E.S. Windows, LLC
10653 NE Quaybridge Ct.
Miami, FL 33138

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER -Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ). This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series “ES-6500 Ultra” Aluminum Sliding Glass Doors w/ reinforcements-LMI

APPROVAL DOCUMENT: Drawing No. W14-13 Rev E, titled “ES-6500 Ultra Alum Sliding Glass Door (LMI)”, sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on OCT 03, 2018, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large Missile Impact Resistant

Limitations:
1. See Design Pressures (DP) VS reinforcements & glazing options charts in sheet 1. See Head anchors capacity charts in sheet 4 with sill anchor note, secured jambs (Elev. Sheet 2). Also see unsecured free jambs (Elev. Sheet 3) anchor capacity charts Head/sill, free jamb anchor in sheet 4 and free jamb capacity in sheet 11 w/wo jamb reinforcements. Lower DP shall control from the charts for the entire system.
2. (4) Panels or less configured options (see sheet 5), not to exceed tested frame/panel area and tested panel height.
3. See sheet 5, for fixed panel arrangement using alum clip item M-29 (top/bottom), threshold cover item #E-11 and head cover item #E-18.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, Barranquilla, Columbia and series and following statement: "Miami-Dade County Product Control Approved", noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises & renews NOA # 15-0413.08 consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Ishaq I. Chanda, P.E.

NOA No. 18-0426.08
Expiration Date: September 19, 2023
Approval Date: October 11, 2018
Page 1
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. Evidence submitted in previous files

A. DRAWINGS
   1. Manufacturer’s die drawings and sections.
   2. Drawing No. W14-13, titled “ES-6500 Ultra Alum Sliding Glass Door (LMI)”, sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated APR 09, 2015, signed and sealed by Javad Ahmad, P.E.

B. TESTS
   1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
      2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
      3) Water Resistance Test, per FBC, TAS 202-94
      4) Large Missile Impact Test per FBC, TAS 201-94
      5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
      7) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94
      Along with marked-up drawings and installation diagram of OXXO aluminum SGD, prepared by Fenestration Testing Laboratories, Test Report No. FTL- 7651 (FTL13074), dated 02/04/14, signed and sealed by Idalmis Ortega, P.E.
   2. Additional Referenced Test reports on
      1) Air Infiltration Test, per FBC, TAS 202-94
      2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
      3) Water Resistance Test, per FBC, TAS 202-94
      4) Large Missile Impact Test per FBC, TAS 201-94
      5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
      6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94
      along with marked-up drawings and installation diagram of OXXX aluminum sliding glass door, prepared by, prepared by Fenestration Testing Laboratories, Test Report No. FTL- 7130 (FTL 12093), dated 04/05/13 and FTL- 6990 (FTL 12051) dated 08/06/12, both signed and sealed by Marlin D. Brinson, P.E.

C. CALCULATIONS
   1. Anchor verification calculations and structural analysis, complying with FBC-2014, prepared by Al Farooq Corporation, dated JUL 15, 2014, NOV 12, 2014, 01/16/15 and last revised on 04/09/15, signed and sealed by Javad Ahmad, P.E.
   2. Engineering structural analysis of reinforced rails wider than 48”, prepared by Al Farooq Corporation, dated NOV 12, 2012, signed and sealed by Javad Ahmad, P.E.
   3. Glazing complies w/ ASTM-E1300-02, -04 & -09.

D. QUALITY ASSURANCE
   1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS
   Notice of Acceptance No. 11-0624.02 issued to E.I. DuPont De Nemours & Co., Inc. for their “DuPont Sentryglas ® Interlayer”, expiring on 01/14/17

Ishaq I. Chanda, P.E.
Product Control Examiner
NOA No. 18-0426.08
Expiration Date: September 19, 2023
Approval Date: October 11, 2018

E - 1
NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS
1. Statement letter of conformance to FBC 2014 (5th edition) and letter of no financial interest, prepared by Al Farooq Corporation, dated 07/15/14 and 04/09/15, signed and sealed by Javad Ahmad, P.E.
2. Lab compliance as part of the above referenced test report.
3. Statement letter of clarification via e-mail dated 01/20/15 for test report FTL-7651, issued by Fenestration testing lab, signed by Ms. Iliana Sanchez.
4. ES Windows Distribution agreement -Energia Solar, S.A. and ES Windows, LLC, dated 09/12/13, signed by Ms. Adriana Montoya, Manager and Andres Chamorro, General manager respectively on behalf of the companies.

G. OTHER
1. This NOA revises NOA # 14-0527.03, expiring SEP 19, 2018.
2. Test proposals, prepared by Al-Farooq Corp. and approved by RER dated 04/11/13 & 01/21/15.


A. DRAWINGS
1. Drawing No. W14-13 Rev E, titled “ES-6500 Ultra Alum Sliding Glass Door (LMI)”, sheets 1 through 13 of 13, prepared by Al-Farooq Corporation, dated 04-07-14 and last revised on OCT 03, 2018, signed and sealed by Javad Ahmad, P.E.

B. TEST
1. None.

C. CALCULATIONS

D. QUALITY ASSURANCE
1. Miami Dade Department of Regulatory and Economic Resources (RER).

E. MATERIAL CERTIFICATIONS
1. Notice of Acceptance No. 17-0808.02 issued to Kuraray America, Inc. (Former E.I. DuPont De Nemours) for the “Sentry Glass ® clear & white interlayer”, expiring on 07/04/23.

F. STATEMENTS
1. Statement letter of conformance to FBC 2017 (6th Edition) and “No financial interest” dated 04/23/18, prepared by the manufacturer, signed and sealed by Thomas J. Sotos, P.E.

G. OTHER
1. This NOA revises & renews NOA # 15-0413.08, expiring 06/05/23.

Ishaq I. Chanda, P.E.
Product Control Examiner
NOA No. 18-0426.08
Expiration Date: September 19, 2023
Approval Date: October 11, 2018
SERIES ES-6500 ULTRA ALUMINUM SLIDING GLASS DOOR

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2017 (6TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

120 OR 240 WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUFACTURER’S INSTRUCTIONS. SPECIFIED EMBRIDGE TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY. ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME IN CONTACT WITH OTHER DISPANNAL MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2017 FLORIDA BLDG CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, IE. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SIZING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC. CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

NOTE:

GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219
DAYLITE OPENINGS WIDTHS:
FIXED STILE-INTERLOCK = NOM. PANEL WIDTH - 7.437"
INTERLOCK-ASTRALGAL = NOM. PANEL WIDTH - 6.375"
LOCK STILE-INTERLOCK = NOM. PANEL WIDTH - 7.157"
DAYLITE OPENING HEIGHT:
PANEL HEIGHT = 7.375"
PANEL HEIGHT = DOOR FRAME HEIGHT - 1.625"
MAX. FRAME AREA OF S.G.D. SHALL NOT EXCEED FRAME AND PANEL AREA & HEIGHT OF TESTED UNIT PER FBC REQUIREMENTS.

INSTRUCTIONS:
STEP 1 DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ACE 7 STANDARD.
STEP 2 DETERMINE DOOR CAPACITY FROM TABLE ON SHEET 1 FOR THE GLASS TYPE AND REINFORCING USED.
STEP 3 USING CHARTS ON SHEET 4 SELECT HEAD ANCHOR OPTION, SILL AND JAMBS ANCHOR SHOWN IN THIS ELEVATION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.
STEP 4 THE LOWEST VALUE RESULTING FROM STEPS 2 AND 3 SHALL APPLY TO ENTIRE SYSTEM.
CLUSTER OF 8, 10, 12 OR 14 ANCHORS AT INTERLOCK/ASTRAGAL, HEAD END

CLUSTER OF 4, 5, 6 OR 7 ANCHORS AT JAMB ENDS
SEE SHEET 4

DOOR FRAME WIDTH
(4 PANEL MAX.)

MAX. FRAME AREA OF S.G.D. SHALL NOT EXCEED FRAME AND PANEL AREA & HEIGHT OF TESTED UNIT PER FBC REQUIREMENTS.

INSTRUCTIONS:
USE CHARTS AS FOLLOWS FOR UNSECURED JAMB S.G.D.

STEP 1: DETERMINE DESIGN WIND LOAD REQUIREMENT BASED ON WIND VELOCITY, BLDG. HEIGHT, WIND ZONE USING APPLICABLE ASCE 7 STANDARD.

STEP 2: DETERMINE DOOR CAPACITY FROM TABLE ON SHEET 1 FOR THE GLASS TYPE AND REINFORCING USED.

STEP 3: USING CHARTS ON SHEET 4 SELECT ANCHOR OPTION WITH DESIGN RATING MORE THAN DESIGN LOAD SPECIFIED IN STEP 1 ABOVE.

STEP 4: USING UNANCHORED FREE STANDING JAMB AND REINFORCING OPTIONS FROM SHEET 11, SELECT THE DESIGN LOAD MORE THAN THE LOAD IN STEP 1, 2 & 3.

STEP 5: THE LOWEST VALUE RESULTING FROM STEPS 2, 3 AND 4 SHALL APPLY TO ENTIRE SYSTEM.

TYPICAL ELEVATION
OXXO (UNSECURED FREE STANDING JAMBS)
### FRAME HEAD ANCHOR CAPACITY - PSF (APPLICABLE TO FREE AND SECURED JAMBS)

<table>
<thead>
<tr>
<th>ANCHOR TYPE</th>
<th>1/4&quot; MAX. SHIM</th>
<th>3/8&quot; MAX. SHIM</th>
<th>ANCHORS &quot;A&quot; &amp; &quot;B&quot;</th>
<th>1/2&quot; MAX. SHIM</th>
<th>ANCHORS &quot;C&quot;</th>
<th>5/8&quot; MAX. SHIM</th>
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</tbody>
</table>

**These tables apply to anchors at frame head.**

Note: Sill anchors in cluster of B (inclusive to all shim spaces) at interlock/astagal ends, and A at free standing jamb ends (all sizes) meet all load requirements and do not require separate tables.

See elevation in sheet 2, for doors with secured jambs with anchor spacing for all sizes. See elevation in sheet 3, for doors with unsecured jambs (free jambs). See sheet 11 for jamb design capacity with reinforcing used. See charts in sheet 1, for design load capacity for desired glass size and reinforcing used at interlocks and rails (applicable to booth secured and unsecured (free) jambs). Lower design pressure from design load charts (sheet 1), head anchor charts and sill anchor note sheet 4 or free standing jambs (sheet 11), capacity chart shall apply to entire system.
1. OPERABLE PANEL TO BE ON EXTERIOR TRACKS WITH SAFEGUARD.
2. CONFIGURATIONS SHOWN FOR ILLUSTRATION PURPOSES ONLY.
3. FOR APPLICABLE DESIGN PRESSURES SEE INSTRUCTIONS IN SHEETS 2 & 3.
4. FOR ANCHOR DETAILS SEE SHEETS 7 THROUGH 11.
5. THE FRAME AREA OF ALTERNATE SIZE UNIT SHALL NOT EXCEED FRAME & PANEL AREA AND HEIGHT OF TESTED UNIT PER FBC REQUIREMENTS.

CLIP REQUIRED AT OXX DOORS ONLY AT TOP AND BOTTOM, SECURED WITH (2) #10 SHCS PER EXTERIOR FIXED PANEL LEG (TOTAL 4 PER CLIP).

PRODUCT REVIEWED at complying with the Florida Building Code by Acceptance No. 18-0427-03 Supervision Date: 7/1/2013

Original Draft Product Covered

APPROVED CONFIGURATIONS
NOT TO EXCEED TESTED DOOR FRAME SIZE AND TESTED PANEL AREA AND HEIGHT

drawing no. W14-13
sheet 5 of 13
<table>
<thead>
<tr>
<th>ITEM #</th>
<th>PART #</th>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
<th>MATERIAL</th>
<th>MANF./SUPPLIER/REMARKS</th>
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<tr>
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<td>ES-6500-001</td>
<td>1</td>
<td>STANDARD FRAME HEAD</td>
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<td>E2</td>
<td>ES-6500-002</td>
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<td>FRAME SILL</td>
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<td>E4</td>
<td>ES-6500-004</td>
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<td>FRAME JAMB</td>
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<td>ES-6500-005</td>
<td>2</td>
<td>TOP AND BOTTOM RAL (INSUL. LAM. GLASS)</td>
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<td>E5A</td>
<td>ES-6500-024</td>
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<td>TOP AND BOTTOM RAL (LAM. GLASS)</td>
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<td>SNAP IN JAMB COVER (OPTIONAL)</td>
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<td>FIXED PANEL BOTTOM GUIDE</td>
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<td>E33</td>
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<td>AS REQ. FRAME JAMB STEEL REINFORCING</td>
<td>STEEL</td>
<td>ASTM A36, GRADE B</td>
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<td>M1</td>
<td>#10 X 1 1/2&quot;</td>
<td>3</td>
<td>CORNER FRAME ASSEMBLY SCREWS</td>
<td>ST. STEEL</td>
<td>P.H. SMS</td>
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<tr>
<td>M2</td>
<td>#10 X 1 1/2&quot;</td>
<td>4</td>
<td>CORNER PANEL ASSEMBLY SCREWS</td>
<td>ST. STEEL</td>
<td>P.H. SMS</td>
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<tr>
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<td>#6 X 2&quot;</td>
<td>2</td>
<td>LOCK FASTENERS</td>
<td>ST. STEEL</td>
<td>F.H. SMS</td>
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<tr>
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<td>HANDLE SET FASTENERS</td>
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<td>F.H. SMS</td>
</tr>
<tr>
<td>M5</td>
<td>#10 X 1/2&quot;</td>
<td>2</td>
<td>CLIP RETAINER CLIP FASTENERS</td>
<td>ST. STEEL</td>
<td>F.H. SMS</td>
</tr>
<tr>
<td>M7</td>
<td>ES-6500-03A</td>
<td>4</td>
<td>GLAZING GASKET (LAM. GLASS)</td>
<td>SILICONE</td>
<td>DUROMETER 60±5 SHORE A, EXTRUSIONS S.A.</td>
</tr>
<tr>
<td>M8</td>
<td>E-214</td>
<td>1</td>
<td>AS REQ. ASTRAGAL ADAPTER W/STRIPPING</td>
<td>VINYL</td>
<td>THERMOPLASTIC ELASTOMER</td>
</tr>
<tr>
<td>M10</td>
<td>ES-601</td>
<td>1</td>
<td>AS REQ. SPACER GASKET</td>
<td>EPDM</td>
<td>DUROMETER 80±5 SHORE A, EXTRUSIONS S.A.</td>
</tr>
<tr>
<td>M11</td>
<td>27-444</td>
<td>1</td>
<td>AS REQ. GLAZING WEDGE GASKET</td>
<td>EPDM</td>
<td>DUROMETER 75±5 SHORE A, SOLUTIONS-CAUCHO</td>
</tr>
<tr>
<td>M12</td>
<td>27-448</td>
<td>1</td>
<td>AS REQ. BOTTOM RAIL GLAZING GASKET</td>
<td>EPDM</td>
<td>DUROMETER 68±5 SHORE A, SOLUTIONS-CAUCHO</td>
</tr>
<tr>
<td>M13</td>
<td>27-449</td>
<td>1</td>
<td>AS REQ. GLAZING GASKET AT TOP RAIL AND STILES</td>
<td>EPDM</td>
<td>DUROMETER 75±5 SHORE A, SOLUTIONS-CAUCHO</td>
</tr>
<tr>
<td>M16</td>
<td>1/4&quot; X 1/2&quot;</td>
<td>1</td>
<td>AS REQ. GLAZING TAPE (INSUL. LAM. GLASS)</td>
<td>FOAM</td>
<td>-</td>
</tr>
<tr>
<td>M17</td>
<td>Q3Q6TV90</td>
<td>1</td>
<td>AS REQ. FABRIC COATED FOAM WEATHERSEAL</td>
<td>POLYETHYLENE</td>
<td>Q-LON</td>
</tr>
<tr>
<td>M18</td>
<td>Q2Q1TV90</td>
<td>1</td>
<td>AS REQ. WEATHERSEAL EXTERIOR</td>
<td>POLYETHYLENE</td>
<td>Q-LON</td>
</tr>
<tr>
<td>M19</td>
<td>Q1Q7Q7Q</td>
<td>1</td>
<td>AS REQ. INTERLOCK BUMPER</td>
<td>POLYETHYLENE</td>
<td>Q-LON</td>
</tr>
<tr>
<td>M20</td>
<td>W23Q0TV90</td>
<td>1</td>
<td>AS REQ. PILE W/STRIPPING</td>
<td>POLYPROPYLENE</td>
<td>-</td>
</tr>
<tr>
<td>M21</td>
<td>-</td>
<td>2/4</td>
<td>MOVEL PANAL</td>
<td>SIDEtails ACETAL WHEELS IN METALLIC HOUSING</td>
<td>-</td>
</tr>
<tr>
<td>M22</td>
<td>P5Q1-10Q15Q-00B</td>
<td>1</td>
<td>MORTISE LOCK KEEPER</td>
<td>-</td>
<td>INTERLOCK</td>
</tr>
<tr>
<td>M23</td>
<td>P5Q1-00Q3Q-00B</td>
<td>1</td>
<td>TWO POINT 3-FLY HOOK LOCK</td>
<td>-</td>
<td>INTERLOCK</td>
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<tr>
<td>M24</td>
<td>P5Q1-00Q18Q-00X</td>
<td>1/4</td>
<td>MOVEL HANDLE SET</td>
<td>-</td>
<td>INTERLOCK</td>
</tr>
<tr>
<td>M26</td>
<td>5Q2019</td>
<td>1</td>
<td>AS REQ. THRESHOLD W/STRIPPING</td>
<td>-</td>
<td>ABBESURY</td>
</tr>
<tr>
<td>M27</td>
<td>ES-70Q0Q-001</td>
<td>1</td>
<td>AS REQ. SILL W/STRIPPING</td>
<td>SILICONE</td>
<td>DUROMETER 60±5 SHORE A</td>
</tr>
<tr>
<td>M29</td>
<td>ALU-A-007</td>
<td>1</td>
<td>FIX PANEL ANGLE, 2&quot; X 2&quot; X 1/8&quot; X 7/8&quot; LONG</td>
<td>SILICONE</td>
<td>DUROMETER 60±5 SHORE A</td>
</tr>
<tr>
<td>M30</td>
<td>#10 X 1&quot;</td>
<td>4/2</td>
<td>FIX. PANEL ANGLE FASTENERS</td>
<td>-</td>
<td>MMM SMS</td>
</tr>
<tr>
<td>M31</td>
<td>ES-6500-051</td>
<td>1/4&quot;</td>
<td>AS REQ. SPACER FOR JAMB</td>
<td>NYLON</td>
<td>-</td>
</tr>
<tr>
<td>M33</td>
<td>ES-6500-034</td>
<td>1/2&quot;</td>
<td>AS REQ. SPACER FOR ASTRAGAL</td>
<td>NYLON</td>
<td>-</td>
</tr>
<tr>
<td>M35</td>
<td>P43Q0Q4QK</td>
<td>1</td>
<td>ADHESIVE PILE PAD (4&quot; X 1 X 1/2&quot;)</td>
<td>ULTRAFAB</td>
<td>-</td>
</tr>
<tr>
<td>M36</td>
<td>-</td>
<td>1</td>
<td>AS REQ. TOP &amp; BOTTOM RAIL REINFORCING</td>
<td>6063-T6</td>
<td>1/4&quot; X 1 1/2&quot; X FULL LENGTH</td>
</tr>
<tr>
<td>M37</td>
<td>#10 X 1 1/4&quot;</td>
<td>2</td>
<td>Reinforcing Bar Fasteners, At 6&quot; From Each End</td>
<td>ST. STEEL</td>
<td>F.H. SMS</td>
</tr>
</tbody>
</table>
TYPICAL ANCHORS IN STAGGERED CLUSTERS AT INTERLOCK/ASTRALG. HEAD END & IN PAIRS AT FRAME SEE ELEV. ON SHEETS 2 & 3 FOR SPACING AND SHEET 4 FOR QUANTITY

PROPERLY SECURED 1-BY OR 2-BY WOOD BUCK (SEE NOTE SHEET 1)

TYPICAL ANCHORS IN STAGGERED CLUSTERS AT INTERLOCK/ASTRALG. HEAD END & IN PAIRS AT FRAME SEE ELEV. ON SHEETS 2 & 3 FOR SPACING AND SHEET 4 FOR QUANTITY

 SEALANT:
 ALL JOINTS AND FRAME CONNECTIONS SEALED WITH WHITE/ALUMINUM COLORED SILICONE.

 WEEPHOLES:
 W = 1/4" X 3" LONG WEEPHOLES AT 4 1/2" FROM EACH END.
TYPICAL ANCHORS: SEE ELEV. FOR SPACING

--- AT HEAD ---

TYPE 'A'—

5/16" DIA. ULTRACON BY 'ELOCO' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHM)

INTO WOOD STRUCTURES
1-7/8" MIN. PENETRATION INTO WOOD
THRU 1BY OR 2BY WOOD BUCKS INTO CONCRETE
1-1/2" MIN. EMBED INTO CONCRETE

--- AT SILL ---

TYPE 'B'—

5/16" DIA. ULTRACON BY 'ELOCO' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHM)

DIRECTLY INTO CONCRETE
1-1/2" MIN. EMBED

--- AT JAMBS ---

TYPE 'B ALT.'—

1/4" DIA. ULTRACON BY 'ELOCO' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHM)

DIRECTLY INTO CONCRETE
1-3/4" MIN. EMBED

--- INTO METAL STRUCTURES ---

5/16" DIA. ULTRACON BY 'ELOCO' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHM)

THRU 1BY OR 2BY WOOD BUCKS OR FILLED BLOCKS
1-1/2" MIN. EMBED INTO CONCRETE OR BLOCKS

5/16" DIA. ULTRACON BY 'ELOCO' (Fu=177 KSI, Fy=155 KSI) (1/2" MAX. SHM)

DIRECTLY INTO OR GRouted FILLED BLOCKS
1-1/2" MIN. EMBED

5/16" DIA. TEKS OR SELF DRILLING SCREWS (GRADE 5 CRS) (3/8" MAX. SHM)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS
AND INTO METAL STRUCTURES
3 THREADS MIN. TO EXTEND BEYOND METAL THICKNESS
ALUMINUM: 1/8" THK. MIN. (0.063-0.075 MIN.)
STEEL: 1/8" THK. MIN. (Fu = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES

INTO CONCRETE = 2-1/2" MIN. (1/4" ANCHORS)
INTO CONC. OR BLOCKS = 3-1/8" MIN. (5/16" ANCHORS)
INTO WOOD STRUCTURE = 1-1/4" MIN.
INTO METAL STRUCTURE = 3/4" MIN.
WOOD AT HEAD OR JAMBS SS = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS Fc = 3000 PSI MIN.
C-90 GRouted FILLED BLOCK AT JAMBS Fc' = 2000 PSI MIN.

1BY OR 2BY WOOD BUCKS AND METAL STRUCTURE NOT BY E.S. WINDOWS
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM
AND TRANSFER THEM TO THE BUILDING STRUCTURE.
# Free Standing Jamb

## Design Load Capacity - Psf

<table>
<thead>
<tr>
<th>Height Panel With Inches</th>
<th>Door Frame Height Inches</th>
<th>Without Reinforcement</th>
<th>With Alum Reinforcement</th>
<th>With Steel Reinforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>126&quot;</td>
<td>113.6</td>
<td>113.6</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>132&quot;</td>
<td>88.6</td>
<td>88.6</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>97.9</td>
<td>97.9</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>91.5</td>
<td>91.5</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>54</td>
<td>81.5</td>
<td>81.5</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>75.8</td>
<td>75.8</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>42</td>
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<td>72.2</td>
<td>120.0</td>
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<tr>
<td></td>
<td>48</td>
<td>67.3</td>
<td>67.3</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>52</td>
<td>67.3</td>
<td>67.3</td>
<td>120.0</td>
</tr>
</tbody>
</table>

**Note:**

Data in this sheet may be used to qualify specified joint sealant to be used at unanchored free standing jambs. Please refer to sealant manufacturer's data and application manual for compatibility of sealant to substrate & door material finish and compliance for warranty (under separate review).

Conditions or other sealants not covered in this sheet to be engineered separately and to be reviewed by A.H.J.

*This chart to be used with Dc chart in Sheet 1, with elevation sheet 3 and anchor capacity chart sheet 4. Lower design pressure shall control entire assembly.*

## Free Standing Jamb

**Operable Side**

**Fixed Side**

- Silicone Dowel, 7/16" Depth = 3/8" Min. (See chart for capacity)
- Door width

**Free Standing Jamb**

- 5/16" Min. 1/2" Max.
- Free Standing Jamb

**Steel Reinforcement**

Reinforcement clip required at free standing jamb with steel reinforcing only.