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PRODUCT EVALUATION

Ecolite Single Hung Window

REPORT TO:

**PROVIA LLC
2150 STATE ROUTE 39
SUGARCREEK, OHIO 44681**

REPORT NUMBER: NCTL-110-25091-2
REPORT DATE: 04/12/22

Joseph A. Reed, PE
FL PE 58920
FL REG 33474



Subject: Ecolite Single Hung Window
ProVia LLC
2150 State Route 39
Sugar creek, Ohio 44681

Scope: Product Evaluation per Chapter 61G20-3.005(1)(d) Florida Administrative Code, Evaluation report from a Florida Registered Architect or a Licensed Florida Professional Engineer.

Building Code Compliance: This product has demonstrated compliance with the Florida Building Code, Building, 7th Edition (2020):
§1709.5 Exterior window and door assemblies
§2404 Wind, Snow, Seismic and Dead Loads on Glass

Performance Standards: AAMA/WDMA/CSA 101/I.S.2/A440-17
ASTM E1300-12ae1

Product Description: Window Frame Extruded Rigid Poly (Vinyl Chloride) (PVC)
Miter-cut corners and thermally welded.

Window Sash Extruded Rigid Poly (Vinyl Chloride) (PVC)
Miter-cut corners and thermally welded.

Fixed Rail Extruded Rigid Poly (Vinyl Chloride) (PVC)
Coped and butted to jamb. Secured with molded shear block. Shear block was secured to the reinforcement with one (1) #8x1" screw and to the jamb with two (2) #6x1" screws at each end.

Glazing Validate Glazing with ASTM E1300

Glazing Type	Glazing Construction
G1 (Insulating Glass)	3/32" Annealed to Exterior 3/32" Annealed to Interior

Bottom sash was exterior glazed against double-sided adhesive tape and secured with rigid vinyl glazing bead. 1/2" bite.

Top fixed lite was interior glazed against double-sided adhesive tape and secured with rigid vinyl glazing bead. 1/2" bite.

Anchorage Various anchorages (see *Installation*)

For additional product information see Appendix A.



- Installation:**
- Wood: Minimum Spruce-Pine-Fir 2x (G = 0.42).
#8 Wood Screw (Shall conform to ANSI/ASME B18.6.1 and be corrosion resistant).
 - Steel Stud: Minimum 18 gauge (0.043" thick) 33 KSI steel stud.
#10-16 TEKS screw (see ICC ESR 1976).
 - Aluminum: Minimum 0.093" thick 6063-T5 aluminum.
#10-16 TEKS screw (see ICC ESR 1976).
 - Concrete: Minimum $f_c = 3,000$ psi.
3/16" ITW Tapcon with Advanced Threadform Technology
Concrete and Masonry Anchors (see NOA 21-0201.06).
 - Concrete Masonry: ASTM C90, minimum $f_m = 1,500$ psi.
3/16" ITW Tapcon with Advanced Threadform Technology
Concrete and Masonry Anchors (see NOA 21-0201.06).

Installation shall follow manufacturer's instructions, product approvals and the referenced installation drawings.

Limitations of Use:

Product	Maximum Design Pressures	Impact Resistance	Maximum Overall Size	Maximum Glazing Size
<i>Ecolite Single Hung</i> (Glazing Type G1) (Sill S-VE-8673)	+35/-35 psf	N/A	40" x 66"	35" x 30"
<i>Ecolite Single Hung</i> (Glazing Type G1) (Sill S-VE-8672)	+50/-50 psf	N/A	40" x 66"	35" x 30"

Products have not been tested for windborne debris resistance and will require protective devices (i.e., shutters) if installed in a windborne debris region.

Products are not approved for use in High Velocity Hurricane Zone (HVHZ).



Supporting Evidence: Test Report N2642.01-501-47 (AAMA/WDMA/CSA 101/I.S.2/A440-17)
Revision -, 04/06/22
Intertek. Springdale, Pennsylvania (TST7110)

Calculation Report NCTL-110-25091-1
Revision -, 04/12/22
Joseph A. Reed, PE (FL PE 58920)

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Reference Drawings: *Ecolite Single Hung*. Drawing 25091-1-1001. Revision -, 04/12/22.

Revision Log

<u>Identification</u>	<u>Date</u>	<u>Page & Revision</u>
Original Issue	04/12/22	Not Applicable



Appendix A – Detailed Product Description

Glazing Details: Bottom sash was exterior glazed against double-sided adhesive tape and secured with rigid vinyl glazing bead. 1/2" bite.

Top fixed lite was interior glazed against double-sided adhesive tape and secured with rigid vinyl glazing bead. 1/2" bite.

Weatherstripping: 0.187"x0.290" center fin w/pile.	One row at lock rail.
0.187"x0.290" center fin w/pile.	Two rows at stiles.
0.330" dia. foam filled bulb.	One row at bottom rail
7/8" x 78" x 0.400" dust pad.	Each lock rail/sash stile intersection

Frame Construction: Extruded Rigid Poly (Vinyl Chloride) (PVC). Miter-cut corners and thermally welded.

Fixed Rail Construction: Extruded Rigid Poly (Vinyl Chloride) (PVC). Coped and butted to jamb. Secured with molded shear block. Shear block was secured to the reinforcement with one (1) #8x1" screw and to the jamb with two (2) #6x1" screws at each end.

Sash Construction: Extruded Rigid Poly (Vinyl Chloride) (PVC). Miter-cut corners and thermally welded.

Drainage: Sloped sill
1"x1/8" weep slot at sill; one each end
1/4" weep notch at outer screen track; one each end
7/8" weep notch at inner screen track; one each end
3/8"x3/16" weep slot; fixed rail; one each end.
1/4" x9/16" weep slot; bottom rail; one each end

Hardware: Cam lock and keeper.	Two (2) total	Lock rail, 6" from each end.
Constant force balance.	Two (2) total	One each jamb.
Pivot bar	Two (2) total	Bottom rail; one each end.
Tilt latch	Two (2) total	Lock rail; one each end

Reinforcement: Fixed rail: Extruded aluminum
Lock rail: Extruded aluminum
Bottom Rail: Extruded Aluminum
Sash Stiles: Extruded Aluminum