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Business & Professional Regulation

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Product Approval
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OFFICE OF THE
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FL #	FL12225-R6
Application Type	Revision
Code Version	2023
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 bpeacock@elitealuminum.com
Authorized Signature	Bruce Peacock bpeacock@elitealuminum.com
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	Structural Components
Subcategory	Products Introduced as a Result of New Technology
Compliance Method	Evaluation Report from a Florida Registered Architect/Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Do Kim
Florida License	PE-49497
Quality Assurance Entity	QAI Laboratories
Quality Assurance Contract Expiration Date	12/31/2026
Validated By	James L. Buckner, P.E. @ CBUCK Engineering <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received
Certificate of Independence	FL12225_R6_COI_certificate_of_independence.pdf
Referenced Standard and Year (of Standard)	Standard TAS 201 TAS 202

Equivalence of Product Standards
Certified By

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted

08/16/2023

Date Validated

08/18/2023

Date Pending FBC Approval

08/24/2023

Date Approved

10/17/2023

Summary of Products

FL #	Model, Number or Name	Description
12225.1	3" (min.) x0.032"x2# Aluminum Composite Panel	Aluminum skin, EPS Core, composite p
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +43/-70 Other: Nominal allowable pressure listed. Wall panels shall be max. 48" wide with "H" mullion between wall panels.		Installation Instructions FL12225_R6_II_FL12225-2023 FBC- H Dwg.pdf Verified By: Do Kim,P.E. 49497 Created by Independent Third Party: Y Evaluation Reports FL12225_R6_AE_FL12225-2023 FBC-E Composite Panels.pdf Created by Independent Third Party: Y

[Back](#)

[Next](#)

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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Section 455.275(1), Florida Statutes, effective October 1, 2012, licensees licensed under Chapter 455, F.S. must provide th address if they have one. The emails provided may be used for official communication with the licensee. However email addre not wish to supply a personal address, please provide the Department with an email address which can be made available to are a licensee under Chapter 455, F.S., please click [here](#).

Product Approval Accepts:

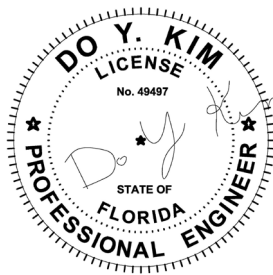


DO KIM & ASSOCIATES, LLC
CONSULTING STRUCTURAL ENGINEERS

Florida Board of Engineers Certificate of Authorization No. 26887

Certificate of Independence

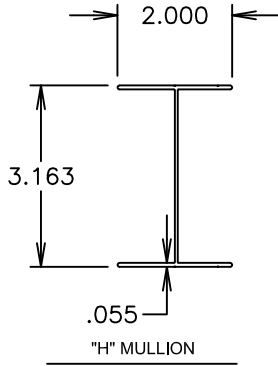
Do Kim and Associates, LLC and Do Kim, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named in the accompanying Florida Product Approval.



Do Y Kim

Digitally signed by Do Y
Kim
Date: 2023.08.01
12:09:24 -04'00'

Do Kim, P.E.
FL #49497

¹ $P_{net}=+43$ PSF CORRESPONDS $P_{ult}=+71.7$ PSF; $P_{net}=-70$ PSF CORRESPONDS $P_{ult}=-116.7$ PSF

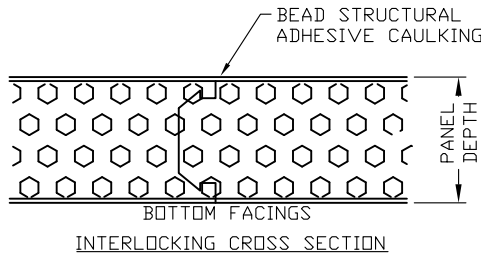
The diagram illustrates the cross-section of a wall assembly. The layers, from left to right, are:

- .032" ALUMINUM FACING
- 1/2" GYPSUM
- 1" TONGUE GROOVE GYPSUM COREBOARD
- 1/2" GYPSUM
- 1"-2 lbs. EXPANDED POLYSTERENE
- .032" ALUMINUM FACING

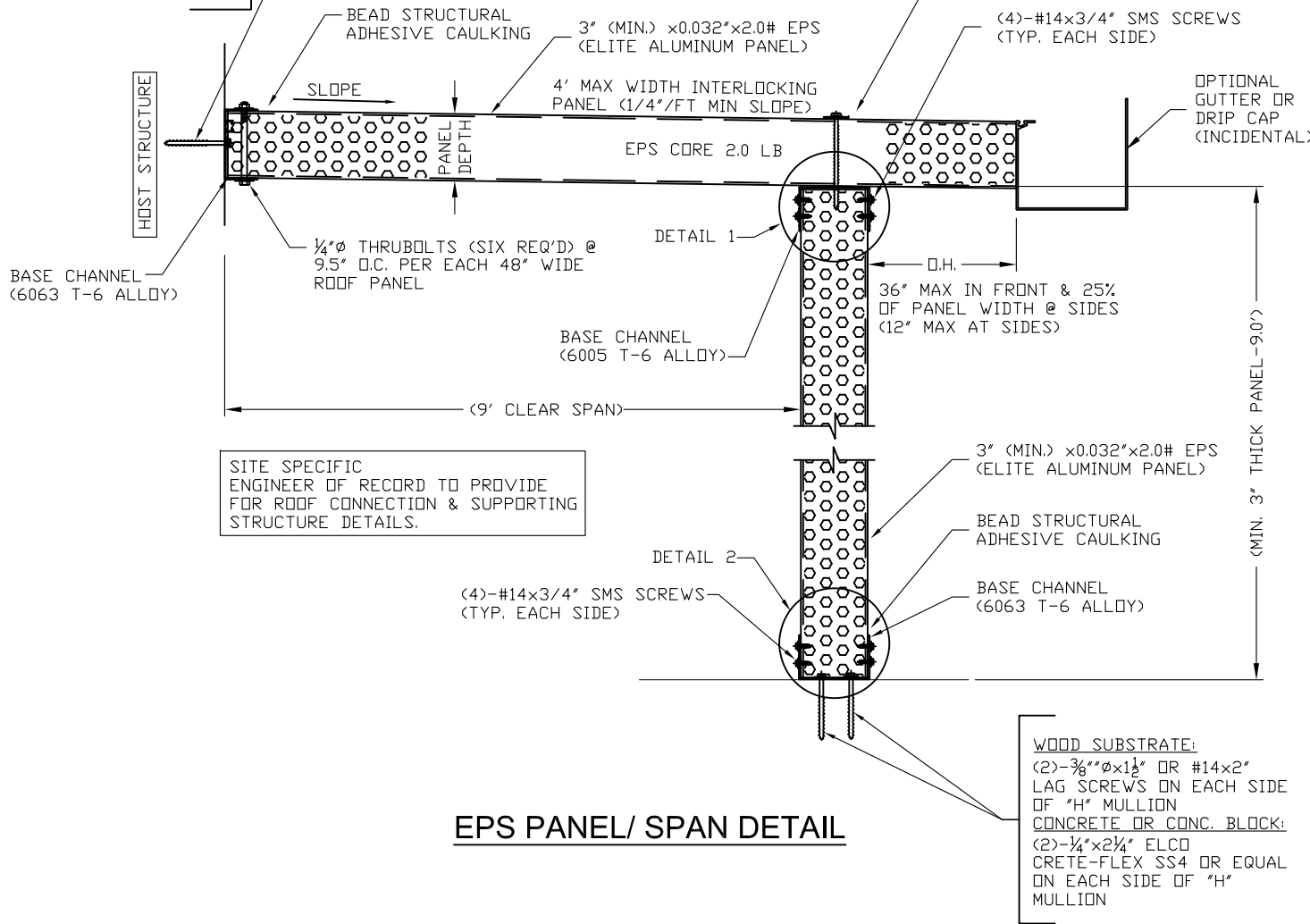
Other components shown include:

- 3" ELITE H-MULL (pointing to the vertical mullion)
- Labels A, B, and C indicating specific dimensions or sections.

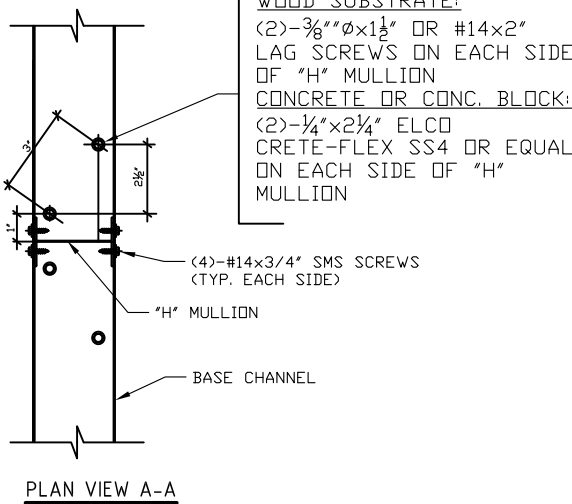
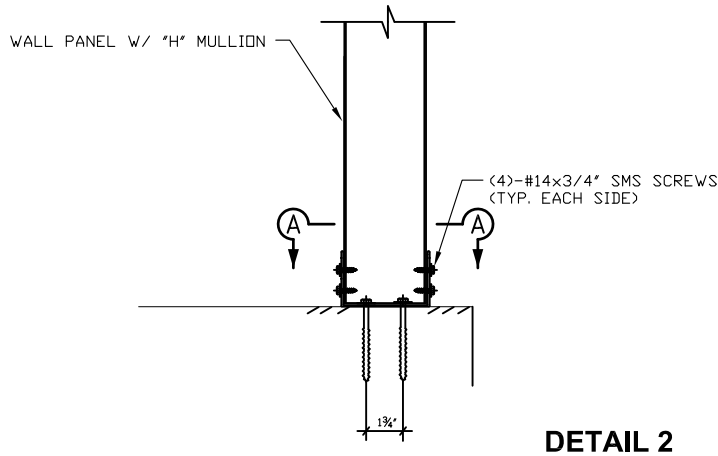
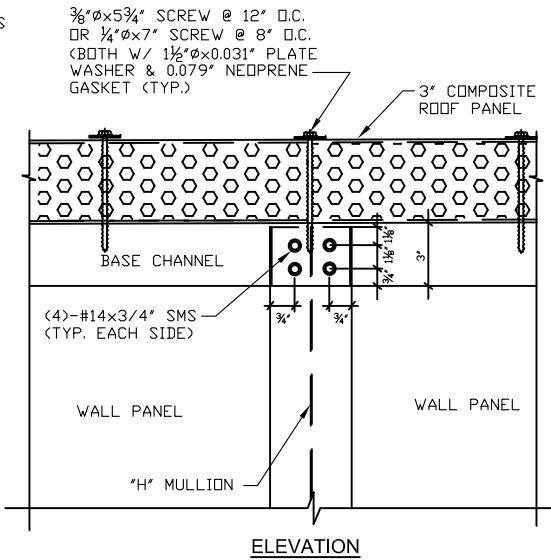
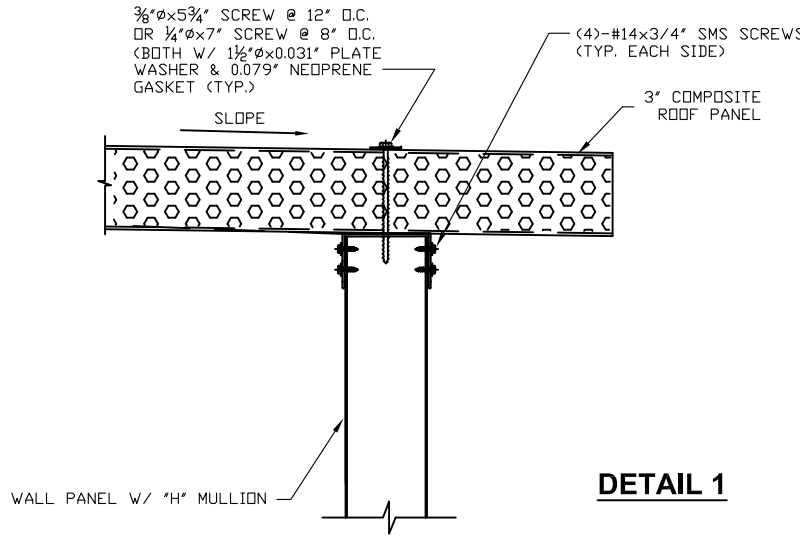
ISOMETRIC



WOOD SUBSTRATE:
3/8" x 1 1/2" OR #14 x 2" LAG
SCREWS 2" FROM PANELS
ENDS & 6" O.C. PER PANEL
CONCRETE OR CONC. BLOCK
1/4" x 2 1/4" ELCO CRETE-FLEX
SS4 OR EQUAL 2" FROM
PANELS ENDS & 6" O.C.
PER PANEL



1. Composite panels shall be constructed using type 3105-H154 or 3003-H154 aluminum facings, 2 PCF ASTM C-578 Kingspan Insulation LLC or Imperial Foam & Insulation MFG. CO. brand EPS adhered to aluminum facings with Ashland Chemical 2020D ISO grip. Fabrication to be by Elite panel products only in accordance with approved fabrication methods.
2. Elite roof panels maintain a UL 1715 (int) class 'B' (ext) rating and are NER-501 approved.
3. Elite 1 hour fire rated panel exceeds the structural and impact capacity of the standard 3"x0.032"x 1-lb EPS panel. Double 1 hour panel to achieve 2 hour fire rating wall.
4. This specification has been designed and shall be fabricated in accordance with the requirements of the Florida Building Code 8TH 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.
5. 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 load tables and spans in this approval.
6. Deflection limits and allowable spans have been listed to meet FBC including the HVHZ.
7. Testing has been conducted in accordance to TAS 201-94, TAS 202-94 (including water), TAS 203-94, and ASTM E72.
8. Reference test report number 97-044 from Construction Testing Corporation, 13873 N.W. 19th Avenue, Miami, FL 33054.
9. In the HVHZ, all fasteners to be austenitic stainless steel or coated or plated carbon steel with a Rockwell hardness less than C35 in the load bearing portion of the shank. Screws shall be zinc coated per ASTM A123, A641, or B633 or nickel/chromium plated per ASTM B456, Type SC per Aluminum Design Manual-Part 1.
10. 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.
11. Products meet the FBC deflection limits including the HVHZ (L/80 for spans $\leq 12'-0"$ in HVHZ and L/120 in non-HVHZ per Chapter 16 Table 1604.3.
12. In HVHZ regions, the L/80 deflection limit is for use in Group R3 occupancies with roof projection not exceeding 12 feet and where the structures are not to be considered living areas per FBC Section 1616.3.1 #8.
13. Roof panels may be interlocked to unlimited width within the limitations of the site-specific engineering. Walls panels shall be maximum 48" wide with "H" mullion between wall panels.
14. Wall and roof panels may be used in site-specific engineered sunroom systems utilizing glazed openings as allowed by the engineer of record. Engineer of record may specify equivalent alternate connection details.
15. Concrete substrate shall be 3350 PSI minimum. Concrete block shall be 2070 PSI minimum. Wood shall have specific gravity (G) of 0.36 minimum.



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Rev./Date	Description
0 8/16 2017	ISSUED FOR PRODUCT APPROVAL
1 8/6 2020	ISSUED FOR 7th EDITION FBC PRODUCT APPROVAL
2 8/15 2023	ISSUED FOR 8th EDITION FBC PRODUCT APPROVAL

EPS FOAM CORE COMPOSITE PANELS
ALUMINUM/ALUMINUM SKIN
FLORIDA STATEWIDE PRODUCT APPROVAL

DRAWN BY:	DYK
CHECKED BY:	DYK
SCALE:	AS SHOWN
DATE:	2/19/09

DO KIM & ASSOCIATES, LLC
CA# 26887
PO Box 10039
Tampa, FL 33679

DO KIM & ASSOCIATES, LLC
CONSULTING STRUCTURAL ENGINEERS

Florida Board of Engineers Certificate of Authorization No. 26887

Product Evaluation Report

Date: August 15, 2023

Report No.: 090301-R6

Product Category: Structural Components (FL#12225-R6)

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

Product Name: Elite Foam Core-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, Method (1) (d) 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 & 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, 8th Edition (2023 FBC), inclusive of the HVHZ and where pressure and deflection requirements, as determined by Chapter 16 of the Florida Building Code, do not exceed the following nominal (allowable) design pressure of +43 psf, -70 psf.



This item has been digitally signed and sealed by Do Y. Kim on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Do Y Kim

Digitally signed by
Do Y Kim
Date: 2023.08.16
11:15:41 -04'00'

Do Kim, P.E.
FL #49497

Supporting Documents

1. Drawings:
 - a. Drawing No. 090227-R6 titled “EPS Foam Core Composite Panels Aluminum/Aluminum Skin”, Sheet 1 of 1, prepared by Do Kim & Associates, LLC, signed and sealed by Do Kim, P.E.
2. Testing
 - a. Testing per TAS 201-94, TAS 202-94, and TAS 203-94 as performed by Construction Testing Corporation, located at 13873 N.W. 19th Avenue, Miami, FL 33054, (305) 685-6657. Report No 97-044 dated January 21, 1998.
 - b. Miami-Dade County Approved NOA No. 17-1207.05, February 1, 2018. Classified Foamed Plastic Surface Burning Characteristics, Dyplast Products LLC, Flame Spread and Smoke Developed Index for EPS foam is 0 and 110.
 - c. Miami-Dade County Approved NOA No. 22-0627.04, July 21, 2022. Classified Foamed Plastic Surface Burning Characteristics, Kingspan Insulation LLC, Flame Spread and Smoke Developed Index for EPS foam is 0 and 110.
3. Calculations
 - a. Anchor calculations for tested loading conditions and fire rating analysis per Gypsum Design Manual GA File No. WP 1311-PG. 35 has been prepared based on comparative and/or rational analysis by Do Kim, P.E.
4. Other
 - a. Quality Assurance Agreement verified with Quality Auditing-Institute, LTD. (QAI Laboratories, LTD.) (FBC Organization #QUA7628).

Limitations and Condition of Use

1. Large and small missile impact resistance has been tested to and evaluated for this approval. Approved for use in HVHZ areas.
2. 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.
3. Use of each product shall be in strict accordance with its Product Approval Evaluation Documents.
5. This specification has been designed and shall be fabricated in accordance with the requirements of the Florida Building Code 8th 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.
6. The designer shall determine by accepted engineering practice the allowable loads for site specific load conditions.
7. All supporting host structures shall be designed to resist all superimposed loads.
8. Elite Aluminum Corporation Impact Doors and Impact Windows may be incorporated into system as allowed substitute panels. All limitations shall be adhered to and lowest allowed design pressure shall govern the system design.
9. Composite panels shall be constructed using type 3003-H154 or 3105-H154 aluminum facings, 2 PCF ASTM C-578 Kingspan Insulation LLC brand EPS foam insulation (NOA No. 22-0627.04) or Imperial Foam & Insulation MFG. CO. adhered to aluminum facings with Ashland Chemical 2020D ISO grip. Fabrication to be by Elite panel products only in accordance with approved fabrication methods.
10. Elite roof panels maintain a UL 1715 (int) class 'B' (ext) rating and are NER-501 approved.
11. Deflection limits and allowable spans have been listed to meet FBC including the HVHZ (L/80 for spans $\leq 12'-0"$ in HVHZ per Section 1616.3.1, and L/180 in non-HVHZ per Chapter 16 Table 1604.3).
12. All supporting host structures shall be designed to resist all superimposed loads.
13. All components which are permanently installed shall be protected against corrosion, contamination, and other such damage.