

TEXAS DEPARTMENT OF INSURANCE

Engineering Services / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION EC-11

Effective March 1, 2004
Revised August 1, 2005

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation 3 years after the effective date.*

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.

Vinyl siding manufactured by

CertainTeed Corporation
803 Belden Road
Jackson, Michigan 49203
(517) 780-3185

(marketed under trade names **CertainTeed**, **Wolverine**, and **Ashland-Davis**) will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

This product evaluation shall apply to the following products:

Horizontal Siding

CertainTeed:

Monogram Double 4"	Mainstreet Double 4" Dutchlap
Monogram Double 5"	Mainstreet Double 5" Dutchlap
Monogram Double 5" Dutchlap	Hamilton Park Double 4"
Mainstreet Double 4"	Hamilton Park Triple 3"
Mainstreet Triple 3"	Hamilton Park Double 4 1/2" Dutchlap
Mainstreet Double 5"	Hamilton Park Double 5"
Mainstreet Single 8"	
Cedar Impressions Perfection Shingles Double 7	
Cedar Impressions Perfection Shingles Triple 5	
TrueComfort Double 4"	

Wolverine:

Encore Double 4"	American Legend Double 4"
Encore Triple 3"	American Legend Double 5"
Encore Double 5"	American Legend Double 4 ½" Dutchlap
Encore Double 4 ½" Dutchlap	Weatherstone Double 4"
Millennium Double 4"	Weatherstone Double 5"
Millennium Double 4.5"	Weatherstone Double 5" Dutchlap
Restoration Classic Triple 3"	
Restoration Classic Double 4 ½"	
Restoration Shingle Single 7"	

Ashland-Davis:

EasyCare Double 4"	Premium Series 42 Single 8"
EasyCare Double 4 ½" Dutchlap	Premium Series 42 Double 4"
EasyCare Double 5"	Premium Series 42 Double 5"
Premium Series 42 Triple 3"	Premium Series 42 Double 4 ½" Dutchlap

Vertical Siding and Soffit

CertainTeed:

Vinyl Carpentry Universal Triple 4" Vertical/Soffit
Vinyl Carpentry Premium Double 5" Vertical/Soffit
Vinyl Carpentry Beaded Triple 2" Soffit

Wolverine:

Vinyl Carpentry Universal Triple 4" Vertical/Soffit
Vinyl Carpentry Premium Double 5" Vertical/Soffit
Vinyl Carpentry Beaded Triple 2" Soffit

Ashland-Davis:

Vinyl Carpentry Universal Triple 4" Vertical/Soffit

INSTALLATION INSTRUCTIONS

General Installation Requirements:

All fasteners shall be corrosion resistant. If non-structural sheathing (foam or fiberboard) is used, then the length of the fastener used to secure the vinyl siding to the framing shall be increased by the thickness of the non-structural sheathing. Nails shall be driven straight into the center of the nailing slot, except for the top slot of vertical accessories, where the fastener is placed at the upper edge of the topmost slot. Fasteners shall not be driven tightly. Leave at least a 1/32 inch space between the fastener head and the vinyl siding, except for Millennium horizontal siding which must be fastened tight against the flexible hem.

For horizontal siding, apply the starter strips, J-channels, and corner posts with fasteners spaced a maximum of 10 inches on center. Panel ends should be staggered from adjacent courses.

For vertical siding and soffit, apply the starter strips, J-channels, corner posts, and vertical siding panels with fasteners spaced a maximum of 12 inches on center.

Wind Resistant Assemblies:

Assembly No. 1

Horizontal Siding - Fasteners Penetrating into Sheathing

Design pressure: -49 psf

Nominal nailing hem thickness: 0.039 inches

Fasteners: 1 ½" long roofing nails (⅜" diameter head, ⅛" shank diameter)

The following CertainTeed products are applicable: Mainstreet (Double 4, Double 4 Dutchlap, Double 5, Double 5 Dutchlap, Triple 3, Single 8); and Hamilton Park (Double 4, Double 4.5 Dutchlap, Double 5, Triple 3).

The following Wolverine products are applicable: Encore (Double 4, Double 4.5 profiles, Double 5, Triple 3); American Legend (Double 4, Double 4.5 Dutchlap, Double 5); Weatherstone (Double 4, Double 5, Double 5 Dutchlap); and Restoration Classic (Triple 3, Double 4.5).

The following Ashland-Davis products are applicable: EasyCare (Double 4, Double 4.5 Dutchlap, Double 5); Premium Series 42 (Single 6.5, Triple 3, Single 8); and Premium Series 42 (Double 4, Double 4.5 Dutchlap, Double 5).

Installation: Wall studs shall be minimum Stud or No. 3 Douglas Fir-Larch. The studs shall be spaced a maximum of 24 inches on center. A galvanized steel starter strip is required. The vinyl siding shall be fastened to the ½ inch thick sheathing with fasteners spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 2

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -37 psf

Nominal nailing hem thickness: 0.039 inches

Fasteners: 1 ½" long roofing nails (⅜" diameter head, 0.140" shank diameter)

The following CertainTeed products are applicable: Mainstreet (Double 4, Double 4 Dutchlap, Double 5, Double 5 Dutchlap, Triple 3, Single 8); and Hamilton Park (Double 4, Double 4.5 Dutchlap, Double 5, Triple 3).

The following Wolverine products are applicable: Encore (Double 4, Double 4.5 profiles, Double 5, Triple 3); American Legend (Double 4, Double 4.5 Dutchlap, Double 5); Weatherstone (Double 4, Double 5, Double 5 Dutchlap); and Restoration Classic (Triple 3, Double 4.5).

The following Ashland-Davis products are applicable: EasyCare (Double 4, Double 4.5 Dutchlap, Double 5); Premium Series 42 (Single 6.5, Triple 3, Single 8); and Premium Series 42 (Double 4, Double 4.5 Dutchlap, Double 5).

Installation: Wall studs shall be minimum Stud or No. 3 Douglas Fir-Larch. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 3

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -78 psf

Nominal nailing hem thickness: 0.039 inches

Fasteners: 1 1/2" long x 7/16" wide x 16 gauge staples

The following CertainTeed products are applicable: Mainstreet (Double 4, Double 4 Dutchlap, Double 5, Double 5 Dutchlap, Triple 3, Single 8); and Hamilton Park (Double 4, Double 4.5 Dutchlap, Double 5, Triple 3).

The following Wolverine products are applicable: Encore (Double 4, Double 4.5 profiles, Double 5, Triple 3); American Legend (Double 4, Double 4.5 Dutchlap, Double 5); Weatherstone (Double 4, Double 5, Double 5 Dutchlap); and Restoration Classic (Triple 3, Double 4.5).

The following Ashland-Davis products are applicable: EasyCare (Double 4, Double 4.5 Dutchlap, Double 5); Premium Series 42 (Single 6.5, Triple 3, Single 8); and Premium Series 42 (Double 4, Double 4.5 Dutchlap, Double 5).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 4

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -62 psf

Nominal nailing hem thickness: 0.044 inches

Fasteners: 1 1/2" long roofing nails (3/8" diameter head, 1/8" shank diameter)

The following CertainTeed products are applicable: Monogram (Double 4, Double 5, Double 5 Dutchlap).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 5

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -40 psf

Nominal nailing hem thickness: 0.044 inches

Fasteners: 1 1/2" long roofing nails (3/8" diameter head, 1/8" shank diameter)

The following CertainTeed products are applicable: Monogram (Double 4, Double 5, Double 5 Dutchlap).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 24 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners spaced a maximum of 24 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 6

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -104 psf

Nominal nailing hem thickness: 0.044 inches

Fasteners: 1 1/2" long x 7/16" wide x 16 gauge staples

The following CertainTeed products are applicable: Monogram (Double 4, Double 5, Double 5 Dutchlap).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 7

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -132 psf

Nominal nailing hem thickness: 0.050 inches

Fasteners: 1 1/2" long roofing nails (7/16" diameter head, 1/8" diameter barbed shank)

The following Wolverine products are applicable: Millennium (Double 4.5).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. A galvanized steel starter strip is required. The vinyl siding shall be fastened to the wall studs with fasteners located between the red guidelines on the flexible mesh nail hem and spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 8

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -94.7 psf

Nominal nailing hem thickness: 0.050 inches

Fasteners: 1 1/4" long x 7/16" wide x 16 gauge staples

The following Wolverine products are applicable: Millennium (Double 4.5).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. A galvanized steel starter strip is required. The vinyl siding shall be fastened to the wall studs with fasteners oriented vertically (maximum deviation from vertical limited to 45 degrees) and driven with a minimum of one leg between the red guidelines on the flexible mesh nail hem, and spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 9

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -98.7 psf

Nominal nailing hem thickness: 0.050 inches

Fasteners: 1 1/2" long roofing nails (7/16" diameter head, 1/8" diameter barbed shank)

Assembly No. 9 (cont'd)

The following Wolverine products are applicable: Millennium (Double 4.5).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 24 inches on center. A galvanized steel starter strip is required. The vinyl siding shall be fastened to the wall studs with fasteners located between the red guidelines on the flexible mesh nail hem and spaced a maximum of 24 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 10

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -85.3 psf

Nominal nailing hem thickness: 0.050 inches

Fasteners: 1 ¼" long x 7/16" wide x 16 gauge staples

The following Wolverine products are applicable: Millennium (Double 4.5).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 24 inches on center. A galvanized steel starter strip is required. The vinyl siding shall be fastened to the wall studs with fasteners oriented vertically (maximum deviation from vertical limited to 45 degrees) and driven with a minimum of one leg between the red guidelines on the flexible mesh nail hem, and spaced a maximum of 24 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 11

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -150 psf

Nominal nailing hem thickness: 0.044 inches

Fasteners: 1 ½" long roofing nails (3/8" diameter head, 1/8" shank diameter)

The following Wolverine products are applicable: Millennium (Double 4).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners located between the red guidelines on the flexible mesh nail hem and spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 12

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -111 psf

Nominal nailing hem thickness: 0.044 inches

Fasteners: 1 ½" long roofing nails (7/16" diameter head, 1/8" shank diameter)

The following Wolverine products are applicable: Millennium (Double 4).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 24 inches on center. A 0.0175 inch thick galvanized steel starter strip is required. The vinyl siding shall be fastened to the wall studs with fasteners located between the red guidelines on the flexible mesh nail hem and spaced a maximum of 24 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 13

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -151 psf

Nominal nailing hem thickness: 0.044 inches

Fasteners: 1 $\frac{3}{4}$ " long x $\frac{7}{16}$ " wide x 16 gauge staples

The following Wolverine products are applicable: Millennium (Double 4).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 24 inches on center. A 0.0175 inch thick galvanized steel starter strip is required. The vinyl siding shall be fastened to the wall studs with fasteners oriented vertically (maximum deviation from vertical limited to 45 degrees) and driven with a minimum of one leg between the red guidelines on the flexible mesh nail hem, and spaced a maximum of 24 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 14

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -64 psf

Nominal nailing hem thickness: 0.060 inches

Fasteners: 1 $\frac{1}{2}$ " long roofing nails ($\frac{3}{8}$ " diameter head, $\frac{1}{8}$ " shank diameter)

The following Wolverine products are applicable: Restoration Shingle (Single 7).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 15

Horizontal Siding - Fasteners Penetrating into Studs

Design pressure: -73 psf

Nominal nailing hem thickness: 0.060 inches

Fasteners: 1 $\frac{1}{2}$ " long roofing nails ($\frac{7}{16}$ " diameter head, $\frac{1}{8}$ " shank diameter)

The following Wolverine products are applicable: Restoration Shingle (Single 7).

Installation: Wall studs shall be minimum Stud or No. 3 SPF lumber. The studs shall be spaced a maximum of 24 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners spaced a maximum of 24 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 16

Vertical Siding/Soffit - Fasteners Penetrating into Furring Strips

Design pressure: -80 psf

Nominal nailing hem thickness: 0.046 inches

Fasteners: 1 $\frac{1}{2}$ " long roofing nails ($\frac{3}{8}$ " diameter head, $\frac{1}{8}$ " shank diameter)

The following CertainTeed products are applicable: Vinyl Carpentry Premium Double 5 and Vinyl Carpentry Beaded Triple 2.

Assembly No. 16 (cont'd)

The following Wolverine products are applicable: Vinyl Carpentry Double 5 and Vinyl Carpentry Beaded Triple 2.

Installation: Framing members shall be minimum Stud or No. 3 SPF lumber. The framing members shall be spaced a maximum of 16 inches on center. The vertical siding/soffit shall be fastened to 1" x 3" furring strips spaced at a maximum of 12 inches on center. The furring strips shall be fastened to the framing members with a minimum of two 16d common galvanized nails at each framing member they cross.

If the vertical siding/soffit is to be installed over structural sheathing or a nailable wall covering, the nails shall penetrate solid wood a minimum of $\frac{3}{4}$ inches.

Note: If the soffit material is perforated or if the overhang is 24 inches in width or less, then the soffit may be installed in accordance with the manufacturer's installation instructions.

Assembly No. 17

Vertical Siding/Soffit - Fasteners Penetrating into Furring Strips

Design pressure: -69 psf

Nominal nailing hem thickness: 0.038 inches

Fasteners: 1 $\frac{1}{2}$ " long roofing nails ($\frac{3}{8}$ " diameter head, $\frac{1}{8}$ " shank diameter)

The following CertainTeed products are applicable: Vinyl Carpentry Universal Triple 4.

The following Wolverine products are applicable: Vinyl Carpentry Universal Triple 4

The following Ashland-Davis products are applicable: Vinyl Carpentry Universal Triple 4.

Installation: Framing members shall be minimum Stud or No. 3 SPF lumber. The framing members shall be spaced a maximum of 16 inches on center. The vertical siding/soffit shall be fastened to 1" x 3" furring strips spaced at a maximum of 12 inches on center. The furring strips shall be fastened to the framing members with a minimum of two 16d common galvanized nails at each framing member they cross.

If the vertical siding/soffit is to be installed over structural sheathing or a nailable wall covering, the nails shall penetrate solid wood a minimum of $\frac{3}{4}$ inches.

Note: If the soffit material is perforated or if the overhang is 24 inches in width or less, then the soffit may be installed in accordance with the manufacturer's installation instructions.

Assembly No. 18

Vertical Siding/Soffit - Fasteners Penetrating into Furring Strips

Design pressure: -48 psf

Nominal nailing hem thickness: 0.038 inches

Fasteners: 1 $\frac{1}{2}$ " long roofing nails ($\frac{3}{8}$ " diameter head, $\frac{1}{8}$ " shank diameter)

The following CertainTeed products are applicable: Vinyl Carpentry Premium Double 5 and Vinyl Carpentry Beaded Triple 2.

The following Wolverine products are applicable: Vinyl Carpentry Premium Double 5; Vinyl Carpentry Universal Triple 4; and Vinyl Carpentry Beaded Triple 2.

Assembly No. 18 (cont):

The following Ashland-Davis products are applicable: Vinyl Carpentry Universal Triple 4.

Installation: Framing members shall be minimum Stud or No. 3 SPF lumber. The framing members shall be spaced a maximum of 24 inches on center. The vertical siding/soffit shall be fastened to 1" x 3" furring strips spaced at a maximum of 12 inches on center. The furring strips shall be fastened to the framing members with a minimum of two 16d common galvanized nails at each framing member they cross.

If the vertical siding/soffit is to be installed over structural sheathing or a nailable wall covering, the nails shall penetrate solid wood a minimum of $\frac{3}{4}$ inches.

Note: If the soffit material is perforated or if the overhang is 24 inches in width or less, then the soffit may be installed in accordance with the manufacturer's installation instructions.

Assembly No. 19

Horizontal Siding – Fasteners Penetrating into Studs

Design pressure: -64 psf

Nominal nailing hem thickness: 0.060 inches

Fasteners: 1 $\frac{1}{2}$ " long roofing nails ($\frac{3}{8}$ " diameter head, $\frac{1}{8}$ " shank diameter)

The following CertainTeed products are applicable: TrueComfort Double 4

Installation: Wall studs shall be minimum Stud or No. 2 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The vinyl siding shall be fastened to the wall studs with fasteners spaced a maximum of 16 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 20

Horizontal Siding – Fasteners Penetrating into Sheathing

Design pressure: -58 psf

Nominal nailing hem thickness: 0.10 inches

Fasteners: 1 $\frac{1}{2}$ " long roofing nails ($\frac{3}{8}$ " diameter head, $\frac{1}{8}$ " diameter)

The following CertainTeed products are applicable: Cedar Impressions Perfection Shingle Triple 5

Installation: Wall studs shall be minimum Stud or No. 2 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The sheathing shall be minimum 7/16" thick OSB. The siding shall be fastened to the sheathing with fasteners spaced a maximum of 10 inches on center. Panel ends should be staggered from adjacent courses.

Assembly No. 21

Horizontal Siding – Fasteners Penetrating into Sheathing

Design pressure: -86 psf

Nominal nailing hem thickness: 0.10 inches

Fasteners: 1 $\frac{1}{2}$ " long ring-shank roofing nails ($\frac{3}{8}$ " diameter head, $\frac{1}{8}$ " shank diameter)

The following CertainTeed products are applicable: Cedar Impression Perfection Shingle Double 7

Assembly No. 21 (cont)

Installation: Wall studs shall be minimum Stud or No. 2 SPF lumber. The studs shall be spaced a maximum of 16 inches on center. The sheathing shall be minimum 7/16" thick OSB. The siding shall

Be fastened to the sheathing with fasteners spaced a maximum of 12 inches on center. Panel ends should be staggered from adjacent courses.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC).