. ASTM D228 - Standard Test Method for Sampling, Testing, and Analysis of Asphalt Roll Roofing, Cap Sheets, and Shingles Used in Roofing and Waterproofing.
 - 6. ASTM D1079 – Standard Terminology Relating to Roofing and Waterproofing.
 - 7. ASTM D1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
 - 8. ASTM D3018 - Standard Specification for Class A Asphalt Shingles Surfaced with Mineral Granules.
 - 9. ASTM D3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).
 - 10. ASTM D3462 - Standard Specification for Asphalt Shingles Made from Glass felt and Surfaced with Mineral Granules
 - 11. ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
 - 12. ASTM D4869 - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing.
 - 13. ASTM D6381 - Standard Test Method for Measurement of Asphalt Shingle Mechanical Uplift Resistance.
 - 14. ASTM D6757 - Standard Specification for Underlayment Felt Containing Inorganic Fibers Used in Steep-Slope Roofing.
 - 15. ASTM D7158 - Standard Test Method for Wind Resistance of Sealed Asphalt Shingles (Uplift Force/Uplift Resistance Method).
 - 16. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.
 - 17. ASTM F1667 - Standard Specification for Driven Fasteners: Nails, Spikes, and Staples.
 - 18. ASTM D6163 – Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Glass Fiber Reinforcements
 - 19. ASTM D6164 – Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Polyester Reinforcements
- D. Cool Roof Rating Council (CRRC): Product Rating Program.
- E. Canadian Standards Association (CSA): CSA A123.5 - Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules. Note: Applicable only to products sold for use in Canada.
- F. California Building Standards Commission (CBSC):
 - 1. California Building Code, California Code of Regulations Title 24.
- G. FM Approvals
 - 1. FM 4474 - American National Standard for Evaluating the Simulated Wind Uplift Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures.
- H. Florida Building Commission (FBC):
 - 1. Florida Building Code.
 - 2. Florida Product Approvals.
- I. Environmental Protection Agency (EPA): ENERGY STAR Rating System.
- J. International Code Council (ICC):
 - 1. International Residential Code (IRC).



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- 2. International Building Code (IBC).
- K. International Code Council Evaluation Service (ICC-ES)
 - 1. ICC-ES Evaluation Reports.
 - 2. ICC-ES Acceptance Criteria.
- L. Intertek
 - 1. Intertek Code Compliance Research Report (CCRR)
- M. Miami-Dade County Department of Regulatory and Economic Resources (RER), Product Control Section:
 - 1. Miami-Dade County Notice of Acceptance (NOA).
- N. National Roofing Contractors Association (NRCA).
- O. Sheet Metal and Air Conditioning Contractors National Association, 1nc. (SMACNA) – Architectural Sheet Metal Manual.
- P. Texas Department of Insurance (TDI): Product Listing.
- Q. Underwriters Laboratories (UL):
 - 1. UL 790 - Standard Test Methods for Fire Test of Roof Coverings.
 - 2. UL 997 – Wind Resistance of Prepared Roof Covering Materials.
 - 3. UL 2218 - Impact Resistance of Prepared Roof Covering Materials.
 - 4. UL 2390 - Test Method for Wind Resistant Asphalt Shingles with Sealed Tabs.
 - 5. UL 1897 – Uplift Tests for Roof Covering Systems
- R. Underwriters Laboratories Evaluation Services (UL-ES):
 - 1. UL-ER Evaluation Reports.
- S. US Green Building Council (USGBC): Leadership in Energy and Environmental Design (LEED).

1.4 REGULATORY REQUIREMENTS AND CERTIFICATIONS

- A. Provide a roofing system having an Underwriters Laboratories (UL) Class A fire resistance classification.
- B. When applicable provide a roofing system that will help to qualify points for LEED certification:
 - 1. Sustainable Site credit – Heat Island Reduction.
 - 2. Materials and Resource credit – Building Product Disclosure and Optimization - Environmental Product Declaration (manufacturer specific Environmental Product Declarations).
 - 3. Materials and Resource credit – Building Product Disclosure and Optimization – Sourcing of Raw Materials.
 - 4. Materials and Resources credit – Construction and Demolition Waste Management.
- C. When applicable provide a roofing system achieving ENERGY STAR certification.
- D. Install all roofing products in accordance with all federal, state and local building codes.
- E. All work shall be performed in a manner consistent with current OSHA guidelines.

****NOTE TO SPECIFIER** Delete as required.**

1.5 PRODUCT ATTRIBUTES



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- A. When applicable, provide fiberglass-based asphalt shingle with SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.

1.6 SUBMITTALS

- A. Submit under provisions of Section 013300 - Submittal Procedures.
- B. Submit printed copies of Owens Corning product data sheets indicating product characteristics, product information, installation instructions (including required preparation and installation procedures) and product limitations and color samples.
- C. Certificate of Compliance: Provide Certificate of Compliance from independent laboratory indicating that Owens Corning asphalt shingles made in normal production meet or exceed the requirements of the following:
1. ASTM D3462.
 2. ASTM D3161/D7158 – Indicating a Class of Wind Resistance.
 3. ASTM E108/UL790 – Indicating Class A Fire Resistance.
- D. LEED submittal: When appropriate provide a LEED submittal and coordinate with provisions in Section 013563 – Sustainability Certification Project Requirements and Section 013566 – Sustainability Certification Project Procedures.
- E. Shop Drawings: Indicate specially configured metal flashing, jointing methods and locations, fastening methods and locations, and installation details as required by project conditions.
- F. Copy of Warranty: For warranty specified in Section 1.9.

****NOTE TO SPECIFIER** Delete selection samples if colors have already been selected.**

- G. Selection Samples: Two complete sets of samples, representing manufacturer's full range of available products and colors.
- H. Verification Samples: For each product and finish specified, two samples representing actual products and colors.

1.7 PRE-INSTALLATION MEETING

- A. For all projects, a pre-installation meeting is strongly recommended. Conduct a pre-installation meeting at the site prior to commencing work in this section. Require attendance of entities directly concerned with roof installation.

Topics to be discussed:

1. Safety procedures.
 2. Installation procedures/method (including substrate preparation), sequencing of materials, and coordination with installation of other/adjacent work.
 3. Roofing material availability, storage and handling.
 4. Additional roof covering and roof accessory materials.
 5. Through roof penetrations and other roof details.
 6. Product compliance – Verify that products comply with requirements specified by local Authority Having Jurisdiction (AHJ)
 7. All other items related to successful execution/completion of work.
- B. Submit printed copies of Owens Corning product data sheets indicating product characteristics, product information, installation instructions (including required preparation and installation procedures), product limitations and color samples.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Provide all primary roofing products, including shingles, underlayment, ice and water barrier, and ventilation, by a single manufacturer.
- B. Installer Qualifications: Installer shall be licensed or otherwise authorized by all federal, state and local authorities to install all products specified in this section. Installer shall follow Owens Corning published installation instructions.

****NOTE TO SPECIFIER** Delete one of two options below. Select option based on desired warranty.**

- 1. Installer shall be an Owens Corning Roofing Platinum Preferred Contractor as defined and certified by Owens Corning.
- 2. Installer shall be an Owens Corning Roofing Preferred Contractor as defined and certified by manufacturer.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's unopened bundles with labels intact and legible.
- B. Store all products in manufacturer's unopened, labeled packaging until they are ready for installation.
- C. Store all products in accordance with Owens Corning recommendations.
- D. Do not install underlayment or shingles on wet surfaces.
- E. Store and dispose of solvent-based materials in accordance with all federal, state and local regulations.
- F. For rooftop loading, lay shingle bundles flat. Do not bend over the ridge.

1.10 PROJECT CONDITIONS

- A. Do not install systems under environmental conditions outside Owens Corning recommended limits. Proceed with work only when existing and forecasted weather conditions will permit work to be performed within Owens Corning recommended limits.

1.11 WARRANTY

- A. Standard Limited Warranty: Provide to the Owner Corning standard prorated warranty coverage for materials in the event of a material defect, including up to 10 years Tru Protection® coverage. Refer to actual warranty for complete details, limitations and requirements.
- B. Manufacturer's Extended Limited Warranty: Provide to the Owner Owens Corning standard extended warranty coverage labor and materials in the event of a material defect. Refer to actual warranty for complete details, limitations and requirements.

****NOTE TO SPECIFIER** Delete one of two options below. Select option based on desired warranty.**

- 1. Owens Corning System Protection Roofing Limited Warranty including extended Tru Protection® (non-prorated) coverage on installed Owens Corning Roofing System products. The length of the Tru Protection® coverage is based upon the shingle product installed on the field of the roof. Coverage can only be provided by a designated Owens Corning Roofing Preferred or Platinum Preferred Contractor.
- 2. Owens Corning Preferred Protection Roofing System Limited Warranty includes Tru Protection® (non-prorated) coverage on installed Owens Corning Roofing System products. The length of the Tru Protection® coverage is based upon the shingle product installed on the field of the roof. This warranty will also cover workmanship defects by the installer. Coverage can only be provided by a designated Owens Corning Roofing Preferred or Platinum Preferred Contractor.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

3. Owens Corning Platinum Protection Roofing System Limited Warranty includes Tru Protection® (non-prorated) coverage on installed Owens Corning Roofing System products. The length of the Tru Protection® coverage is based upon the shingle product installed on the field of the roof. This warranty will also cover workmanship defects by the installer. Coverage can only be provided by a designated Owens Corning Roofing Platinum Preferred Contractor.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Owens Corning Roofing and Asphalt, LLC. One Owens Corning Pkwy. Toledo, OH 43659. Toll Free: 1-800-ROOFING. Email: ocbuildingspec@owenscorning.com. Web: www.owenscorning.com.
- B. Requests for substitutions will be considered in accordance with provisions of Section 016000.

2.2 ASPHALT SHINGLES

****NOTE TO SPECIFIER** Delete roof shingle products from the list below that are not required.**

****NOTE TO SPECIFIER** Verify with the manufacturer regional product availability.**

- A. Duration® Premium (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
 1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 4 bundles of 16 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- B. Duration® Premium (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
 1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 4 bundles of 16 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- C. Duration® Premium Cool (Non-Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
 1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

4. Shingles per Square: 64.
 5. Bundles per Square: 4 bundles of 16 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), meets the ENERGY STAR® requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15, 2010 California Building Energy Efficiency Standards, Title 24, Part 6 requirements, Listed by the Cool Roof Rating Council (CRRC), ICC-ES AC438, UL ER2453-01, and UL ER2453-02, and Florida Product Approval.
- D. TruDefinition® Duration® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 3 bundles of 20 or 22 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, and UL ER2453-02. Florida Product Approval, and Miami-Dade County Product Approval.
- E. TruDefinition® Duration® (Non-Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 3 bundles of 20 or 22 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02, Florida Product Approval, and Miami-Dade County Product Approval.
- F. TruDefinition® Duration® Cool (Non-Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 3 bundles of 20 or 22 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), Listed by the Cool Roof Rating Council (CRRC), ICC-ES AC438, UL ER2453-01, and UL ER2453-02, Florida Product Approval, and Miami-Dade County Product Approval.
- G. TruDefinition® Duration® Designer Color Collection (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 3 bundles of 20 or 22 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL790 (Class A Fire Resistance), CSA A123.5, Florida Product Approval, Miami-Dade County Product Approval, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- H. TruDefinition® Duration® Designer Color Collection (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 3 bundles of 20 or 22 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL790 (Class A Fire Resistance), Florida Product Approval, Miami-Dade County Product Approval, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- I. TruDefinition® Duration MAX® (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 4 bundles of 16 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- J. TruDefinition® Duration STORM® Impact Resistant (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface; and UL 2218 Class 4 impact resistance.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 3 bundles of 20 or 22 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- K. TruDefinition® Duration FLEX® Impact Resistant (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **Product Attributes: Includes SureNail® Technology, a woven fabric reinforcing strip in the nailing zone on the shingle's top surface; and UL 2218 Class 4 impact resistance.**
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 3. Exposure: 5-5/8 in (143 mm).
 4. Shingles per Square: 64.
 5. Bundles per Square: 3 bundles of 20 or 22 shingles.
 6. Coverage per Square: 98.4 sq ft (9.1 sq m).
 7. Color: As selected from manufacturer's full range.
 8. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), and UL ER2453-01.
- L. TruDefinition® Oakridge® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 2. Exposure: 5-5/8 in (143 mm).
 3. Shingles per Square: 64.
 4. Bundles per Square: 3.
 5. Coverage per Square: 98.4 sq ft (9.1 sq m).
 6. Color: As selected from manufacturer.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), , ICC-ES AC438, UL ER2453-01, UL ER2453-02, Florida Product Approval, Miami-Dade County Product Approval
- M. TruDefinition® WeatherGuard® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 2. Exposure: 5-5/8 in (143 mm).
 3. Shingles per Square: 64.
 4. Bundles per Square: 4.
 5. Coverage per Square: 98.4 sq ft (9.1 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- N. Oakridge® (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 2. Exposure: 5-5/8 in (143 mm).
 3. Shingles per Square: 64.
 4. Bundles per Square: 3 bundles of 20 or 22 shingles.
 5. Coverage per Square: 98.4 sq ft (9.1 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), Florida Product Approval, Miami-Dade County Product Approval, CSA A123.5, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.. Shasta White Color meets ENERGY STAR requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15.
- O. Oakridge® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 2. Exposure: 5-5/8 in (143 mm).
 3. Shingles per Square: 64.
 4. Bundles per Square: 3 bundles of 20 or 22 shingles.
 5. Coverage per Square: 98.4 sq ft (9.1 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, UL ER2453-02, Florida Product Approval, and Miami-Dade County Product Approval. Shasta White Color meets ENERGY STAR requirements for initial solar reflectance of 0.25 and 3-year aged solar reflectance of 0.15.
- P. Berkshire® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 18-3/4 in (476 mm) by 38 in (965 mm).
 2. Exposure: 8-3/8 in. (213 mm).
 3. Shingles per Square: 45.
 4. Bundles per Square: 5 bundles of 9 shingles.
 5. Coverage per Square: 99.5 sq ft (9.2 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02, Florida Product Approval, and Miami-Dade County Product Approval.
- Q. Woodmoor® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 14-1/4 in (362 mm) by 40 in (1016 mm).
 2. Exposure: 4 in (102 mm).
 3. Shingles per Square: 90.
 4. Bundles per Square: 6 bundles of 15 shingles.
 5. Coverage per Square: 100.0 sq ft (9.3 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- R. Woodcrest® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 14-1/4 in (362 mm) by 40 in (1016 mm).



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

2. Exposure: 4 in (102 mm).
 3. Shingles per Square: 90.
 4. Bundles per Square: 6 bundles of 15 shingles.
 5. Coverage per Square: 100.0 sq ft (9.3 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- S. Supreme® (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 12 in (305 mm) by 36 in (914 mm).
 2. Exposure: 5 in (127 mm).
 3. Shingles per Square: 80.
 4. Bundles per Square: 3 bundles of 26, 27, 27 shingles.
 5. Coverage per Square: 100.0 sq ft (9.3 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02. Florida Product Approval, and Miami-Dade County Product Approval.
- T. Supreme® (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 12 in (305 mm) by 36 in (914 mm).
 2. Exposure: 5 in (127 mm).
 3. Shingles per Square: 80.
 4. Bundles per Square: 3 bundles of 26, 27, 27 shingles.
 5. Coverage per Square: 100.0 sq ft (9.3 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02, and Florida Product Approval.
- U. Supreme® (Algae Resistant) (Metric) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 2. Exposure: 5-5/8 in (143 mm).
 3. Shingles per Square: 65.
 4. Bundles per Square: 3 bundles of 21, 22, 22 shingles.
 5. Coverage per Square: 100.0 sq ft (9.3 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- V. Supreme® (Non Algae Resistant) (Metric) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm).
 2. Exposure: 5-5/8 in (143 mm).
 3. Shingles per Square: 65.
 4. Bundles per Square: 3 bundles of 21, 22, 22 shingles.
 5. Coverage per Square: 100.0 sq ft (9.3 sq m).
 6. Color: As selected from manufacturer's full range.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- W. Classic® (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 12 in (305 mm) by 36 in (914 mm).
 2. Exposure: 5 in (127 mm).
 3. Shingles per Square: 80.
 4. Bundles per Square: 3 bundles of 26, 27, 27 shingles.
 5. Coverage per Square: 100.0 sq ft (9.3 sq m).
 6. Color: As selected from manufacturer's full range.
 7. Standards/Qualifications: ASTM D228, ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM D7158 (Class H Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02, and Florida Product Approval.
- X. Mineral Surface Roll (Non Algae Resistant): As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nominal Size: 36 in (914 mm) by 36 in (914 mm).
 2. Exposure: 34 in (864 mm).
 3. Rolls per Square: 1.
 4. Coverage per Square: 100.0 sq ft (9.3 sq m).
 5. Standards/Qualifications: ASTM E108/UL 790 (Class C Fire Resistance), and Florida Product Approval.

2.3 HIP AND RIDGE SHINGLES

Provide hip and ridge shingles color formulated to complement field of roof.

****NOTE TO SPECIFIER** Delete hip and ridge shingle products from the list below that are not required.**

****NOTE TO SPECIFIER** Verify with the manufacturer regional product availability.**

- A. DuraRidge® Hip and Ridge (Algae Resistant) Shingles with Sealant: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **High profile design features patented SureNail® Technology providing long-lasting durability and dimension**
 2. Nominal Size: 12 in (305 mm) by 10 5/8 in (270 mm) with 8 in (203 mm) exposure
 3. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02, Florida Product Approval, Miami-Dade County Product Approval, and CSA A123.5.
- B. RIZERidge® Hip and Ridge (Algae Resistant) Shingles with Sealant: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Foldable design provides multi-layered dimension along hips and ridges.
 2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
 3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
 4. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02, and Florida Product Approval.
- C. DecoRidge® Hip and Ridge (Non Algae Resistant) Shingles with Sealant
1. Durable, heavyweight laminate construction with SBS-modified asphalt provides maximum dimension and style to the hip and ridge.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

2. Nominal Size: 11-1/2 in (292 mm) by 8 in (203 mm) and 11-1/2 in (292 mm) by 10 in (254 mm) with 8 in (203 mm) exposure.
 3. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), and CSA A123.5.
- D. ProEdge® Hip and Ridge (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Perforated shingles with factory installed cutouts designed for fast and easy installation.
 2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
 3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
 4. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, UL ER2453-02, Florida Product Approval, and Miami-Dade County Product Approval.
- E. ProEdge® Hip and Ridge (Non Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Perforated shingles with factory installed cutouts designed for fast and easy installation.
 2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
 3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
 4. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02, and Florida Product Approval.
- F. ProEdge® Hip and Ridge (Algae Resistant) (Metric) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Perforated shingles with factory installed cutouts designed for fast and easy installation.
 2. Nominal Size: 13-1/4 in (337 mm) by 39-3/8 in (1000 mm) with 6-5/8 in (168 mm) exposure.
 3. Piece Size: 9-27/32 in (250 mm) by 13-1/4 in (337 mm).
 4. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- G. ProEdge STORM® Hip and Ridge Impact Resistant (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Perforated design for easy installation offering Class 4 impact resistance.
 2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
 3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
 4. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01, and UL ER2453-02.
- H. ProEdge FLEX® Hip and Ridge Impact Resistant (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Perforated design for easy installation offering Class 4 impact resistance.
 2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
 3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
 4. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), and UL ER2453-01.
- I. Berkshire® Hip and Ridge (Algae Resistant) Shingles with Sealant: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. **High profile design features patented SureNail® Technology providing long-lasting durability and dimension**



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

2. Nominal Size: 12 in (305 mm) by 10 5/8 in (270 mm) with 8 in (203 mm) exposure
 3. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, UL ER2453-02, Florida Product Approval, Miami-Dade County Product Approval, and CSA A123.5.
- J. WeatherGuard® HP Hip and Ridge Impact Resistant (Algae Resistant) Shingles: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Perforated design for easy installation offering Class 4 impact resistance.
 2. Nominal Size: 12 in (305 mm) by 36 in (914 mm) with 6 in (152 mm) exposure.
 3. Piece Size: 12 in (305 mm) by 12 in (305 mm).
 4. Standards/Qualifications: ASTM D3018 (Type 1), ASTM D3161 (Class F Wind Resistance), ASTM D3462, ASTM E108/UL 790 (Class A Fire Resistance), UL 2218 (Class 4 Impact Resistance), UL ER2453-01, UL ER2453-02, and Florida Product Approval.

2.4 STARTER SHINGLES

****NOTE TO SPECIFIER** Delete starter shingle products from the list below that are not required.**

****NOTE TO SPECIFIER** Verify with the manufacturer regional product availability.**

- A. Starter Shingle Roll: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Self-adhering, starter course. Each strip measures 7-1/5 in (191 mm) tall by 33-2/5 ft (10.1 m) wide.
 2. Standards/Qualifications: Florida Product Approval.
- B. Starter Strip Shingle: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nail applied starter course. Individual starter shingle is 6-5/8 in (168 mm) by 39-3/8 in (1000 mm).
 2. Standards/Qualifications: ASTM D3462, ASTM D3161 (Class F Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), CSA A123.5, ICC-ES AC438, UL ER2453-01
- C. Starter Strip PLUS: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nail applied starter course. Individual starter shingle is 7-3/4 in (197 mm) by 39-3/8 in (1000 mm).
 2. Standards/Qualifications: ASTM D3462, ASTM D3161 (Class F Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, UL ER2453-01, Florida Product Approval, and Miami-Dade County Product Approval.
- D. WoodStart® Starter Shingle: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Nail applied starter course. Nominal Size is 13-3/8 in (340 mm) by 40 in (1016 mm).
 2. Standards/Qualifications: ASTM D3462, ASTM D3161 (Class F Wind Resistance), ASTM E108/UL 790 (Class A Fire Resistance), ICC-ES AC438, and UL ER2453-01.

2.5 SELF-ADHERING UNDERLAYMENTS

****NOTE TO SPECIFIER** Delete self-adhering ice and water barrier products from the list below that are not required.**

****NOTE TO SPECIFIER** Verify with the manufacturer regional product availability.**

- A. WeatherLock® Mat: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Mat-faced skid resistant surface, self-adhering, self sealing, bituminous ice and water barrier.
 2. Roll Width: 36 in (914 mm).
 3. Selvage: 3 in (76 mm).
 4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance¹), UL ER19380-01, Florida Product Approval, and Miami-Dade County Product Approval.
- B. WeatherLock® G: As manufactured by Owens Corning Roofing and Asphalt, LLC.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

1. Granule skid resistant surface, self-adhering, self sealing, bituminous ice and water barrier.
 2. Roll Width: 36 in (914 mm).
 3. Selvage: 3 in (76 mm).
 4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance¹), UL ER19380-01, Florida Product Approval, and Miami-Dade County Approval.
- C. WeatherLock® Cold Climate: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Granule skid resistant surface, self-adhering, self sealing, bituminous ice and water barrier. Designed for low temperature adhesion.
 2. Roll Width: 36 in (914 mm).
 3. Selvage: 3 in (76 mm).
 4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance¹),
- D. WeatherLock® Flex: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Cross laminated poly surface with skid resistant traction surface, self-adhering, self sealing, bituminous ice and water barrier.
 2. Roll Width: 36 in (914 mm).
 3. Selvage: 3 in (76 mm).
 4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance¹), UL ER19380-01.
- E. WeatherLock® Specialty Tile and Metal: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Polyester surface with skid resistant traction surface, self-adhering, self sealing, bituminous ice and water barrier.
 2. Thermally stable in high temperatures up to 260 degrees Fahrenheit (126 degrees Celsius).
 3. Designed for use with mechanically fastened tile systems.
 4. Roll Width: 36 in (914 mm).
 5. Selvage: 3 in (76 mm).
 6. Standards/Qualification: ASTM D1970, ASTM E108/UL 790 (Class A/Class C Fire Resistance²), UL 1897, UL ER19380-01, Florida Product Approval, and Miami-Dade County Product Approval.
- F. RhinoRoof® GRN: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Granule skid resistant surface, self-adhering, self sealing, bituminous ice and water barrier.
 2. Roll Width: 36 in (914 mm).
 3. Selvage: 3 in (76 mm).
 4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance¹), and Florida Product Approval.
- G. RhinoRoof® MTL: As manufactured by Owens Corning Roofing and Asphalt, LLC.
1. Cavitated film surface, self-adhering, self sealing, bituminous ice and water barrier.
 2. Roll Width: 36 in (914 mm).
 3. Selvage: 3 in (76 mm).
 4. Standards/Qualifications: ASTM D1970, ASTM E108/UL 790 (Class A Fire Resistance¹), and Florida Product Approval.

¹ Class A fire resistance limited to use under asphalt shingles and quarry slate.

² Class A fire resistance limited to use under asphalt shingles, clay and concrete tile, and quarry slate. Class C fire resistance under metal panels and shingles.

2.6 MECHANICALLY FASTENED UNDERLAYMENTS

****NOTE TO SPECIFIER** Delete shingle underlayment products from the list below that are not required.**

****NOTE TO SPECIFIER** Verify with the manufacturer regional product availability.**



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- A. **Fiberglas™ Reinforced Felt Underlayment.**
1. Wrinkle resistant, water resistant, breather type cellulose/glass fiber composite roofing underlayment.
 2. Roll Width: 36 in (91.4 cm).
 3. Roll Length: 141.5 ft (43.1 m).
 4. Coverage Per Roll: 4 roof squares.
 5. Standards/Qualifications: ASTM D226 (Type II), ASTM D4869 (Type IV), ASTM D6757, ASTM E108/UL 790 (Class A Fire Resistance¹), and Florida Product Approval.
- B. **ProArmor® Synthetic Roof Underlayment.**
1. Weather-shedding synthetic polyolefin barrier.
 2. Roll Width: 42 in (106.7 cm).
 3. Roll Length: 286 ft (87.2 m).
 4. Coverage Per Roll: 9.29 roof squares.
 5. Standards/Qualification: ASTM D226, ASTM D4869, , ASTM E108/UL 790 (Class A Fire Resistance¹), ICC-ES AC188, CCRR-1068, Florida Product Approval, and Miami-Dade County Product Approval.
- C. **Deck Defense® High Performance Roof Underlayment.**
1. Weather-shedding synthetic polyolefin barrier.
 2. Roll Width: 48 in (122 cm).
 3. Roll Length: 125 ft (38.1 m) and 250 ft (76.2 m).
 4. Coverage Per Roll: 5 and 10 roof squares.
 5. Standards/Qualification: ASTM D226, , ASTM E108/UL 790 (Class A Fire Resistance¹), Florida Product Approval, and Miami-Dade County Product Approval.
- D. **RhinoRoof® U20 Roof Underlayment.**
1. Weather-shedding synthetic polypropylene barrier.
 2. Roll Width: 42 in (110 cm).
 3. Roll Length: 286 ft (87m)
 4. Coverage Per Roll: 10 roof squares.
 5. Standards/Qualification: ASTM D226, , ASTM E108/UL 790 (Class A Fire Resistance¹), ICC-ES AC188, CCRR-1015, Florida Product Approval, and Miami-Dade County Product Approval.
- E. **Titaniumf® UDL25 Roof Underlayment.**
1. Weather-shedding synthetic polypropylene barrier.
 2. Roll Width: 48 in (122 cm).
 3. Roll Length: 250 ft (76.2m)
 4. Coverage Per Roll: 10 roof squares.
 5. Standards/Qualification: ASTM D226, , ASTM E108/UL 790 (Class A Fire Resistance¹), ICC-ES AC188, CCRR-1024, Florida Product Approval, and Miami-Dade County Product Approval.
- F. **Titaniumf® UDL30 Roof Underlayment.**
1. Weather-shedding synthetic polypropylene barrier.
 2. Roll Width: 48 in (122 cm).
 3. Roll Length: 250 ft (76.2m)
 4. Coverage Per Roll: 10 roof squares.
 5. Standards/Qualification: ASTM D226, , ASTM E108/UL 790 (Class A Fire Resistance¹), ICC-ES AC188, CCRR-1024, Florida Product Approval, and Miami-Dade County Product Approval.
- G. **Titaniumf® UDL50 Roof Underlayment.**
1. Weather-shedding synthetic polypropylene barrier.
 2. Roll Width: 48 in (122 cm).
 3. Roll Length: 250 ft (76.2m)
 4. Coverage Per Roll: 10 roof squares.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- Standards/Qualification: ASTM D226, , ASTM E108/UL 790 (Class A Fire Resistance¹), ICC-ES AC188, CCRR-1024, Florida Product Approval, and Miami-Dade County Product Approval.

¹ Class A fire resistance limited to use under asphalt shingles.

2.7 LOW SLOPE MODIFIED BITUMEN ROOFING SYSTEMS

****NOTE TO SPECIFIER** Delete products from the list below that are not required.**

****NOTE TO SPECIFIER** Verify with the manufacturer regional product availability.**

- DeckSeal Roofing System.
 - A system comprised of component SBS modified bitumen membranes which, used in combination and according to instructions, creates a waterproof low slope roofing system.
 - A Dual Compound Formulation to meet performance needs of different layers: top coat compound provides excellent granule adhesion (cap sheet), back coat compound provides aggressive adhesion to the substrate.
 - Granule free adhesive selvage on both the sides and end laps (cap sheet).
 - The DeckSeal™ System is designed for use on ¼:12 to 2:12 roof slopes.
 - The DeckSeal™ components include:
 - DeckSeal™ SBS SA Cap Sheet - self-adhered granulated cap sheet
 - DeckSeal™ SBS SA Base/Ply Sheet - A self-adhered base/ply sheet
 - DeckSeal™ MA Nailbase - A nailable base sheet - where a nailable base sheet or self-adhered base/play is used as a base layer for the granulated cap sheet for a minimum recommended 2 ply system, and where a self-adhered base/ply can be used as a 2nd layer in a 3-ply system.
 - Attractive colors that complement popular shingle offerings.
 - Roll Dimensions:
 - 32 ft. 10 in. by 39-3/8 in. – Cap sheet
 - 65 ft. 8 in. by 39-3/8 in. – Nailable base or self-adhered base
 - Standards/Qualifications: UL 790/ASTM E108 fire resistance¹; FM 4474 wind uplift resistance²; ASTM D6163 (base/ply sheet), ASTM D6164 (cap sheet); Florida Product Approval for use in HVHZ and Non-HVHZ areas; and Miami-Dade Product Approval.

¹ Class A, B, or C fire resistance based on system used and slope of roof. Consult the UL Online Classification Directory for fire resistance classifications for specific systems.

² Check local building codes for wind uplift requirements and DeckSeal™ literature for wind uplift resistance information.

2.8 ROOF VENTILATION

****NOTE TO SPECIFIER** Delete attic ventilation products from the list below that are not required.**

****NOTE TO SPECIFIER** Verify with the manufacturer regional product availability.**

- VentSure® RidgeCat® Rolled Ridge Vent.
 - Shingle-over, low profile ridge vent with nylon entangled-net structure allows the passage of hot and/or moisture-laden air from attics, while prohibiting wind-driven rain.
 - Provides 15 sq in (9677 sq mm) NFVA per lineal foot.
 - Available in 20 ft (6.1 m) rolls in three different widths (regional availability): 11 in (279 mm), 7 in (178 mm), and 9 in (229 mm) widths.
 - Suitable on roofs with a pitch from 2:12 to 18:12.
 - Standards/Qualifications: Passes Wind-Driven Rain with 8.8 in (224 mm) of rain/hr at 110 mph (177 km/h), ICC-ES AC132, UL ER21292-01, Florida Product Approval.
- VentSure® Rigid Roll Ridge Vent with Weather PROtector® Moisture Barrier.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

1. Shingle-over, low profile ridge vents with Weather PROtector® Moisture Barrier allows the passage of hot and/or moisture-laden air from attics, while prohibiting snow infiltration.
 2. Provides 12.5 sq in (8200 sq mm) NFVA per lineal foot.
 3. Available in 20 ft (6.1 m) rolls in three different widths (regional availability): 7 in (178 mm), 9 in (229 mm), and 11-1/4 in (286 mm).
 4. Suitable on roofs with a pitch from 2:12 to 20:12.
 5. Standards/Qualifications: ICC-ESR 2664, Passes Wind-Driven Rain with 8.8 in (224 mm) of rain/hr at 110 mph (177 km/h), and Snow Infiltration at 35 mph (56 km/h) and 70 mph (112 km/h) Tests, UL ER21292-01, Florida Product Approval, and Miami-Dade County Product Approval.
- C. VentSure® 4 ft (1.2 m) Strip Heat and Moisture Ridge Vent, 12 in width
1. Shingle-over, polypropylene ridge ventilator designed to work with eave/soffit intake ventilation to maximize the flow of cool, fresh air through the roof and attic structure.
 2. Patented corrugated ridge design and interlocking feature for additional flexibility and strength
 3. Provides 20 sq in (12900 sq mm) NFVA per lineal foot.
 4. Optional Weather PROtector® filter provides added protection against wind-driven rain and snow infiltration.
 5. 15 in (381 mm) wide and 1 in (25 mm) high, with a shingle-over width of 12 in (305 mm).
 6. Suitable on roofs with a pitch from 3:12 to 6:12.
 7. Standards/Qualifications: Passes Wind-Driven Rain with 8.8 in (224 mm) of rain/hr at 110 mph (177 km/h), UL ER21292-01, Florida Product Approval, Miami-Dade County Product Approval, and TDI listed for usage in Texas Coastal Regions (RV-47).
- D. VentSure® 4 ft (1.2 m) Strip Heat and Moisture Ridge Vent, 8 in (203 mm) and 10 in (254 mm) width.
1. Shingle-over, polypropylene ridge ventilator designed to work with eave/soffit intake ventilation to maximize the flow of cool, fresh air through the roof and attic structure.
 2. Patented corrugated ridge design and interlocking feature for additional flexibility and strength.
 3. Provides 18 sq in (11600 sq mm) NFVA per lineal foot.
 4. Optional Weather PROtector® filter provides added protection against wind-driven rain and snow infiltration.
 5. Available in 8 in (203 mm) and 10 in (254 mm) shingle-over widths that are 1 in (25 mm) high and overall product width is 11.43 in (290 mm) and 13.28 in (337 mm), respectively.
 6. Suitable on roofs with a pitch from 3:12 to 16:12.
 7. Standards/Qualifications: Passes Wind-Driven Rain with 8.8 in (224 mm) of rain/hr at 110 mph (177 km/h), UL ER21292-01, Florida Product Approval, Miami-Dade County Product Approval, and TDI listed for usage in Texas Coastal Regions (RV-47).
- E. VentSure® SkyRunner LTE™ Rolled Ridge Vent
1. Shingle-over, polypropylene ridge ventilator designed to work with eave/soffit intake ventilation to maximize the flow of cool, fresh air through the roof and attic structure.
 2. Provides 12 sq in (7742 sq mm) NFVA per lineal foot.
 3. Available in 30 ft (9.1 m) rolls in 14-1/2 in (368 mm) width.
 4. Suitable on roofs with a pitch from 2:12 to 16:12.
 5. Standards/Qualifications: Passes Wind-Driven Rain with 8.8 in (224 mm) of rain/hr at 110 mph (177 km/h), ICC-ES AC132, UL ER21292-01, Florida Product Approval.
- F. VentSure® Metal Slant Back Roof Vent
1. Rooftop mounted, slant-back designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
 2. Each vent provides 51 sq in (32900 sq mm) NFVA.
 3. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill Finish.
 4. 16 in (406 mm) by 20 in (508 mm) base, 8 in (203 mm) diameter opening.
 5. Suitable on roofs with a pitch up to 12:12.
 6. Standards/Qualifications: TDI listed for usage in Texas Coastal Region (RV-20)



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- G. Plastic Slant Back Roof Vent
1. Rooftop mounted, slant-back design with full screen, high-impact resin exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
 2. Each vent provides 55 sq in (35500 sq mm) NFVA.
 3. Available in Weathered Grey, Brown, Black, Cedar, or White finish.
 4. 17 in (432 mm) by 18 in (457 mm) base, 9 in (229 mm) by 9 in (229 mm) opening.
 5. Standards/Qualifications: TDI listed for usage in Texas Coastal Regions (RV-20).
- H. VentSure® Metal Square Top Roof Vent
1. Rooftop mounted, square-top designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
 2. Each vent provides 51 sq in (32900 sq m) NFVA.
 3. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
 4. 16-1/2 in (419 mm) by 17-1/2 in (445 mm) base, 8 in (203 mm) by 8 in (203 mm) opening.
 5. Suitable on roofs with a pitch up to 12:12.
- I. VentSure® Low Profile Slant Back Roof Vent with Exterior Louver
1. Rooftop mounted, low-profile, slant back metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
 2. Each vent provides 72 sq in (46500 sq mm) NFVA.
 3. Galvanized steel available in Black, White Brown, Light Grey, Dark Gray, or Mill finish.
 4. 32 in (813 mm) by 23 in (584 mm) base, 11 in (279 mm) by 11 in (279 mm) opening. Available with extended flange 36 in (914 mm) by 28 in (711 mm).
 5. Suitable on roofs with a 3:12 pitch or greater.
 6. Standards/Qualifications: Miami-Dade County Product Approval.
- J. VentSure® Metal Dome with Screen
1. Rooftop mounted, dome, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics, while prohibiting snow infiltration.
 2. Each vent provides 144 sq in (92900 sq mm) NFVA.
 3. Galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
 4. 25 in (635 mm) by 25 in (635 mm) base, 15 in (381 mm) diameter opening.
 5. Suitable on roofs with a pitch up to 8:12.
- K. VentSure® Internally Braced Premium Turbine Vent
1. Rooftop mounted, turbine designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics with sealed and lubricated stainless steel ball bearings.
 2. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
 3. Available with 12 in (305 mm) diameter opening and 16 in (406 mm) base or 14 in (356 mm) diameter opening with 18 in (457 mm) base.
- L. VentSure® Internally Braced Standard Turbine Vent
1. Rooftop mounted, turbine designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
 2. Aluminum and galvanized steel available with a 12 in (305 mm) or 14 in (356 mm) opening.
 3. 12 in (305 mm) opening with 16 in (406 mm) base available in Brown, Black, or Mill finish.
 4. 14 in (356 mm) opening with 16 in (406 mm) base available in Mill finish.
- M. VentSure® Externally Braced Premium Turbine Vent
1. Rooftop mounted, turbine designed, metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics with sealed and lubricated stainless steel ball bearings.
 2. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
 3. Available with 12 in (305 mm) opening and 16 in (406 mm) base.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- N. VentSure® 1400 CFM Powered Roof Vent
1. Rooftop mounted, 1400 CFM (39.6 cu m/min), metal exhaust ventilator designed to evacuate hot and/or moisture-laden air from attics.
 2. Each vent provides ventilation for 2000 sq ft (186 sq m) attic
 3. Includes adjustable thermostat and humidistat and 4.5 Amp motor.
 4. Aluminum and galvanized steel available in Weathered Grey, Brown, Black, or Mill finish.
 5. 25 in (635 mm) by 25 in (635 mm) base with 15 in (381 mm) opening.
 6. Suitable on roofs with a pitch up to 8:12.
- O. VentSure® 1080 CFM Powered Roof Vent
1. Rooftop mounted, 1080 CFM (30.6 cu m/min), metal exhaust ventilator designed to evacuate hot air from attics.
 2. Each vent provides ventilation for 1600 sq ft (149 sq m) attic.
 3. Includes adjustable thermostat and humidistat and 2.6 Amp motor.
 4. Aluminum and galvanized steel available in Weathered Grey, Brown, Black or Mill finish.
 5. 25 in (635 mm) by 25 in (635 mm) base with 15 in (381 mm) opening.
 6. Suitable on roofs with a pitch up to 8:12.
- P. VentSure® Aluminum Undereave Intake Vent
1. Rectangular aluminum intake vents designed to introduce fresh, dry air into the attic. Pre-drilled holes for easy installation and fully screened for first line of defense against insects.
 2. Available in Mill and White and three different dimensions designed to work collectively with exhaust vents to provide ventilation to roof structures.
 3. 4 in (102 mm) by 16 in (406 mm) opening provides 16.34 sq in (10500 sq mm) NFVA, 6 in (152 mm) by 16 in (406 mm) opening provides 27.23 sq in (17600 sq mm) NFVA and 8 in (203 mm) by 16 in (406 mm) opening provides 38.12 sq in (24600 sq mm) NFVA.
- Q. VentSure® 8 ft (2.4 m) Continuous Soffit Vent
1. 8 ft (2.4 m) continuous aluminum soffit vent offering 37.47 sq in (24200 sq mm) NFVA.
 2. Available in 2 in (51 mm) widths, designed to work collectively with exhaust vents to provide ventilation to roof structures.
- R. VentSure® Round Mini Soffit Vent
1. Round miniature aluminum soffit vents designed to introduce fresh, dry air into the attic.
 2. Available in Mill finish and three sizes designed to work collectively with exhaust vents to provide ventilation to roof structures.
 3. 2 in (51 mm) round opening provides 0.64 sq in (4100 sq mm) NFVA, 3 in (76 mm) round opening provides 1.36 sq in (8800 sq mm) NFVA, and 4 in (102 mm) round opening 2.43 sq in (15700 sq mm) NFVA.
- S. VentSure® InFlow® Vent
1. Shingle-over, polypropylene intake vent solution for soffit-less and open-rafter homes, and homes with inadequate intake. Designed to work with exhaust ventilation to help achieve a balanced air ventilation system.
 2. Patent-pending bottom intake design helps protect against wind-driven rain.
 3. 4 ft (2.4 m) strip provides 10 sq in (6500 sq mm) NFVA per lineal foot, or 40 sq in (25800 sq mm) NFVA per vent
 4. Weather PROtector® Moisture Barrier provides added protection against wind-driven rain and snow infiltration.
 5. Roof Mount Unit dimensions: 48 in (1219 mm) length, 15 in (381 mm) width and 1 in (25 mm) height.
 6. Suitable for use on roofs with a pitch from 4:12 to 16:12.
 7. Standards/Qualifications: Passes Wind-Driven Rain with 8.8 in (224 mm) of rain/hr at 110 mph (177 km/h); ICC-ES AC132; TDI listed for usage in Texas Coastal Regions (RV-82) and Florida Product Approval.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- T. VentSure® Solar Attic Exhaust Fan: Roof Mount Unit
1. 25-Watt solar-powered attic ventilator efficiently exhausts hot, humid air from the attic. Designed to work as part of a balanced air ventilation system in conjunction with Undereave/Soffit vents.
 2. Electronic thermostat and humidistat for efficient operation.
 3. Electric backup available for hookup for continued operation after dusk or when adequate solar power is not available.
 4. Ventilates up to 3200 sq ft (297 sq m) attic space (under certain conditions, including adequate intake ventilation).
 5. 38-volt DC Motor (variable speed) with external brushes.
 6. 14 in (356 mm) 3-wing ultra quiet aluminum blades with pitch angle matched to motor/solar panel.
 7. Black, powder-coated, 20 gauge, 0.0396 in (1.006 mm) galvanized steel flashing and housing.
 8. Remote Attic Monitor (optional) displays attic temp, humidity, fan operation, and source of power via portable device from almost anywhere in the home.
 9. Roof Mount Unit dimensions: 26 in (660 mm) length, 26 in (660 mm) width, 10-3/16 in (259 mm) height; Solar Panel Dimensions: 18-3/4 in (476 mm) length, 17-1/4 in (438 mm) width and 1 in (25 mm) height; 36.0 lbs (16.3 kg) shipping weight.
 10. Suitable for use on asphalt-shingled roof decks with a pitch from 3:12 to 16:12.
 11. Standards/Qualifications: TDI listed for use in Texas Coastal Regions (RV-84); Florida Product Approval, and complies with UL 1703 impact resistance requirements.
- U. VentSure® Solar Attic Exhaust Fan: Gable Mount Unit
1. 25-Watt solar-powered attic ventilator efficiently exhausts hot, humid air from the attic. Designed to work as part of a balanced air ventilation system in conjunction with Undereave/Soffit vents.
 2. Only the solar panel is mounted on the roof with the Gable Mount Solar Attic. The fan is mounted in the attic and vents out the gable vents.
 3. Electronic thermostat and humidistat for efficient operation.
 4. Electric backup available for hookup for continued operation after dusk or when adequate solar power is not available.
 5. Ventilates up to 4200 sq ft (390 sq m) attic space (under certain conditions, including adequate intake ventilation)
 6. 38-volt DC Motor (variable speed) with external brushes.
 7. 14 in (356 mm) 3-wing ultra quiet aluminum blades with pitch angle matched to motor/solar panel
 8. Fan housing is electro-deposition, galvanized, powder coated with 3 mils to 5 mils (0.076 mm to 0.127 mm) thickness.
 9. Remote Attic Monitor (optional) displays attic temp, humidity, fan operation, and source of power via portable device from almost anywhere in the home.
 10. Gable-Mount Solar Fan Dimensions: 16 in (406 mm) length, 14 in (356 mm) width, and 8-1/2 in (216 mm) height; Solar Panel Dimensions: 18-3/4 in (476 mm) length, 17-1/4 in (438 mm) width and 1 in (25 mm) height; 25.7 lbs (11.6 kg) shipping weight.
 11. Suitable for use on roofs with a pitch from 3:12 to 16:12.
 12. Standards/Qualifications: Solar panel complies with UL 1703 impact resistance requirements.

2.9 FASTENERS

- A. Fasteners: Galvanized steel, stainless steel, or aluminum nails complying with ASTM F1667, minimum 12-gauge, 0.0808 in (2.05 mm) shank with 3/8 in (9.5 mm) diameter head. Check local building code requirements.

2.10 METAL FLASHING



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- A. Flashing: Provide flashing as specified by Section 07600 - Metal Flashing and Sheet Metal.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, examine all roof decks on which work will be applied for defects in materials and workmanship.
- B. Do not begin installation until the roof deck has been properly prepared.
- C. If another installer is responsible for roof deck preparation, notify the architect, designer-of-record on the project, or building owner of unsatisfactory preparation prior to proceeding with installation. Commencement of installation constitutes acceptance of conditions.
- D. Underlayment and shingles installed directly over roof insulation or similar type decks is not approved.
 - 1. Roof deck must be dry, minimum 3/4 in (19 mm) thick, minimum 6 in (152 mm) wide boards with maximum 1/4 in (6.4 mm) spaces, or APA rated sheathing (exposure 1): minimum 3/8 in (9.5 mm) plywood, minimum 7/16 in (11.1 mm) oriented strand board. Consult your manufacturer for other approved constructions.
 - 2. Ventilation under the roof deck must meet local code requirements.

3.2 PREPARATION

- A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- B. Remove all existing roofing down to the roof deck.
- C. Verify that the deck is dry, structurally sound, clean and smooth. It shall be free of any depressions, waves, and projections. Cover ALL holes 1 in (25 mm) or less in diameter, cracks over 1/2 in (13 mm) in width, loose knots and excessively resinous areas with minimum 28 gauge; 0.0187 in (0.475 mm) galvanized steel, 0.0156 in (0.396 mm) stainless steel, or 0.0126 in (0.320 mm) aluminum sheet metal. Decking or deck boards with holes greater than 1 in (25 mm) in diameter shall be replaced.
- D. Replace damaged deck with new materials.
- E. Verify installed roof deck is acceptable to receive shingles. Acceptable roof decks include the following:
 - 1. Wood boards: 6 in (152 mm) minimum width, 3/4 in (19 mm) minimum thickness.
 - 2. Plywood sheathing: 3/8 in (9.5 mm) minimum thickness Exposure 1 grade plywood sheathing as recommended by APA and in compliance with local building code requirements.
 - 3. OSB panels: 7/16 in (11.1 mm) minimum thickness non-veneer structural panels as recommended by APA and in compliance with local building code requirements.
 - 4. Spacing between boards or panels shall not exceed 1/4 in (6.4 mm) between roof boards or 1/8 in (3.2 mm) between plywood or OSB sheathing panels.

3.3 UNDERLAYMENT INSTALLATION



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- A. Install Owens Corning™ underlayments using Owens Corning, installation instructions and in accordance with local building code requirements. When local codes and installation instructions are in conflict, the local building code requirements shall take precedence.
1. Install self-adhering ice and water barrier from the eaves edge of roof up the slope a full 36 in (914 mm) but not less than 24 in (610 mm) beyond the interior edge of the exterior wall. Lap ends 6 in (152 mm) on roof decks sloped 5:12 and greater. On roofs with slopes from 2:12 up to 4:12, see application instructions printed on each package.
- B. Drip Edge
1. Drip edge shall be installed on all roof edges.
 2. Install drip edge on eaves first with underlayment installed over the drip edge, or install per local code requirements.
 3. Install drip edge on rakes after underlayment is installed, with the drip edge fastened over the underlayment.
 4. Joints in drip edge shall be lapped minimum 2 in (51 mm) with the upslope piece lapped over the down slope piece, or per local building code requirements
 5. Install fasteners 8 in to 10 in (203 mm to 254 mm) on center, approximately 1-3/4 in (44 mm) to 3 in (76 mm) from the outside edge of the drip edge, or per local building code requirements.
- C. Valleys
1. Install self-adhering ice and water barrier at least 36 in (914 mm) wide and centered on the valley. Lap ends 6 in (152 mm) and seal.
 2. Where valleys are indicated to be "open valleys", install metal flashing over self-adhering ice and water barrier before roof deck underlayment is installed; DO NOT nail through the flashing. Secure the flashing by nailing at 18 in (457 mm) on center just beyond edge of flashing so that nail heads hold down the edge, or use valley metal with a formed edge and secure with clips.
- D. Roof Deck
1. On roofs with slope greater than 4:12, lap horizontal edges at least 2 inches (51 mm) and at least 2 inches (51 mm) over self-adhering ice and water barrier. Lap ends at least 4 inches (102 mm). End laps in succeeding course should be located at least 6 ft (1.8 m) from end laps in the preceding course.
 2. On roofs with pitch between 2:12 to less than 4:12, see application instructions printed on each shingle wrapper, or follow local code requirements.
 3. Lap underlayment over valley protection at least 6 inches (152 mm).
- E. Penetrations
1. Vent pipes: Install a 24 in (610 mm) square piece of self-adhering ice and water barrier lapping over roof deck underlayment; seal tightly to pipe.
 2. Vertical walls: Install self-adhering ice and water barrier extending at least 3 in to 4 in (76 mm to 102 mm) up the wall and 12 in (305 mm) onto the roof surface. Lap the membrane over the roof deck underlayment.
 3. Chimneys: Install self-adhering ice and water barrier around entire chimney extending at least 6 in (152 mm) up the wall and 12 in (305 mm) on to the roof surface. Lap the membrane over the roof deck underlayment.

3.4 SHINGLE INSTALLATION

- A. Install Owens Corning™ shingles (including started shingles as well as hip and ridge shingles) in accordance with Owens Corning installation instructions and in accordance with local building code requirements.
- B. Install starter course at lowest roof edge and along rake with edge of shingles extending 1/4 in (6.4 mm) over edge of roof. Sealant strip should be closest to roof edge.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

- C. Install first and successive courses of shingles stepping diagonally up and across roof deck with Owens Corning recommended offset at each succeeding course. Maintain uniform exposure of shingles at each succeeding course. Use of a chalk line every other course is recommended.
- D. Fasten shingles to deck with number of roofing nails per shingle and type of nails specified by Owens Corning, or in accordance specified by local Authority Having Jurisdiction.
- E. All fasteners must be driven flush with the shingle surface and penetrate at least 3/4 in (19.1 mm) into the wood deck. Where the deck is less than 3/4 in (19.1 mm) thick, the fastener should be long enough to penetrate fully and extend through the roof sheathing.
- F. Install Owens Corning shingles at valleys, eaves, rakes, hips and ridges in accordance with Owens Corning installation instructions and local building code requirements.

3.5 LOW SLOPE ROOFING SYSTEM INSTALLATION

- A. Install Owens Corning™ low slope roofing system in accordance with Owens Corning installation instructions and in accordance with local building code requirements.
- B. Owens Corning™ low slope roofing system should only be installed on roofs with a slope of ¼:12 to 2:12.
- C. Apply only when the weather is dry and the ambient temperature is 45°F (7°C) and rising. Do not install when water in any form (i.e. rain, dew, ice, frost, snow) exist.
- D. Apply only over clean, dry, dust-free surfaces
- E. Ensure installation of DeckSeal MA NailBase does not prevent or interfere with ventilation of the existing structure.

3.6 VENT INSTALLATION

- A. Install Owens Corning™ vents in accordance with Owens Corning installation instructions and local building code requirements.
- B. Ventilation at minimum must meet or exceed local building code requirements. Owens Corning recommends:
 - 1. Net Free Ventilating Area (NFVA) of 1:150 as a minimum.
 - 2. Balanced approach for most effective ventilation (balance between the lower and upper parts of the roof by providing 50% of NFVA at the soffit and 50% at the ridge).
 - 3. NFVA at the upper part of the roof should not exceed 50%.
 - 4. Where length of the roof ridge is sufficient provide continuous ridge vents for most effective ventilation approach.

3.7 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SureNail® Technology is proprietary with U.S. and foreign protection including U.S. Patent Nos. 7,836,654; 8,156,704; 8,181,413; 8,240,102; 8,430,983; 8,607,521; 8,623,164; 8,752,351; 8,991,130; 9,121,178; and other patents pending.



Fiberglass-Based Asphalt Shingles & Accessories

Guide Specifications

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