

# TEXAS DEPARTMENT OF INSURANCE

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**PRODUCT EVALUATION**  
 DR-523

Effective Date: March 1, 2012 (Revised April 1, 2013)  
 Reevaluation Date: **October 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, Non-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 (psf) | Hallmark Certification         |
|--------|-------------------------------|---|------------------------------|--------------------------------|
| 1      | Ultra Gardenaire Sliding Door | LC-PG45 96 x 98 – SD<br>SD-LC45 96 x 98 | +45/-45                      | 413-H-1070.00<br>413-H-1070.01 |
| 2      | Ultra Gardenaire Sliding Door | R-PG45 96 x 82 – SD<br>SD-R45 96 x 82   | +45/-45                      | 413-H-1166.00<br>413-H-1166.01 |
| 3      | Ultra Gardenaire Sliding Door | R-PG50 190 x 82 – SD<br>SD-R50 190 x 82 | +50/-50                      | 413-H-1152.00<br>413-H-1152.01 |
| 4      | Ultra Gardenaire Sliding Door | R-PG40 78 x 98 – SD<br>SD-R40 78 x 98   | +40/-40                      | 413-H-1146.00<br>413-H-1146.01 |

**Product Dimensions:**

| System | Overall Size   | Panel Size  |
|--------|--|---|
| 1      | 96" x 98 <sup>7</sup> / <sub>16</sub> "                                | Two: 48 <sup>1</sup> / <sub>4</sub> " x 95 <sup>5</sup> / <sub>8</sub> "    |
| 2      | 96" x 82 <sup>7</sup> / <sub>16</sub> "                                | Two: 48 <sup>1</sup> / <sub>4</sub> " x 79 <sup>9</sup> / <sub>16</sub> "   |
| 3      | 190 <sup>5</sup> / <sub>16</sub> " x 82 <sup>7</sup> / <sub>16</sub> " | Four: 48 <sup>3</sup> / <sub>16</sub> " x 79 <sup>9</sup> / <sub>16</sub> " |
| 4      | 78" x 98 <sup>7</sup> / <sub>16</sub> "                                | Two: 48 <sup>3</sup> / <sub>16</sub> " x 95 <sup>9</sup> / <sub>16</sub> "  |

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

| System | Certification Agency             | WDMA   |
|--------|----------------------------------|--|
| 1      | 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<br>AAMA/WDMA/CSA 101/I.S.2/A440-08 |

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

| System |                                  |  |
|--------|----------------------------------|--|
| 2, 4   | Certification Agency             | WDMA   |
|        | Manufacturer's Name or Code Name | Kolbe & Kolbe Millwork Co., Inc.                                   |
|        | Product Name                     | Ultra Gardenaire Sliding Door – Narrow Stiles                      |
|        | Test Standards                   | AAMA/WDMA/CSA 101/I.S.2/A440-05<br>AAMA/WDMA/CSA 101/I.S.2/A440-08 |
| 3      | Certification Agency             | WDMA   |
|        | Manufacturer's Name or Code Name | Kolbe & Kolbe Millwork Co., Inc.                                   |
|        | Product Name                     | Ultra Gardenaire 4-Wide Sliding Door – Wide Stiles                 |
|        | Test Standards                   | AAMA/WDMA/CSA 101/I.S.2/A440-05<br>AAMA/WDMA/CSA 101/I.S.2/A440-08 |

**Impact Resistance:**

| Impact Resistant | Requirement  |
|------------------|--|
| No               | Impact protective system required when product is installed in areas where windborne debris protection is required |

**Installation:**

**Option 1:** The assembly shall be fastened to minimum Southern Yellow Pine lumber. The 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 frame head and side jambs. The clips are secured to the 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  $\frac{1}{2}$ " 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      | Head: 16"<br>Side Jambs: 14 $\frac{1}{16}$ "                | 16"                      | See Below                | 14 $\frac{1}{16}$ "            |
| 2      | Head: 24"<br>Side Jambs: 20 $\frac{9}{16}$ "                | None                     | See Below                | 20 $\frac{9}{16}$ "            |
| 3      | Head: 23 $\frac{3}{4}$ "<br>Side Jambs: 16 $\frac{7}{16}$ " | 23 $\frac{3}{4}$ "       | See Below                | 16 $\frac{7}{16}$ "            |
| 4      | Head: 19 $\frac{1}{2}$ "<br>Side Jambs: 16 $\frac{7}{16}$ " | None                     | See Below                | 16 $\frac{7}{16}$ "            |

**Option 2:** The assembly shall be fastened to minimum Southern Yellow Pine lumber. The assembly is secured to the wall framing using the assembly frame with minimum No. 10 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<br>(on center spacing)      | Sill<br>(on center spacing) | Side Jambs<br>(on center spacing) |
|--------|--|----------------------------------|-----------------------------|-----------------------------------|
| 1      | Head: 16"<br>Side Jambs: 9 <sup>7</sup> / <sub>8</sub> "                               | 16"                              | See Below                   | 9 <sup>7</sup> / <sub>8</sub> "   |
| 2      | Head: 16"<br>Side Jambs: 13 <sup>3</sup> / <sub>8</sub> "                              | 16"                              | See Below                   | 13 <sup>3</sup> / <sub>8</sub> "  |
| 3      | Head: 15 <sup>7</sup> / <sub>8</sub> "<br>Side Jambs: 11 <sup>3</sup> / <sub>4</sub> " | 15 <sup>7</sup> / <sub>8</sub> " | See Below                   | 11 <sup>3</sup> / <sub>4</sub> "  |
| 4      | Head: 13"<br>Side Jambs: 12 <sup>5</sup> / <sub>16</sub> "                             | 13"                              | See Below                   | 12 <sup>5</sup> / <sub>16</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<br>(on center spacing) |
|--------|---------------------------------|-----------------------------|
| 1      | 4"                              | 11"                         |
| 2      | 11"                             | 11"                         |
| 3      | 4"                              | 15"                         |
| 4      | 4 <sup>1</sup> / <sub>4</sub> " | 11"                         |

**Mullion (System 3):** 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 Fin (all units):** The nailing fin of the assembly is secured to the wall framing with minimum 12 gauge smooth shank roofing nails. The fasteners are spaced approximately 7 inches from each corner and approximately 7 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.