

Product Evaluation

RC135 | 0720

Engineering Services Program

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 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 determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of 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.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-135

Effective Date: July 1, 2020

Re-evaluation Date: July 2024

Product Name: Majestic Slate, Majestic Niagara Slate, Majestic Slate Random-Width Blend, and Seneca Shake Thermoplastic Olefin and Rubber Based Roofing Products Installed over a Wood Structural Panel Roof Deck

Manufacturer: EcoStar, LLC
42 Edgewood Drive
Holland, NY 14080
(800) 211-7170

General Description:

EcoStar Majestic Slate Products:

The EcoStar Majestic Slate roof tiles/shingles are manufactured from recycled thermoplastic and rubber-based materials. The tiles/shingles are available in Traditional, Beaver Tail, Chisel Point, and Beveled styles. The finished product measures 10" wide or 12" wide x 18" for the Traditional, and 12" wide x 18" for the other shapes. The Majestic products are 3/16" thick and weigh approximately 3 lb/ft² when installed.

EcoStar Majestic Niagara Slate Products:

The EcoStar Majestic Niagara Slate roof tiles/shingles are manufactured from recycled thermoplastic and rubber-based materials. The tiles/shingles are available in the Traditional style. The finished product measures 12" wide or 14" wide x 22". The Majestic Niagara products are 5/8" thick and weigh approximately 2.5 lb/ft² when installed.

EcoStar Majestic Slate Random-Width Blend Products:

The EcoStar Majestic Slate Random-Width Blend roof tiles/shingles are manufactured from recycled thermoplastic and rubber-based materials. The tiles/shingles are available in the Traditional style. The finished product measures 6" wide or 9" wide x 18". The Majestic products are 1/4" thick and weigh approximately 3 lb/ft² when installed.

EcoStar Seneca Shake Products:

The EcoStar Seneca Shake roof tiles/shingles are manufactured from recycled thermoplastic and rubber-based materials. The tiles are available in three mixed sizes: 6", 9" and 12" wide by 19" long. Seneca is 3/8" thick, and the weight of the Seneca is approximately 3 lb/ft² when installed.

Limitations:

Roof Slope: Products must not be installed on roof slopes less than 3:12.

Maximum Exposure:

For Roof Slopes Less than 6:12. Majestic Slate and Slate Random-Width Blend products must be installed with a maximum exposure of 6"; Majestic Niagara Slate products must be installed with a maximum exposure of 9"; and Seneca products must be installed with a maximum exposure of 7".

For Installation on Roof Slopes Equal to or Greater than 6:12. Majestic Slate and Slate Random-Width Blend products may be installed with 6", 6-1/2" or 7" exposure; Majestic Niagara Slate products may be installed with 9", 9-1/2" or 10" exposure; and Seneca products may be installed with 7", 7-1/2" or 8" exposure.

Temperature of Products at Installation: The products should be at least 45° F prior to installation.

Design Wind Pressures: The design pressure uplift load resistance must be as specified in Tables 1, 2, and 3.

Installation:

General: The roofing panels must be installed in accordance with the manufacturer's recommended installation instructions and this evaluation report.

New Roof Framing Attachment: The roof framing must meet or exceed the uplift requirements of the IRC or IBC and must be installed in a manner to resist wind loads as required.

Roof Framing Spacing: The roof framing members must be spaced a maximum of 24" on center.

Roof Deck: The requirements for the roof deck must be as specified in Tables 1 through 3.

Underlayment: Prior to installation of the roof covering, Glacier Guard must be installed in all valleys, eaves, rake edges, hips, ridges and projections. For the remaining roof deck, a minimum of one layer of ASTM D 226, Type II, 30 lb. asphalt felt, or equivalent synthetic underlayment, with minimum 4" side-laps and 6" end-laps must be installed in accordance with the manufacturer's normal installation instructions. If desired, a bead of sealant may be applied to the backside of each tile/shingle to help secure the tabs.

Fasteners: Use minimum 1-1/2" long steel ring shanked nails for Majestic Slate and Seneca Shake. Use minimum 1-3/4" long stainless-steel ring-shank nails for Majestic Niagara Slate. All fasteners have a 3/8" diameter head and a 0.12" shank diameter. The number of required fasteners per roof tile is specified in Tables 1 through 3.

Table 1 Majestic Slate and Majestic Slate Random-Width Blend Roofing Systems

System No.	Design Wind Pressure (psf)	Composite Roof Tile Attachment	Roof Deck
1	-108.8	Two (2) 1-1/2" by 0.12" ring shank nails, 7" exposure	Min. 15/32" plywood
2	-127.5	Four (4) 1-1/2" by 0.12" ring shank nails, 7" exposure	Min. 15/32" plywood
3	-101.3	Two (2) 1-1/2" by 0.12" ring shank nails, 7" exposure	Min. 19/32" plywood
4	-172.5	Four (4) 1-1/2" by 0.12" ring shank nails, 7" exposure	Min. 19/32" plywood
5	-112.5	Two (2) 1-1/2" by 0.12" ring shank nails, 7" exposure	Min. 7/16" OSB
6	-120	Four (4) 1-1/2" by 0.12" ring shank nails, 7" exposure	Min. 7/16" OSB

Table 2 Seneca Shake Roofing Systems

System No.	Design Wind Pressure (psf)	Composite Roof Tile Attachment	Roof Deck
1	-82.5	Two (2) 1-1/2" by 0.12" ring shank nails, 8" exposure	Min. 15/32" plywood
2	-112.5	Four (4) 1-1/2" by 0.12" ring shank nails, 8" exposure	Min. 15/32" plywood
3	-105	Two (2) 1-1/2" by 0.12" ring shank nails, 8" exposure	Min. 19/32" plywood
4	-180	Four (4) 1-1/2" by 0.12" ring shank nails, 8" exposure	Min. 19/32" plywood
5	-67.5	Two (2) 1-1/2" by 0.12" ring shank nails, 8" exposure	Min. 7/16" OSB
6	-82.5	Four (4) 1-1/2" by 0.12" ring shank nails, 8" exposure	Min. 7/16" OSB

Table 3 Majestic Niagara Slate Roofing Systems

System No.	Design Wind Pressure (psf)	Composite Roof Tile Attachment	Roof Deck
1	-71.3	Two (2) 1-3/4" by 0.12" ring shank nails, 10" exposure	Min. 15/32" plywood
2	-142.5	Four (4) 1-3/4" by 0.12" ring shank nails, 10" exposure	Min. 15/32" plywood
3	-101.3	Two (2) 1-3/4" by 0.12" ring shank nails, 10" exposure	Min. 19/32" plywood
4	-120	Four (4) 1-3/4" by 0.12" ring shank nails, 10" exposure	Min. 19/32" plywood
5	-45	Two (2) 1-3/4" by 0.12" ring shank nails, 10" exposure	Min. 7/16" OSB
6	-90	Four (4) 1-3/4" by 0.12" ring shank nails, 10" exposure	Min. 7/16" OSB

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.