

# 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

DR-522

Effective Date: March 1, 2012 (Revised April 1, 2013)

Reevaluation Date: **December 2013**

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.

**Ultra Aluminum Clad Wood Gardenaire Sliding Doors, Impact Resistant**, manufactured by

**Kolbe & Kolbe Millwork Co., Inc.**  
1323 South Eleventh Avenue  
Wausau, WI 54401  
(715) 842 - 5666

### General Description:

System	Description	Label Rating	Design Pressure Rating	Hallmark Certification
1	Ultra Gardenaire Sliding Door – Wide Stiles	LC-PG55 96x98 – SD SD-LC55 96x98 Missile Level D; Wind Zone 4	+55/-60	413-H-1074.00 413-H-1074.01 413-H-1074.02
2	Ultra Gardenaire Sliding Door – Wide Stiles	LC-PG45 96x98 – SD SD-LC45 96x98 Missile Level D; Wind Zone 4	+45/-45	413-H-1078.00 413-H-1078.01 413-H-1078.02
3	Ultra Gardenaire Sliding Door – Wide Stiles	SD-C65 78x98 Missile Level D; Wind Zone 4	+65/-65	413-H-1074.02 413-H-1074.04
4	Ultra Gardenaire Sliding Door – Wide Stiles	LC-PG65 78x98 – SD SD-LC65 78x98 Missile Level D; Wind Zone 4	+55/-60	413-H-1078.02 413-H-1078.03 413-H-1078.04
5	Ultra Gardenaire Sliding Door – Wide Stiles	SD-C65 96x82 Missile Level D; Wind Zone 4	+65/-65	413-H-1074.02 413-H-1074.03
6	Ultra Gardenaire Sliding Door – Wide Stiles	LC-PG65 96x82 – SD SD-LC65 96x82 Missile Level D; Wind Zone 4	+55/-60	413-H-1078.02 413-H-1078.05 413-H-1078.06

**Product Dimensions:**

System	Overall Size	Panel Size
1	96" x 98 $\frac{7}{16}$ "	Two: 48 $\frac{1}{4}$ " x 95 $\frac{5}{8}$ "
2	96" x 98 $\frac{7}{16}$ "	Two: 48 $\frac{1}{4}$ " x 95 $\frac{5}{8}$ "
3	78" x 98 $\frac{7}{16}$ "	Two: 39 $\frac{3}{16}$ " x 95 $\frac{9}{16}$ "
4	78" x 98 $\frac{7}{16}$ "	Two: 39 $\frac{3}{16}$ " x 95 $\frac{9}{16}$ "
5	96" x 82 $\frac{7}{16}$ "	Two: 48 $\frac{3}{16}$ " x 79 $\frac{9}{16}$ "
6	96" x 82 $\frac{7}{16}$ "	Two: 48 $\frac{3}{16}$ " x 79 $\frac{9}{16}$ "

**Product Identification (Certification Agency Label on Door):**

System	Certification Agency	WDMA
1-6	Manufacturer's Name or Code Name	Kolbe & Kolbe Millwork Co., Inc.
	Product Name	Ultra Gardenaire Sliding Door – Wide Stiles
	Test Standards	AAMA/WDMA/CSA 101/I.S.2/A440-05 AAMA/WDMA/CSA 101/I.S.2/A440-08 ASTM E 1886 / E 1996; Missile Level D; Wind Zone 4

**Impact Resistance:**

Impact Resistant	Requirement
Yes	These products satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the <b>Inland I</b> and <b>Seaward zone</b> . The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

**Installation:**

**Option 1:** The door assembly shall be fastened to minimum Southern Yellow Pine lumber. The door assembly is secured to the wall framing using Kolbe & Kolbe metal installation clips. The installation clips (1  $\frac{5}{8}$ " x 10  $\frac{1}{16}$ " x 0.04") are secured to the door frame side jambs, head, and sill. The clips are secured to the door frame with two (2) No. 8 x  $\frac{3}{4}$ " screws. The clips are secured to the wall framing with one (1) No. 8 x 1  $\frac{3}{4}$ " screw. The fasteners shall be long enough to penetrate a minimum of 1  $\frac{1}{2}$  inches into the wall framing. The spacing of the clips is specified in the table below.

**Installation Clip Spacing:**

System	Distance From Each Corner	Head (on center spacing)	Sill (on center spacing)	Side Jambs (on center spacing)
1-6	Head: 16" Side Jambs: 14 $\frac{1}{16}$ "	16"	See Below	14 $\frac{1}{16}$ "

**Option 2:** The door assembly shall be fastened to minimum Southern Yellow Pine lumber. The door assembly is secured to the wall framing using the door frame with minimum No. 10 x 3" screws. The fasteners shall be long enough to penetrate a minimum of 1  $\frac{1}{2}$  inches into the wall framing. The spacing of the fasteners is specified in the table below.

**Screw Fastener Spacing:**

System	Distance From Each Corner	Head (on center spacing)	Sill (on center spacing)	Side Jambs (on center spacing)
1-6	Head: 12" Side Jambs: 9 <sup>7</sup> / <sub>8</sub> "	12"	See Below	9 <sup>7</sup> / <sub>8</sub> "

**Sill:** The sill of the assembly is secured to the wall framing with minimum No. 10 x 3" screws. The spacing of the fasteners is specified in the table below.

**Sill Fastener Spacing:**

System	Distance From Each Corner	Sill (on center spacing)
1-6	4"	11"

**Mullion (Systems 1-6):** Gemini clips (1 <sup>5</sup>/<sub>8</sub> " x 10 <sup>1</sup>/<sub>16</sub> " x 0.04") are secured to the frame at the head and the sill, one on either side of the mull. The clips are secured to the frame mullion with two (2) No. 8 x <sup>3</sup>/<sub>4</sub> " screws. The clips are secured to the wall framing with one (1) No. 8 x 1 <sup>3</sup>/<sub>4</sub> " screw. The fasteners shall be long enough to penetrate a minimum of 1 <sup>1</sup>/<sub>2</sub> inches into the wall framing.

**Nailing Flange (Options 1 and 2):** The vinyl nailing flange is secured to the wall framing with minimum 12 smooth shank gauge roofing nails spaced 10 to 13 inches on center along the head and side jambs.

**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), the International Building Code (IBC), and the Texas Revisions.