L. Roberto Lomas P.E.

Engineering Evaluation Report

1432 Woodford Rd. Lewisville, NC 27023 336-945-9695 rllomas@lrlomaspe.com

Report No.: 512123B

Manufacturer: Altech Panel Systems, LLC

1 Johnson Street, Suite 118 Cartersville, GA 30120

Product Line: Altech Accu-Trac DS Wall Panel System

Compliance:

1 of 2

The above mentioned product has been evaluated for compliance with the requirements of the Florida Department of Community Affairs for Statewide Acceptance per Rule 9N-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 08-01497 revision B, titled Composite Altech Accu-Trac DS Wall Panel System, prepared, signed and sealed by Luis Roberto Lomas P.E.

2. Report No.: B4876.01-109-18 signed and sealed by Michael Stremmel P.E.

Architectural Testing Inc. York, PA

TAS 201-94 Large Missile Impact Test, Level D, Wind Zone 4

TAS 202 -94 Uniform Static Air Pressure, ±50.13psf design pressure, 7.525psf water penetration.

TAS 203-94 Cyclic Pressure loading ±50.13psf design pressure

3. Polyethylene and Thermoplastic core testing:

Report No.: 01-8361-038 signed by Alex B. Wenzel.

Southwest Research Institute, San Antonio TX

Report No.: 01-8361-320 signed by Alex B. Wenzel

Southwest Research Institute, San Antonio TX

Report No.: 01-43055.02 signed and sealed by Joseph A. Reed P.E.

Architectural Testing Laboratories, York, PA.

Results for Polyethylene Core.

Description	Tests	<u>Results</u>
Tensile Strength	ASTM E8	7452 PSI
Punching Shear Resistance (1" dia)	ASTM D732	4637 PSI
Punching Shear Max Load	ASTM D732	1920 PSI
Bond Integrity Vertical Pull	ASTM C297	1806 PSI
Drum Peel	ASTM D1781	33.6 IN - LB/IN
Flatwise Shear	ASTM C273	1225 PSI
Rate of Burning	ASTM D635	CCI
Flame Spread Index	ASTM E84	00
Smoke Developed Index	ASTM E84	00
Self Ignition Temperature	ASTM D1929	752°F
Flash Ignition Temperature	ASTM D1929	716°F

Results for Thermoplastic Fire Retardant Core.

Description	Tests	Results
Tensile Strength	ASTM E 8	5693PSI
Punching Shear Resistance (1" dia)	ASTM D732	4637 PSI
Punching Shear Max Load	ASTM D732	2259 PSI
Bond Integrity Vertical Pull	ASTM C297	427 PSI
Drum Peel	ASTM D1781	27.6 IN-LB/IN
Flatwise Shear	ASTM C273	949 PSI
Rate of Burning	ASTM D635	
Flame Spread Index	ASTM E84	00
Smoke Developed Index	ASTM E84	10
Self Ignition Temperature	ASTM D1929	837°F
Flash Ignition Temperature	ASTM D1929	811°F

05/22/2012

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4. Anchor calculations and comparative analysis, report number 512123-1, prepared, signed and sealed by Luis Roberto Lomas P.E.

Limitations and Conditions of use:

Maximum design pressure: ±50.0psf
 Maximum Panel size: 60"x120"
 This product is rated to be used in the HVHZ.

- Qualified panel thickness: 4mm(tested) and 6mm (qualified by comparative analysis)
- Panel material to be composite with 3105-H14 aluminum faces .020" minimum thickness.
- Core material to be Polyethylene or Thermoplastic (see above test results).
- Panels maybe obtained under the following brand names and manufacturers:
 - o Alpolic by Mitsubishi
 - o Reynobond by Alcoa
 - o Alucobond by 3M
 - o Larson by Alucoil

Installation: Units must be installed in accordance with approval document, 08-01497 revision B.

Certification of Independence: Please note that I don't 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 don't 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 05/22/2012

NOTES

- 1. THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING THE HVHZ.
- 2. METAL FRAMING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING STRUCTURE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 3. SHEATHING TO BE 1/2" THICK MINIMUM AND SECURED TO FRAMING TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING STRUCTURE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 4. PANEL THICKNESS TO BE 4MM OR 6MM.
- 5. PANEL MATERIAL TO BE COMPOSITE WITH A 3105-H14 ALUMINUM FACE .020" MINIMUM THICKNESS WITH POLYETHYLENE OR THERMOPLASTIC FIRE RETARDANT CORE.
- 6. MAXIMUM PANEL SIZE: 60" X 120"
- 7. PANELS MAY BE OBTAINED FROM THE FOLLOWING MANUFACTURERS AND UNDER THESE BRAND NAMES:

ALPOLIC BY MITSUBISHI REYNOBOND BY ALCOA ALUCOBOND BY 3M LARSON BY ALUCOIL

- 8. SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS.
- 9. FOR ANCHORING INTO METAL STRUCTURE USE #12 SMS OR SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE 3 THREADS MINIMUM BEYOND STRUCTURE INTERIOR WALL. LOCATE ANCHORS 3" MAX FROM EACH END AND 16" MAX O.C. THEREAFTER AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.
- 10. FOR ANCHORING PANELS INTO EXTRUSIONS USE 1/8" 5052 ALUMINUM POP RIVETS. LOCATE RIVETS 3" MAX FROM EACH END AND 16" MAX O.C. THEREAFTER AS SHOWN IN ELEVATIONS AND INSTALLATION DETAILS.

SHEET NO.

1

3 - 4

NOTES

ELEVATION

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INSTALLATION DETAILS AND COMPONENTS

DESCRIPTION

- 11. ALL FASTENERS TO BE CORROSION RESISTANT.
- 12. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW: A. METAL STRUCTURE: GALVANIZED STEEL 16GA FY: 50KSI MIN.

REVISIONS				
REV	DESCRIPTION	DATE	APPROVED	
А	ADDED PANEL DETAIL	05/01/12	R.L.	
В	REVISED NOTES AND MATERIAL	05/21/12	R.L	

SIGNED: 05/21/2012

ALTECH PANEL SYSTEMS LLC 1 JOHNSON STREET, SUITE 118 CARTERSVILLE, GA 30120

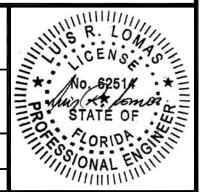
ALTECH ACCU-TRAC DS COMPOSITE WALL PANEL SYSTEM NOTES

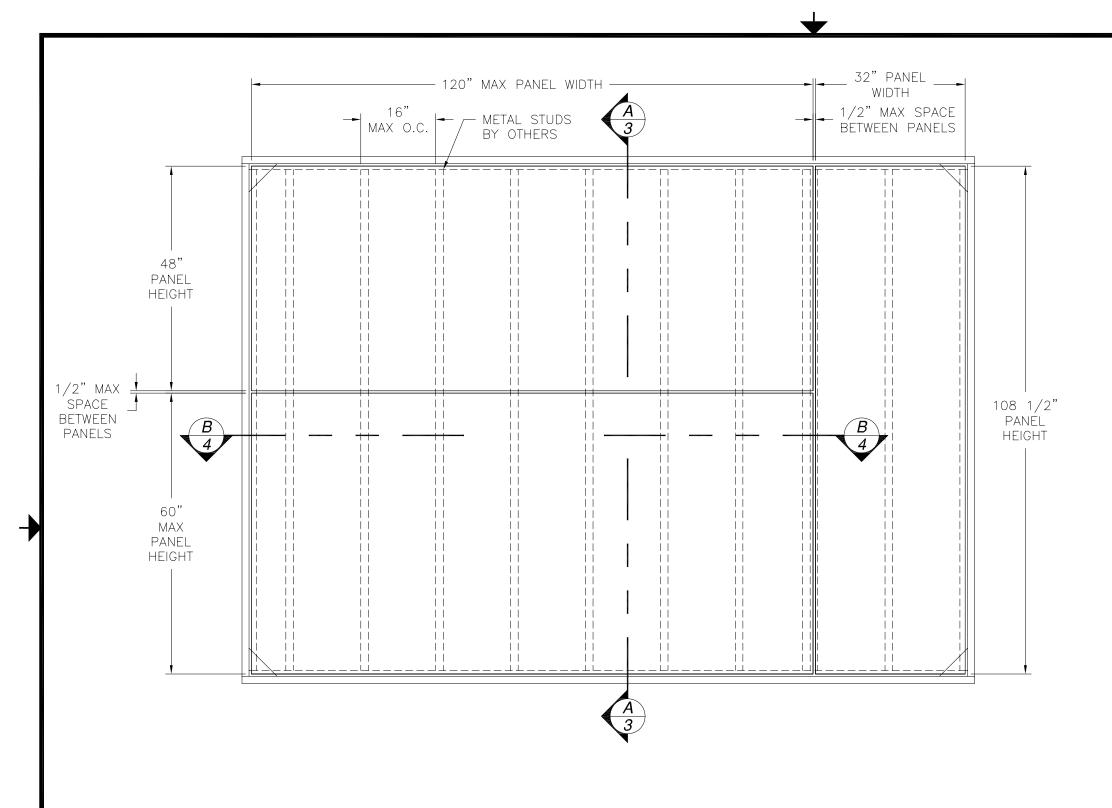
SHEET 1 OF 4

DRAWN: DWG NO. V.L. 08-01497

DATE 03/09/12

SCALE NTS





REVISIONS

REV DESCRIPTION DATE APPROVED

A ADDED PANEL DETAIL 05/01/12 R.L.

B REVISED NOTES AND MATERIAL 05/21/12 R.L

ALTECH ACCU-TRAC DS COMPOSITE WALL PANEL SYSTEM EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±50PSF	LARGE AND SMALL MISSILE IMPACT

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

ALTECH PANEL SYSTEMS LLC

1 JOHNSON STREET, SUITE 118
CARTERSVILLE, GA 30120

ALTECH ACCU-TRAC DS COMPOSITE WALL PANEL SYSTEM ELEVATION

DRAWN: DWG NO. 08-01497 B

SCALE NTS DATE 03/09/12 SHEET 2 OF 4

