## L. Roberto Lomas P.E.

# **Engineering Evaluation Report**

400 S Palm Ave Indialantic, FL 32903 434-688-0609 rllomas@lrlomaspe.com

Report No.: 515088

Manufacturer: Therma-Tru Corporation

1750 Indian Wood Circle **Maumee, OH 43537** 

**Product Line:** Series V-3 Impact FGW 3.5 x 9.5 Panel Standard Out-Fold Aluminum

#### Compliance:

The above mentioned product has been evaluated for compliance with the requirements of the Florida Department of Business and Professional Regulation for Statewide Acceptance per Rule 61G20-3.005 method 1(d). The product listed herein complies with requirements of the Florida Building Code.

### Supporting Technical Documentation:

1. Approval document: drawing number 08-03865, prepared, signed and sealed by Luis Roberto Lomas P.E.

Test report No.: NCTL-110-15327-1 signed and sealed by Robert H Zeiders P.E.

National Certified Testing Laboratories, York, PA

TAS 201/TAS 203 Large Missile Impact Test, Level D, Wind Zone 4 Cyclic Pressure loading ±80.0psf design pressure

TAS 202 Uniform Static Air Pressure, ±70.0psf design pressure, 12.0psf water penetration.

Test report No.: NCTL 110-15505-1 signed and sealed by Robert H Zeiders P.E National Certified Testing Laboratories, York, PA

Large Missile Impact Test, Level D, Wind Zone 4 TAS 201/TAS 203 Cyclic Pressure loading ±80.0psf design pressure

TAS 202 Uniform Static Air Pressure, ±55.0psf design pressure, 9.0psf water penetration.

I-Strut Testing:

Test report ETC-07-1043-19094.0, signed and sealed by Joseph Labora Doldan P.E. ETC Laboratories, Rochester, NY, ASTM D638

Tensile strength of unexposed samples

10,390psi Tensile strength of 4500 hour Xenon Arc exposed samples 11,004psi

Test report ETC-08-1043-20974.0 signed and sealed by Joseph Labora Doldan P.E. ETC Laboratories, Rochester, NY, ASTM D1929 Self ignition 740°F

Test report ATI 61261.01-106-18 signed and sealed by Joseph Reed P.E.

Architectural Testing Inc. York, PA

ASTM D635 Rate of burning classification: CC1 (23.9mm/min, .94in/min)

ASTM D2843 Smoke density rating: 2.1

5. EPDM testina:

Test report No.: PN 105435 Signed by Jim Drummond

Akron Rubber Development Laboratory, Inc. Akron OH an A2LA accredited testing laboratory

Certificate numbers 255.01 and 255.02

**ASTM D2240** Hardness, Shore A: 71 durometer

ASTM D395 Compression set, 22 h @ 100 C, max. %:

**ASTM D1149** Ozone resistance, 100 MPa, 100 h @ 40 C, 20% elongation: No cracks

Tensile strength: 1410 psi ASTM D412

ASTM D412 Elongation @ rupture, min. %: 266 ASTM D573 Heat aging, 70 h @ 100 C: +4

ASTM D573 Hardness increase, max. duro. Points

Change in tensile strength, max. %: +8%

Change in elongation, max. %: -21%

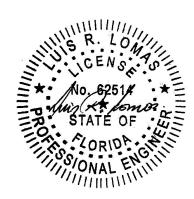
ASTM D624 Tear strength, min: 126.2 lbf/in

ASTM D746 Brittleness temperature, 3 minutes @ -40 C: No cracks

ASTM D925 Non-staining: No migratory stain

Flame propagation: No limit **ASTM C1166** 

6. Anchor calculations with comparative analysis, report number 515088-1, prepared, signed and sealed by Luis Roberto Lomas P.E.



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### Limitations and Conditions of use:

Maximum design pressure: Refer to approval drawing.

Approved configurations:
Unlimited number of panels in unlimited configurations are approved as long as

individual panel area does not exceed 33.3 ft<sup>2</sup>, and uses vertical conditions as shown

in approved document.

Units must be glazed per ASTM E1300, according with glazing details in approval drawing.

This product is rated to be used in the HVHZ.

This product is impact resistant and does not require impact protection in wind borne debris regions.

• Frame material to be Extruded Aluminum 6063-T6

#### Installation:

Units must be installed in accordance with manufacturer's installation instructions and approval document, 08-03865.

#### Certification of Independence:

Please note that I do not have nor will acquire a financial interest in any company manufacturing or distributing the product(s) for which this report is being issued. Also, I do not have nor will acquire a financial interest in any other entity involved in the approval process of the listed product(s).



Luis R. Lomas, P.E. FL No.: 62514 12/07/2022