

R W Building Consultants, Inc.

Consulting and Engineering Services for the Building Industry

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Florida Board of Professional Engineers Certificate of Authorization No. 9813

Product Evaluation Report

Report No.: FL 1688.1
Date: December 14, 2005
Product Category: Exterior Doors
Product sub-category: Swinging
Product Name: ODL / Western Reflections
Impact Glazing W/ Therma-Tru 8'0 Fiberglass Door
Manufacturer: ODL, Inc.
215 East Roosevelt Avenue
Zeeland, MI 49484
Phone: 616.772.9111 Facsimile: 616.772.9110

Scope: This is a Product Evaluation report issued by R W Building Consultants, Inc. and Wendell W. Haney, P.E. (System ID # 1993) for ODL, Inc. based on Rule Chapter No. 9B-72.070, Method 1d of the State of Florida Product Approval, Department of Community Affairs-Florida Building Commission.

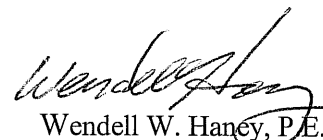
RW Building Consultants and Wendell W. Haney, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

This product has been evaluated for use in locations adhering to the Florida Building Code (2004 Edition) and where pressure requirements, as determined by Chapter 16 of The Florida Building Code, do not exceed the following design pressures:

Design Pressure Rating:

Maximum Design Pressure Rating Positive 40.0 PSF Negative 40.0 PSF
(See Limitations for size restrictions)

See Drawing No.: FL-160, prepared by R W Building Consultants, Inc. and signed and sealed by Wendell W. Haney, P.E. (FL # 54158) for specific use parameters.


Wendell W. Haney, P.E.
FL No. 54158
December 14, 2005

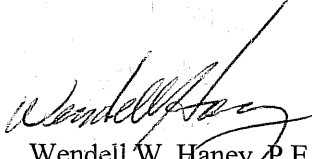
Limitations

1. The ODL/Western Reflections Impact Glazing W/ Therma-Tru 8'0" Fiberglass Door has been evaluated and meets the requirements for use within the State of Florida excluding the "High Velocity Hurricane Zone".
2. When used in areas requiring windborne debris protection this product complies with Section 1609.1.4 of the Florida Building Code as an impact resistant product and does not require the use of an external impact resistant covering.
3. Size Limitations:

<u>Configurations</u>		<u>MAX. Frame Width</u>	<u>MAX. Frame Height</u>
Single	X	37.5"	98.0"
Single w/ Sidelite	OX or XO	53.0"	98.0"
Single w/ Sidelites	OXO	68.5"	98.0"
Double	XX	74.0"	98.0"
Double w/ Sidelites	OXXO	149.0"	98.0"

4. The Design Pressure Rating for the various size units are as follows:

Design Pressure (PSF)				
Description	In-Swing		Out-Swing	
	Positive	Negative	Positive	Negative
Single Doors with and without Sidelites	+40.00	-40.00	+40.00	-40.00
Double Doors with and without Sidelites with Steel Strike Applied to the threshold at Astragal	+32.00	-32.00	+32.00	-32.00


 Wendell W. Haney, P.E.
 FL No. 54158
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Supporting Documents

A Drawing

1. Drawing No. FL-160 titled ODL/Western Reflections ODL/Western Reflections OS/IS 8'0 Impact Glass Door single or Double w/ or w/o Sidelites Utilizing the Therma-Tru Fiberglass Door, prepared by R W Building Consultants, Inc. (Florida Board of Professional Engineers Certificate of Authorization No. 9813), signed and sealed by Wendell W. Haney, P.E.

B Tests Performed

1. Testing per *ASTM E330-97, ASTM E283-91, ASTM E1886-02 and ASTM E1996-02 as performed by ETC Laboratories and reported in test report number 04-944-14760.0 dated January 30, 2004 signed by David Kehrl, President.
2. Testing per ASTM E1886-02 and ASTM E1996-02, as performed by Testing Evaluation Laboratories, Inc. reported in test report number TEL-05-1008-1, dated October 08, 2005, signed by Wendell W. Haney, P.E.

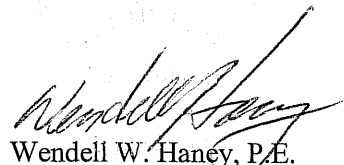
*ASTM E 330-02 is referenced in the Florida Building Code; test report 04-944-14760.0 list the loads applied to the test specimens as ½ test load positive and negative, design load positive and negative, test load positive and negative, which for the intent of the Florida Building Code meets ASTM E 330-02.

C Calculations

1. Product anchoring is in accordance with manufacturer's published recommendations as substantiated by testing performed by ETC Laboratories and reported in test report number 09-944-14760.0 and TEL-05-1008-1.
2. Buck anchor analysis for loading conditions, prepared, signed and sealed by Wendell W. Haney, P.E.
3. Glass Load Resistance Report ASTM E1300-02 prepared by Wendell W. Haney, P.E.

D Other

1. Certificate of Participation issued by National Accreditation & Management Institute, Inc., certifying that ODL, Inc., is manufacturing products within a quality assurance program.



Wendell W. Haney, P.E.

FL No. 54158

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