

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-16

Effective April 1, 2004
Revised March 1, 2005

*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 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.

Fiber Cement Lap and Panel 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, 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. At the customer's request, a primer 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 lap and panel siding products have been accepted:

Lap Siding is nominal $\frac{5}{16}$ thick. The siding is available in $6\frac{1}{4}$, $7\frac{1}{4}$, $8\frac{1}{4}$, $9\frac{1}{4}$, and 12 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.

Panel Siding is nominal $\frac{5}{16}$ inch thick and has square edges. The siding is 4 feet wide and comes in lengths of 7, 8, 9, and 10 feet. The following textures are available: textured 8 inch o.c. cedar panel siding; textured stucco panel siding; textured plain (no grooves) cedar panel siding; and smooth panel siding.

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 $1\frac{1}{4}$ inch. If the siding is applied directly to the wall studs, then building paper shall be applied to the studs prior to installing the siding.

If the wall studs are spaced 24 inches on center, then the lap siding shall be installed over structural sheathing.

Lap siding shall not be used to resist lateral loads.

Wind Resistant Assemblies:

Assembly No. 1

Lap Siding – Face Nailed

The following products are applicable: $6\frac{1}{4}$ and $7\frac{1}{4}$ ” wide profiles

Design pressure: -52 psf

Installation: Wall studs shall be minimum No. 2 grade SPF lumber. Wall bracing shall be installed as required. The lap siding shall fastened to each wall stud with minimum 6d galvanized box nails. 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 bottom edge of the siding in order to penetrate both courses. Fasten $\frac{3}{8}$ inch from butt ends.

Assembly No. 2

Lap Siding – Face Nailed

The following products are applicable: $6\frac{1}{4}$, $7\frac{1}{4}$, $8\frac{1}{4}$, and $9\frac{1}{4}$ ” wide profiles

Design pressure: -114 psf

Installation: Wall studs shall be minimum No. 1 grade Southern Pine lumber. Wall studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. The lap siding shall fastened to each wall stud with minimum 8d galvanized box nails. 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 bottom edge of the siding in order to penetrate both courses. Fasten $\frac{3}{8}$ inch from butt ends.

Assembly No. 3

Lap Siding – Face Nailed

The following products are applicable: $6\frac{1}{4}$, $7\frac{1}{4}$, $8\frac{1}{4}$, $9\frac{1}{4}$, and 12” wide profiles

Design pressure: -74 psf

Assembly No. 3 (Continued)

Installation: Wall studs shall be minimum No. 1 grade Southern Pine lumber. Wall bracing shall be installed as required. The lap siding shall fastened to each wall stud with minimum 8d galvanized box nails. 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 bottom edge of the siding in order to penetrate both courses. Fasten $\frac{3}{8}$ inch from butt ends.

Assembly No. 4

Lap Siding – Blind Nailed

The following products are applicable: $6\frac{1}{4}$ and $7\frac{1}{4}$ ” wide profiles

Design pressure: -48 psf

Installation: Wall studs shall be minimum No. 2 grade SPF lumber. The wall studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. The lap siding shall fastened to each wall stud with minimum $1\frac{3}{4}$ x 0.120 inch galvanized roofing nails. 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 bottom edge of the siding in order to penetrate both courses. Fasten $\frac{3}{8}$ inch from butt ends.

Assembly No. 5

Lap Siding – Blind Nailed

The following products are applicable: $6\frac{1}{4}$, $7\frac{1}{4}$, $8\frac{1}{4}$, and $9\frac{1}{4}$ ” wide profiles

Design pressure: -35 psf

Installation: Wall studs shall be minimum No. 2 grade SPF lumber. The wall studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. The lap siding shall fastened to each wall stud with 6d galvanized box nails. 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 bottom edge of the siding in order to penetrate both courses. Fasten $\frac{3}{8}$ inch from butt ends.

Assembly No. 6

Panel Siding

Fasteners: 8d box nails; 4” on center along panel edges; 8” on center along interior framing

Design pressure: -68 psf

Racking load resistance: 643 plf

Installation (general): Wall studs shall be minimum No. 1 grade Southern Pine lumber. The studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. The panels shall be applied with the long dimension in the vertical direction.

Installation (when used as lateral bracing): The panels shall be installed directly to the wall studs. All panel edges shall be fastened to wall framing. Each siding panel used as wall bracing shall be a minimum of 48 inches in width. The siding shall be fastened to the upper member of the double top plate and to the sole plate.

Assembly No. 7

Panel Siding

Fasteners: 6d box nails; 4" on center along panel edges; 8" on center along interior framing

Design pressure: -60 psf

Racking load resistance: 421 plf

Installation (general): Wall studs shall be minimum stud or No. 3 grade SPF lumber. The studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. The panels shall be applied with the long dimension in the vertical direction.

Installation (when used as lateral bracing): The panels shall be installed directly to the wall studs. All panel edges shall be fastened to wall framing. Each siding panel used as wall bracing shall be a minimum of 48 inches in width. The siding shall be fastened to the upper member of the double top plate and to the sole plate.

Assembly No. 8

Lap Siding – Blind Screwed

The following products are applicable: 6 1/4", 7 1/4", 8 1/4", and 9 1/4" wide profiles

Design pressure: -38 psf

Installation: Wall studs shall be minimum 3 5/8" x 16 gauge metal studs. The wall studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. A minimum of 1/2" thick gypsum shall be applied on the interior surface of the metal wall studs. The lap siding shall fastened to each wall stud with #8 x 1 5/8" inch long self-tapping, corrosion resistant screws with a 3/8" diameter wafer head. Vertical joints shall occur over wall framing. The siding shall be applied with a minimum 1 1/4 inch overlap. Position the fasteners 3/4 inch from the top edge of the siding. Fasten 3/8 inch from butt ends.

Assembly No. 9

Lap Siding – Blind Screwed

The following products are applicable: 6 1/4", 7 1/4", 8 1/4", 9 1/4" and 12" wide profiles

Design pressure: -30 psf

Installation: Wall studs shall be minimum 3 5/8" x 20 gauge metal studs. The wall studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. A minimum of 1/2" thick gypsum shall be applied on the interior surface of the metal wall studs. The lap siding shall fastened to each wall stud with #8 x 1 5/8" inch long self-tapping, corrosion resistant screws with a 3/8" diameter wafer head. Vertical joints shall occur over wall framing. The siding shall be applied with a minimum 1 1/4 inch overlap. Position the fasteners 3/4 inch from the top edge of the siding. Fasten 3/8 inch from butt ends.

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) and the International Building Code (IBC).