

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / 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-56

Effective September 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 **February 2017**.*

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.

MaxiPlank, MaxiPanel and MultiShake fiber-reinforced cement exterior siding marketed by

MaxiTile, Inc. (Mexalit Industrial, S.A. de C.V.)
15055 Woodham Drive
Houston, Texas 77073
Telephone: (800) 451-2003

will be acceptable 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

MaxiPlank, MaxiPanel and MultiShake siding products are calcium based silicate siding board products. The siding boards consist of Portland cement, silica-sand, and treated cellulose reinforcing fibers. The siding boards are available with a smooth or woodgrain finish.

MaxiPlank:

- $\frac{5}{16}$ inch thick by 12 feet long lap siding.
- Smooth and Woodgrain finishes - $5\frac{1}{4}$ inch, $6\frac{1}{4}$ inch, $7\frac{1}{4}$ inch, $8\frac{1}{4}$ inch and $9\frac{1}{4}$ inch widths are available and included in this evaluation report, 12 inch widths are not included in this evaluation report.
- Off-stud metal joiner (required for off-stud butt joints).

MaxiPanel:

- 4 feet wide smooth or textured vertical siding.
- $\frac{5}{16}$ and $\frac{7}{16}$ inch thickness in 8, 9 and 10 foot lengths are available.
- $\frac{7}{16}$ inch thickness is available in 12 foot lengths.

MultiShake:

- Panels are $\frac{1}{4}$ inch thick, 16 inches wide by 48 inches long.
- Available in staggered, straight edge or fishscale pattern.
- Cedar or Combed texture.

INSTALLATION REQUIREMENTS

General Installation Requirements:

The siding may be installed over structural sheathing if it is nailed through the sheathing and into the framing member. If the siding is installed over non-structural sheathing (such as foam or gypsum), then the nail length must be increased by the thickness of the non-structural sheathing to maintain the same penetration into the framing member or structural sheathing.

The lap siding shall not be used as wall bracing.

Wind Resistant Assemblies:

WOOD FRAMING APPLICATIONS

MaxiPlank Lap Siding (Exposed Nailing Pattern)

Fastener: 6d common nail (0.113" shank), 2 inch long

Design pressure:

MaxiPlank Product	Allowable Design Pressure (psf)
5 ¼	-87
6 ¼	-78
7 ¼	-69
8 ¼	-60
9 ¼	-51

Installation: Wall studs shall be minimum Stud or No. 3 grade Douglas Fir-Larch dimension lumber. The wall studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. A water resistant vapor barrier shall be installed.

The planks shall be fastened to the wall framing with minimum of 6d common corrosion resistant wire nails. Nails shall be located approximately $\frac{5}{8}$ inch from the bottom of the plank. The first plank shall be installed over a $\frac{1}{4}$ inch wide weather resistant lath starter strip. Remaining courses are installed with a minimum $1\frac{1}{4}$ inch wide overlap. If the splice is made over a framing member, then nails shall be between $\frac{3}{8}$ inch and $\frac{1}{2}$ inch from the vertical splice and between $\frac{3}{4}$ inch and 1 inch from the edge of the plank. Vertical splices between framing members must be made using an off-stud metal joiner. When using an off-stud metal joiner, splices must be located at least two stud cavities from the wall corner and one stud cavity away from door or window openings. Successive splices in the same plank shall be at least 48 inches apart and splices within the same stud cavity shall be at least 24 inches apart.

MaxiPlank Lap Siding (Concealed Nailing Pattern)

Fastener: 11 gauge roofing nail (0.120" shank diameter), 2 inch long, $\frac{3}{8}$ inch head

MaxiPlank Product	Allowable Design Pressure (psf)
5 ¼	-53
6 ¼	-45
7 ¼	-38
8 ¼	-31

WOOD FRAMING APPLICATIONS (cont.)

Installation: Wall studs shall be minimum Stud or No. 3 grade Douglas Fir-Larch dimension lumber. The wall studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be installed as required. A water resistant vapor barrier shall be installed. The planks shall be fastened to the wall framing with minimum 11 gauge galvanized roofing nails with a $\frac{3}{8}$ inch diameter head. The fasteners shall be driven through the top of the plank into the framing member $\frac{3}{4}$ inch to 1 inch from the top edge of the plank and covered by the next course of planks. The first plank shall be installed over a $\frac{1}{4}$ inch wide weather resistant lath starter strip. Remaining courses are installed with a minimum $1\frac{1}{4}$ inch wide overlap. If the splice is made over a framing member, then nails shall be between $\frac{3}{8}$ inch and $\frac{1}{2}$ inch from the vertical splice and between $\frac{3}{4}$ inch and 1 inch from the edge of the plank. Vertical splices between framing members must be made using an off-stud metal joiner. When using an off-stud metal joiner, splices must be located at least two stud cavities from the wall corner and one stud cavity away from door or window openings. Successive splices in the same plank shall be at least 48 inches apart and splices within the same stud cavity shall be at least 24 inches apart.

MaxiPanel Siding

The following products are applicable: $\frac{5}{16}$ " thick MaxiPanel siding

Fasteners: 6d common nail (0.113" shank), 2 inch long

Design pressure: -68.3 psf

Racking load resistance: 139 plf

Installation (general): Wall studs shall be minimum Douglas Fir-Larch dimension lumber. The studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be applied as required. The panel shall be installed vertically with all joints breaking on framing members. The panel shall be fastened to the wall framing with fasteners spaced a maximum of 6 inches on center along all framing members. Fasteners should be spaced no closer than $\frac{3}{8}$ inch from the edge and no closer than 2 inches from the corner.

Installation (when used as wall bracing): The siding may be installed either horizontally or vertically. The siding shall not be used as wall bracing for wall heights greater than 8 feet. Each siding panel used as wall bracing shall be a minimum of 48 inches in width. The fasteners shall be spaced a maximum of 6 inches on center along panel edges and 6 inches on center along interior supports. The siding shall be fastened to the upper member of the double top plate and to the sole plate. All panel edges shall be nailed to wall framing.

MultiShake Sidewall Panels (Blind Nail and Adhesive)

The following products are applicable: $\frac{5}{16}$ " thick MaxiPanel siding

Fastener: 11 gauge roofing nail (0.120" shank diameter), 2 inch long, $\frac{3}{8}$ inch head

Adhesive: PL Premium brand polyurethane construction adhesive.

Design pressure: -48.3 psf

Installation (general): Wall studs shall be minimum Douglas Fir-Larch dimension lumber. The studs shall be spaced a maximum of 16 inches on center. The MultiShake panels shall be applied over solid wood-based structural sheathing. The fasteners are used to attach the panels to each stud. The fasteners shall be corrosion resistant and must penetrate into the studs through the underlying course, not above. The construction adhesive is applied in 1" diameter beads, 1" from the lower edge of each MultiShake shingle. Metal or wood stops must be installed at all corners. Straight edge MultiShake panels are installed with a 9 inch overlap of a maximum 7 inch wide exposure while staggered edge MultiShake panels are installed with a 10 inch overlap and a maximum of 6 inch wide exposure.

MultiShake Sidewall Panels (Blind Nail)

Fastener: 11 gauge roofing nail (0.120" shank diameter), 2 inch long, $\frac{3}{8}$ inch head

Design pressure: -38.3 psf

Installation (general): Wall studs shall be minimum Douglas Fir-Larch dimension lumber. The studs shall be spaced a maximum of 16 inches on center. The MultiShake panels shall be applied over solid wood-based structural sheathing. The fasteners are used to attach the panels to each stud. The fasteners shall be corrosion resistant and must penetrate into the studs through the underlying course, not above. Metal or wood stops must be installed at all corners. Straight edge MultiShake panels are installed with a 9 inch overlap of a maximum 7 inch wide exposure while staggered edge MultiShake panels are installed with a 10 inch overlap and a maximum of 6 inch wide exposure.

METAL FRAMING APPLICATIONS

MaxiPanel Siding

The following products are applicable: $\frac{5}{16}$ " thick MaxiPanel siding

Fasteners: No. 8 x $1\frac{1}{4}$ " long RPI C-drill screws

Design pressure: -77.5 psf

Racking load resistance: 261 plf

Installation (general): Wall studs shall be minimum No. 20 gauge $3\frac{5}{8}$ " x $1\frac{5}{8}$ " metal C-studs. The studs shall be spaced a maximum of 16 inches on center. Wall bracing shall be applied as required. The panel shall be installed vertically with all joints breaking on framing members. The panel shall be fastened to the wall framing with fasteners spaced a maximum of 6 inches on center along all framing members. Fasteners should be spaced no closer than $\frac{3}{8}$ inch from the edge and no closer than 2 inches from the corner.

Installation (when used as wall bracing): The siding may be installed either horizontally or vertically. The siding shall not be used as wall bracing for wall heights greater than 8 feet. Each siding panel used as wall bracing shall be a minimum of 48 inches in width. The fasteners shall be spaced a maximum of 6 inches on center along panel edges and 6 inches on center along interior supports. The siding shall be fastened to the upper member of the double top plate and to the sole plate. All panel edges shall be nailed to wall framing.

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.