



Product Approval
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SECRETARY

FL #	FL7561-R4
Application Type	Revision
Code Version	2017
Application Status	Approved
Comments	
Archived	<input type="checkbox"/>
Product Manufacturer	Elite Aluminum Corporation
Address/Phone/Email	4650 Lyons Technology Parkway Coconut Creek, FL 33073 (954) 949-3200 dk@dokimengineering.net
Authorized Signature	Do Kim dk@dokimengineering.net
Technical Representative	Bruce Peacock
Address/Phone/Email	4650 Lyons Technology Parkway Coconut Creek, FL 33073 (954) 949-3200 bpeacock@elitealuminum.com
Quality Assurance Representative	
Address/Phone/Email	
Category	Roofing
Subcategory	Products Introduced as a Result of New Technology
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Do Kim, P.E.
Florida License	PE-49497
Quality Assurance Entity	QAI Laboratories
Quality Assurance Contract Expiration Date	12/30/2022
Validated By	James L. Buckner, P.E. @ CBUCK, Inc. <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received
Certificate of Independence	FL7561_R4_COI_Cert of Independence.pdf
Referenced Standard and Year (of Standard)	
Equivalence of Product Standards Certified By	
Sections from the Code	1709.2

Product Approval Method Method 2 Option B

Date Submitted 08/15/2017

Date Validated 08/16/2017

Date Pending FBC Approval 08/20/2017

Date Approved 10/10/2017

Summary of Products

FL #	Model, Number or Name	Description
7561.1	Aluminum/Aluminum Composite Panels	3"/4"/6"x0.024"x1lb EPS Composite Panel, 3"/4"/6"x0.032x1lb EPS Composite Panel, 3"/4"/6"x0.024"x2lb EPS Composite Panel, 3"/4"/6"x0.030"x2lb EPS Composite Panel,
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: +80/-80 Other: In HVHZ, not to be used in structures considered living areas per FBC Section 1616 unless impact protection is provided. See installation drawing for nominal allowable design pressures and spans.		Installation Instructions FL7561_R4_II_2017_FBC-Elite_Aluminum_Corp-Install_Instruct.pdf Verified By: Do Kim, P.E. PE 49497 Created by Independent Third Party: Yes Evaluation Reports FL7561_R4_AE_FL_7561_Evaluation_Report-2017_FBC.pdf Created by Independent Third Party: Yes

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Product Approval Accepts:



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ELITE PANEL SPAN TABLES: 1. Net allowable loads are permitted to be multiplied by 1.67 to derive ultimate loads (psf).

3' x 0.024 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	15.47	15.76	15.03	14.03	14.03
20	13.44	13.44	12.22	10.35	10.35
30	10.78	10.78	9.41	8.60	8.60
40	8.22	8.22	7.22	6.08	6.08
50	6.17	6.17	5.41	4.37	4.37
60	4.51	4.51	3.96	3.17	3.17
70	3.31	3.31	2.96	2.37	2.37
80	2.44	2.44	2.17	1.78	1.78

3' x 0.032 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	17.50	17.50	16.31	15.36	15.36
20	14.64	14.64	13.56	12.16	12.16
30	11.57	11.57	10.21	8.36	8.36
40	8.69	8.69	7.66	6.36	6.36
50	6.52	6.52	5.81	4.76	4.76
60	4.82	4.82	4.36	3.56	3.56
70	3.56	3.56	3.16	2.66	2.66
80	2.66	2.66	2.36	1.96	1.96

3' x 0.024 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	19.33	18.95	18.31	17.66	17.66
20	16.11	15.66	14.91	14.26	14.26
30	12.99	12.56	11.76	11.06	11.06
40	10.19	9.76	9.06	8.36	8.36
50	7.76	7.36	6.76	6.06	6.06
60	5.76	5.36	4.96	4.36	4.36
70	4.26	3.96	3.66	3.16	3.16
80	3.16	2.96	2.76	2.36	2.36

3' x 0.030 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	20.11	20.08	19.42	18.81	18.81
20	16.81	16.81	16.16	15.55	15.55
30	13.51	13.51	12.86	12.25	12.25
40	10.21	10.21	9.56	8.95	8.95
50	7.91	7.91	7.26	6.65	6.65
60	6.01	6.01	5.56	4.95	4.95
70	4.51	4.51	4.26	3.65	3.65
80	3.21	3.21	3.16	2.65	2.65

4' x 0.024 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	19.00	19.00	17.17	16.53	16.53
20	15.01	15.01	13.95	13.30	13.30
30	12.50	12.50	11.38	10.73	10.73
40	10.97	10.97	10.07	9.42	9.42
50	9.52	9.52	8.74	8.09	8.09
60	8.13	8.13	7.51	6.84	6.84
70	6.82	6.82	6.59	5.97	5.97
80	5.82	5.82	5.64	5.17	5.17

4' x 0.032 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	20.50	20.50	20.11	19.24	19.24
20	16.51	16.51	16.49	15.74	15.74
30	13.01	13.01	13.24	12.24	12.24
40	10.51	10.51	10.74	9.74	9.74
50	8.51	8.51	8.74	7.74	7.74
60	6.51	6.51	6.74	6.24	6.24
70	5.01	5.01	5.24	4.74	4.74
80	3.74	3.74	4.24	3.74	3.74

4' x 0.024 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	21.97	21.97	21.32	20.97	20.97
20	18.77	18.77	18.66	18.76	18.76
30	15.57	15.57	15.21	14.85	14.85
40	12.36	12.36	11.85	11.34	11.34
50	9.16	9.16	8.59	8.08	8.08
60	6.96	6.96	6.36	5.85	5.85
70	5.16	5.16	4.76	4.34	4.34
80	3.96	3.96	3.59	3.14	3.14

4' x 0.030 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	24.17	24.17	24.17	24.17	24.17
20	20.64	20.64	20.41	20.11	20.11
30	17.57	17.57	17.50	17.50	17.50
40	14.51	14.51	14.51	14.51	14.51
50	11.45	11.45	11.45	11.45	11.45
60	8.39	8.39	8.39	8.39	8.39
70	5.33	5.33	5.33	5.33	5.33
80	3.27	3.27	3.27	3.27	3.27

6' x 0.024 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	23.00	21.84	21.47	20.85	20.85
20	19.06	18.06	18.06	18.06	18.06
30	15.13	15.13	15.13	15.13	15.13
40	11.20	11.20	11.20	11.20	11.20
50	8.27	8.27	8.27	8.27	8.27
60	5.34	5.34	5.34	5.34	5.34
70	3.41	3.41	3.41	3.41	3.41
80	2.48	2.48	2.48	2.48	2.48

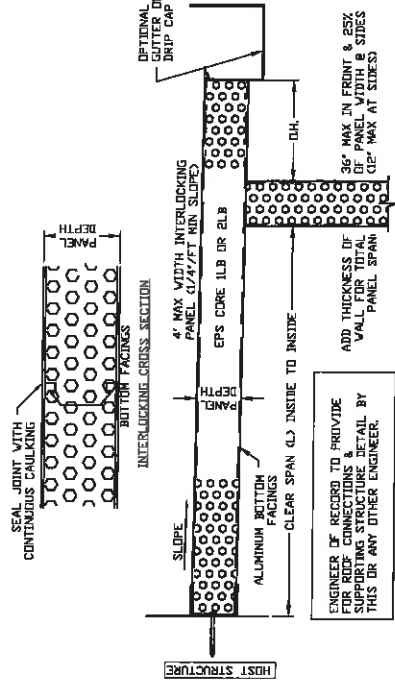
6' x 0.032 x 1 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	24.00	24.00	24.00	24.00	24.00
20	20.00	20.00	20.00	20.00	20.00
30	16.00	16.00	16.00	16.00	16.00
40	12.00	12.00	12.00	12.00	12.00
50	8.00	8.00	8.00	8.00	8.00
60	4.00	4.00	4.00	4.00	4.00
70	2.00	2.00	2.00	2.00	2.00
80	1.00	1.00	1.00	1.00	1.00

6' x 0.024 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	23.84	23.84	23.84	23.84	23.84
20	19.84	19.84	19.84	19.84	19.84
30	15.84	15.84	15.84	15.84	15.84
40	11.84	11.84	11.84	11.84	11.84
50	7.84	7.84	7.84	7.84	7.84
60	3.84	3.84	3.84	3.84	3.84
70	1.84	1.84	1.84	1.84	1.84
80	0.84	0.84	0.84	0.84	0.84

6' x 0.030 x 2 - LB EPS PANELS (ALLOWABLE CLEAR SPAN CHARTS)		MAX. ALLOWABLE SPAN (FT)			
NET ALLOWABLE LOAD (PSF)	L/80	L/120	L/180	L/240	L/240
10	24.00	24.00	24.00	24.00	24.00
20	20.00	20.00	20.00	20.00	20.00
30	16.00	16.00	16.00	16.00	16.00
40	12.00	12.00	12.00	12.00	12.00
50	8.00	8.00	8.00	8.00	8.00
60	4.00	4.00	4.00	4.00	4.00
70	2.00	2.00	2.00	2.00	2.00
80	1.00	1.00	1.00	1.00	1.00

GENERAL NOTES

- Composite panels shall be constructed using type 3003-J1154 aluminum facings, 1 or 2 PCF ASTM C-578 expanded bead EPS adhere to aluminum facings with Ashland Chemical 2020D ISO grip. Fabrication to be by Elite panel products only in accordance with approved fabrication methods.
- Elite roof panels maintain a UL 1715 (int) class 'B' (ext) rating and are IBC-501 approved.
- This specification has been designed and shall be fabricated in accordance with the requirements of the Florida Building Code 6th Edition (FBC), composite panels comply with Chapter 7 Section 720, Chapter 8 Section 803, Class A interior finish, and Chapter 26 Section 2603. All local building code amendments shall be adhered to as required.
- The designer shall determine by accepted engineering practices the allowable loads for site specific load conditions (including load combinations) using the data from the allowable load tables and spans in this approval.
- Deflection limits and allowable spans have been listed to meet FBC including the HVHZ. In HVHZ, this product shall be used in structures "not to be considered living areas" per Section 1616 unless impact resistance in accordance to the HVHZ requirements are met.
- Safety factor of 2.0 has been used to develop allowable loads and spans from testing in accordance to the Guidelines for Aluminum Structures Part 1 and conforms to the FBC Chapter 16 and 20.
- Testing has been conducted in accordance to ASTM E72-05: Straight Test of Panels for Building Construction. Reference test reports: HETI-05-1987, HETI-06-2069, HETI-06-2104, HETI-06-2066, HETI-06-2067, HETI-05-1002, HETI-06-2073, HETI-06-2074, HETI-05-1996, HETI-05-1994, HETI-05-1994, HETI-05-1991, HETI-06-2072, HETI-05-1997, HETI-05-2037, HETI-05-1989, HETI-05-1993, HETI-05-1985, HETI-05-1995, HETI-05-05-2036, HETI-05-2031, HETI-05-2038, HETI-05-2029, HETI-05-2039, HETI-05-2030, HETI-05-2041, HETI-05-2048, HETI-05-2036, HETI-05-2031, HETI-05-2038, HETI-05-2065, HETI-05-2040, HETI-05-2042.
- Linear interpolation shall be allowed for figures within the tables shown.
- Panels with fan beams shall be considered equivalent to similar panels without fan beams. Design professionals may include the strength of the fan beam to exceed shown figures as part of site-specific engineering.



EPS ROOF PANEL/SPAN DESCRIPTION

DO KIM & ASSOCIATES, LLC
CONSULTING STRUCTURAL ENGINEERS
 PO BOX 00319
 Tampa, FL 33679
 Tel: (813) 607-2665

Designation
 APPROVAL
 APPROVAL

FLORIDA STATE BOARD OF PROFESSIONAL ENGINEERS
 APPROVAL

Elite Aluminum Corporation
 Coconut Creek, FL 33073
 EPS FOAM CORE COMPOSITE PANELS
 ALUMINUM/ALUMINUM SKIN
 FLORIDA STATE BOARD OF PROFESSIONAL ENGINEERS APPROVAL

DRAWN BY: DYK
 CHECKED BY: DYK
 SCALE: AS SHOWN
 DATE: 2/10/21

DO KIM & ASSOCIATES, LLC
 PROFESSIONAL ENGINEER
 DO KIM, P.E.
 F.L.A. REG. NUMBER 38714
 DO KIM & ASSOCIATES, LLC
 PO BOX 00319
 TAMPA, FL 33679
 Tel: (813) 607-2665
 Fax: (813) 607-2666
 This firm has been approved by the Florida Board of Professional Engineers to provide engineering services in the State of Florida. The Engineer shall adhere to any applicable codes.

Drawing No. - FL-1001
 SHEET 1 OF 1

DO KIM & ASSOCIATES, LLC
CONSULTING STRUCTURAL ENGINEERS

Florida Board of Engineers Certificate of Authorization No. 26887

Product Evaluation Report

Date: August 10, 2017

Report No.: FL# 7561-R4

Product Category: Roofing

Product sub-category: Products Introduced as a Result of New Technology

Product Name: EPS Foam Core w/ Aluminum Skin Composite Panels

Manufacturer: Elite Aluminum Corporation
4650 Lyons Technology Parkway
Coconut Creek, FL 33073
Phone: 800-421-0682

Scope:

This product evaluation report issued by Do Kim and Associates, LLC and Do Kim, P.E. for Elite Aluminum Corporation is based on Florida Department of Business and Professional Regulation Rule 61G20-3.005 (2) Method 2 (b) of the State of Florida Product Approval. Re-evaluation of this product shall be required following pertinent Florida Building Code modifications or updates.

Do Kim and Associates, LLC and Do Kim, 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, 6th Edition (FBC) and where pressure and deflection requirements, as determined by Chapter 16 of the Florida Building Code, do not exceed the design pressures as shown on the approval.



This item has been electronically signed and sealed by Do Y. Kim, PE on this date using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
2017.08.15 11:27:53 -0400

Do Kim, P.E.
FL #49497

Supporting Documents

1. Code Compliance
 - a. The product assembly described herein has demonstrated compliance with the Florida Building Code 6th Edition (FBC), Section 1709.2.
2. Drawings:
 - a. Drawing No. FL-1001 titled "EPS Foam Core Composite Panels", Sheets 1 and 2 prepared by Do Kim and Associates, LLC., signed and sealed by Do Kim, P.E.
3. Testing
 - a. Testing per ASTM E72-05 as performed by Hurricane Engineering & Testing, Inc. (HETI), and reported in test report numbers HETI-05-1988, HETI-06-2104, HETI-06-2066, HETI-06-2105, HETI-06-2067, HETI-05-1002, HETI-06-2107, HETI-05-1987, HETI-06-2069, HETI-06-2070, HETI-06-2071, HETI-05-1994, HETI-05-1991, HETI-06-2072, HETI-06-2073, HETI-06-2074, HETI-05-1996, HETI-05-1989, HETI-05-1993, HETI-05-1985, HETI-05-1995, HETI-05-1990, HETI-05-1997, HETI-05-2037, HETI-05-2029, HETI-05-2039, HETI-05-2030, HETI-05-2041, HETI-05-2048, HETI-05-2036, HETI-05-2031, HETI-05-2038, HETI-05-2065, HETI-05-2040, HETI-05-2042.
4. Calculations
 - a. Panel performance engineering analysis for tested loading conditions have been prepared based on comparative and/or rational analysis, prepared, and submitted by Do Kim, P.E.
5. Other
 - a. Quality Assurance Agreement verified with Quality Auditing-Institute, LTD. (QAI Laboratories, LTD.) (FBC Organization #QUA7628).

Limitations and Condition of Use


1. Code Compliance
 - a. The product assembly described herein has demonstrated compliance with the Florida Building Code 6th Edition (FBC), Section 1709.2.
2. Large and small missile impact resistance has NOT been tested to or evaluated for in this approval. In HVHZ, this product shall be used in structures “not to be considered living areas” per Section 1616 unless impact resistance in accordance to the HVHZ requirements are met.
3. Each product listed above shall be installed in strict compliance with its respective Product Evaluation Document and site-specific engineering along with all components noted herein.
4. Use of each product shall be in strict accordance with its Product Approval Evaluation and Limitations of Use.
5. Composite panels shall be constructed using type 3003-H154 aluminum facings, 1 or 2 PCF ASTM C-578 Dyplast Products LLC brand EPS foam insulation (NOA No. 16-1129.05) adhere to aluminum facings with Ashland Chemical 2020D ISO grip. Fabrication to be by Elite panel products only in accordance with approved fabrication methods.
6. Elite roof panels maintain a UL 1715 (int) class ‘B’ (ext) rating and are NER-501 approved.
7. This specification has been designed and shall be fabricated in accordance with the requirements of the FBC, composite panels comply with Chapter 7 Section 720, Chapter 8 Section 803, Class A interior finish, and Chapter 26 Section 2603. All local building code amendments shall be adhered to as required.
8. The designer shall determine by accepted engineering practice the allowable loads for site specific load conditions (including load combinations) using the data from the allowable loads tables and spans in this approval.
9. Deflection limits and allowable spans have been listed to meet FBC including the HVHZ (L/80 for spans $\leq 12'-0''$ and L/180 for spans $> 12'-0''$).
10. All supporting host structures shall be designed to resist all superimposed loads.
11. All components which are permanently installed shall be protected against corrosion, contamination, and other such damage.
12. Size and Span Limitations:
 - a. Composite panels shall be limited to those specific panels listed in the DWG. FL-1001.
 - b. Panel spans shall not exceed those listed in the tables of DWG. FL-1001.

DO KIM & ASSOCIATES, LLC
CONSULTING STRUCTURAL ENGINEERS

Florida Board of Engineers Certificate of Authorization No. 26887

Certificate of Independence

Do Kim and Associates, LLC. and Do Kim, 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 in the accompanying Florida Product Approval


Do Kim, P.E. 04-3-06
FL #49497