

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION EC-16

Effective September 1, 2012
Revised August 1, 2013

*The following product has been evaluated for compliance with the wind loads specified in **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **December 2013**.*

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.

Fiber Cement Lap Siding manufactured by

CertainTeed Fibercement Plant
P.O. Box 189
Roaring River, North Carolina 28669
Telephone: 800-233-8990

CertainTeed Fibercement Plant
P.O. Box 2455
1200 Avenue G
White City, Oregon 97503
Telephone: 541-826-5867

and distributed under the brand names **CertainTeed WeatherBoards™** will be acceptable 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

The fiber cement lap and panel siding products evaluated in this report are cellulose fiber reinforced cement siding boards comprised of cellulose fiber bundles that are mixed with Portland cement, flyash, silica, and clay. The cellulose fiber cement mixture is formed into sheets and then cut to master size. A smooth or embossed pattern is pressed into the masters before they are sent to the final autoclaving process. After the autoclaving process, the masters are cut to product sizes. A primer coating is applied to the siding, and at the customer's request, a finish paint coating may be applied to the siding.

All siding shall be clearly labeled with the manufacturer's name and/or trademark.

The following fiber cement siding products have been accepted:

Lap Siding is nominal $\frac{5}{16}$ thick. The siding is available in 5¼, 6¼, 7¼, 8¼ and 9¼ inch wide profiles. The siding is 12 feet in length. The following profiles and textures are available: cedar lap siding with a textured surface; beaded lap siding with a textured surface; beaded lap siding with a smooth surface; and smooth lap siding.

Shapes Siding is nominal $\frac{5}{16}$ inch thick. The siding panels are 16 inches wide and 48 inches long and are available in 4 different configurations: Random Square Straight Edge, Random Square Staggered Edge, Half-Rounds and Octagons with a textured surface.

Perfection Shingles is nominal $\frac{7}{16}$ inch thick. The siding is 8 ¼ inch wide and 12 feet long and has a textured surface.

Individual Shakes is nominal ¼ inch thick. The shake panels come in 6 ¼, 8 ¼, and 12 inch widths, are 18 inches long and have a textured surface.

INSTALLATION INSTRUCTIONS

General Installation Requirements:

All fasteners shall be corrosion resistant. If non-structural sheathing is installed between the siding and the wall studs, then the length of the fastener shall be increased such that the fasteners penetrate the wall studs a minimum of 1¼ inch unless instructed otherwise. Fiber cement siding shall not be used to resist lateral loads.

Wind Resistant Assemblies:

| Table 1A: Lap Siding, 9 ¼ inches in width or less | | | | | |
|---|--|--------------------------|--|--------------------------|----------------------------------|
| Face Fastened | | | | | |
| Assembly Number | Allowable Design Pressure (psf) | Fastening Method | Fastener Type | Min. Framing Type | Max. Framing Spacing (in) |
| 1 | -68 | Face fastened to framing | 7d galvanized siding nails (2 ½ inches long, nominal 0.095 inch shank diameter, 0.235 head diameter) | 2 x 4 Spruce-Pine-Fir | 16 |
| <p>Installation: Wall bracing shall be installed as required. A building paper shall be applied to the wall studs prior to siding installation. Vertical joints shall occur over wall framing. The siding shall be applied with a minimum 1 ¼ inch overlap. Position the fasteners ¾ inch from the bottom edge of the siding in order to penetrate both courses. Fasten ⅜ inch from butt ends.</p> | | | | | |

| Table 1B: Lap Siding, 9 ¼ inches in width or less | | | | | |
|---|--|---------------------------|--|--|----------------------------------|
| Blind Fastened | | | | | |
| Assembly Number | Allowable Design Pressure (psf) | Fastening Method | Fastener Type | Min. Framing Type | Max. Framing Spacing (in) |
| 2 | -40 | Blind fastened to framing | 6d galvanized roofing nails (2 inch long, 0.120 shank diameter, ⅜ inch diameter head) | 2 x 4 Spruce-Pine-Fir | 16 |
| 3 | -32 | Blind fastened to framing | Min. #8 x 1 ⅝ inch long self-tapping, corrosion resistant screws with a ⅜ inch diameter wafer head | Min. 16 gauge 3.625" x 1.375" steel C-stud | 16 |
| <p>Installation: Wall bracing shall be installed as required. A building paper shall be applied to the wall studs prior to siding installation. Vertical joints shall occur over wall framing. The siding shall be applied with a minimum 1¼ inch overlap. Position the fasteners ¾ inch from the top edge of the siding. Fasten ⅜ inch from butt ends. For installation over metal wall studs, a minimum of ½ inch thick gypsum shall be applied on the interior surface.</p> | | | | | |

| Table 2: Shapes Siding Blind Fastened | | | | | | |
|--|---------------------------------|-----------------------------|---------------------------------|-----------------------|---------------------------|------------------------------|
| Assembly Number | Allowable Design Pressure (psf) | Fastening Method | Fastener Type | Min. Framing Type | Max. Framing Spacing (in) | Min. Sheathing |
| 4 | -89 | Blind fastened to sheathing | 6d galvanized, ring-shank nails | 2 x 4 Spruce-Pine-Fir | 16 | $\frac{5}{8}$ inch thick OSB |
| Installation: A building paper shall be applied to the wall sheathing prior to siding installation. Refer to the manufacturer's installation instructions for installation requirements. Shapes siding has different requirements for fastener placement and overlapping. | | | | | | |

| Table 3: Perfection Shingles Blind Fastened | | | | | |
|--|---------------------------------|---------------------------|--|-----------------------|---------------------------|
| Assembly Number | Allowable Design Pressure (psf) | Fastening Method | Fastener Type | Min. Framing Type | Max. Framing Spacing (in) |
| 5 | -31 | Blind fastened to framing | Min. 1 $\frac{3}{4}$ inch galvanized roofing nails, 0.120" shank diameter, $\frac{3}{8}$ " head diameter | 2 x 4 Spruce-Pine-Fir | 16 |
| Installation: Wall bracing shall be installed as required. A building paper shall be applied to the wall studs prior to siding installation. Vertical joints shall occur over wall framing. The siding shall be applied with a minimum 1 $\frac{1}{4}$ inch overlap. Position the fasteners $\frac{3}{4}$ inch from the top edge of the siding. Fasten 3/8 inch from butt ends. | | | | | |

| Table 4: Individual Shakes | | | | | | |
|---|--|--|---|--------------------------|----------------------------------|-----------------------|
| Blind Fastened | | | | | | |
| Assembly Number | Allowable Design Pressure (psf) | Fastening Method | Fastener Type | Min. Framing Type | Max. Framing Spacing (in) | Min. Sheathing |
| 6 | -31 | Blind fastened to sheathing; two nails per shake | Min. 1½ inch long galvanized roofing nails, 0.120" shank diameter, 3/8" head diameter | 2 x 4 Spruce-Pine-Fir | 16 | 7/16 inch OSB |
| <p>Installation: A building paper shall be applied to the wall sheathing prior to siding installation. The siding shall be applied with a minimum 10 inch overlap. Position the fasteners 9 inches up from the bottom edge of the siding. Fasten 1 inch from the side edges.</p> | | | | | | |

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