

TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION

Effective August 1, 2013

LVR-06

*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 shall be subject to reevaluation **August 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.

Model ESS-502D and K605MD Aluminum Louvers, Individual, Impact Resistant, as manufactured by

Greenheck Fan Corporation
400 Ross Avenue
Schofield, WI 54476
(715) 359-6171

and

The Airolite Company, LLC
525 Western Rd.
Schofield, WI 54476
(715) 241-6112

will be accepted for use 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

General: The louvers and blades are constructed of 0.081" thick, 6063-T5 extruded aluminum. The louver blades are spaced approximately 2" o.c. Individual louvers are available in a minimum size of 8" x 7" and a maximum single section size of 72" x 144" or 144" x 72". The louvers may be installed side by side for unlimited width as long as the individual section size is not exceeded. A mullion is required if the width and height exceed 72". The louvers may be stacked vertically as long as a suitable structural support is designed and installed to support all loads transferred from the louver. The louvers referenced in this report are impact resistant.

The models included in this evaluation are as follows:

ESS-502D (Greenheck Fan Corporation)
K605MD (The Airolite Company)

LIMITATIONS

Design Drawings: The louvers shall be installed in accordance with Greenheck drawing ESS-502D, sheets 1-16 of 16, dated April 27, 2009, signed and sealed by L. David Rice, P.E. on May 20, 2013 and Airolite drawing K605MD, sheets 1-16 of 16, dated May 27, 2009, signed and sealed by L. David Rice, P.E. on May 20, 2013.

Design Wind Pressure:

Assembly	Maximum Single Section Width ¹ (inches)	Maximum Single Section Height ¹ (inches)	Allowable Design Pressure Rating
ESS-502D	144	144	±110 psf
K605MD	144	144	±110 psf

Note: ¹ One dimension, either the height or the width, may not exceed 72" on an individual section.

Mullion: A mullion is required if the width and height exceed 72". The mullion may be constructed of minimum structural steel, 0.075" minimum thickness, or steel studs, minimum 14 gauge, in accordance with the approved drawings.

Wall Construction: The louvers may be mounted to the following types of wall framing:

- Wood (minimum Southern Pine G ≥ 0.55)
- Metal studs (minimum 14 gauge, Fy = 50ksi)
- Concrete (minimum compressive strength 2,000 psi)
- Grout filled masonry units (CMU), (C-90, Grade N, Type 1; 2,000 psi grout)
- Structural steel (minimum 0.075" thick, Fy = 36 ksi)

Product Identification: Each unit must bear a permanent label containing the manufacturer's name, series number of louver, and applicable standards: TAS 201/202/203-94.

Impact Resistance: These louver assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The louver assemblies passed an impact standard equivalent to Missile Level D specified in ASTM E 1996-04. The louvers may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These louver assemblies will not need to be protected with an impact protective system.

Acceptance of Smaller Assemblies: Louver assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General Installation Requirements: All requirements specified in the International Residential Code (IRC) and the International Building Code (IBC) must be satisfied and manufacturer's installation instructions followed, unless otherwise specified by this product evaluation.

Anchorage Method: The aluminum louvers shall be installed in accordance with the approved drawings.

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.