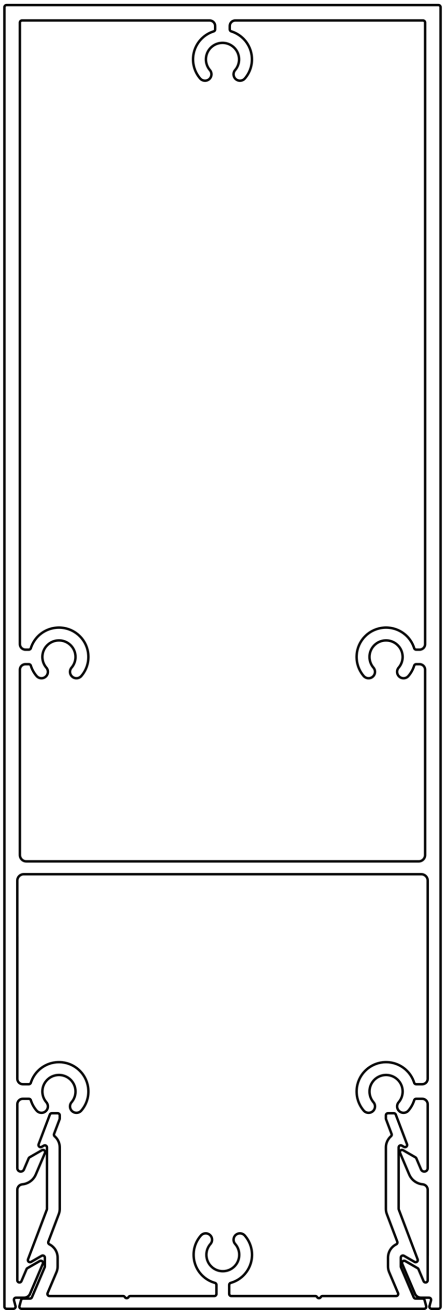
ARCHITECTURAL FINS

SUBMITTAL PACKAGE

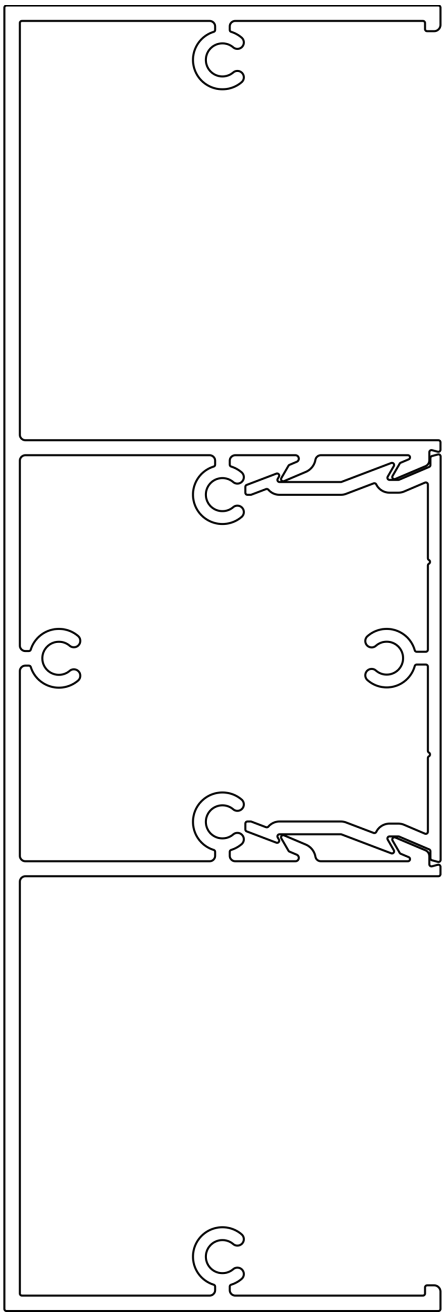
ARCHITECTURAL FINS

Fast Plank® Systems



Standing

Surface



GENERAL NOTES

Fast Plank® Systems

Deviation Statement

The submitted Architectural Fins system complies fully with the requirements of the referenced specification section. No deviations from the contract documents are proposed.

WHAT'S INSIDE

Fast Plank® Systems

SUBMITTAL FORM

Fast Plank® Systems

Date	Date Due	Project Name
To	From	Subcontractor

Key #	Description:

Notes: _____

_____

_____

_____ _____

Submitted by Signature

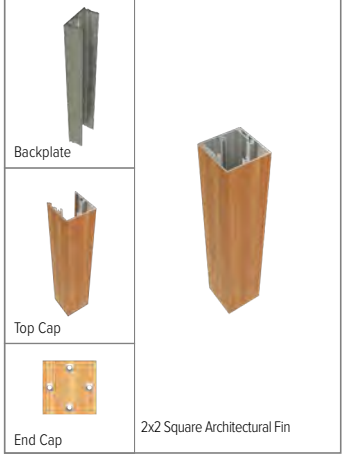
FastPlank® Systems

Architectural Fins

Profile Legend

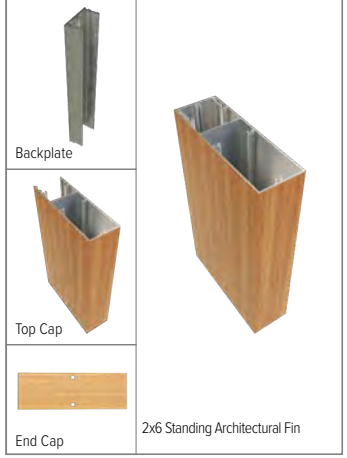
STANDING

ST-2

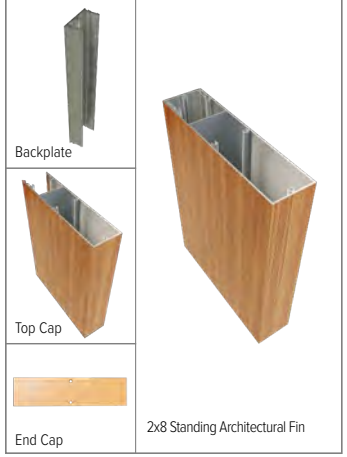


ST-4

ST-6

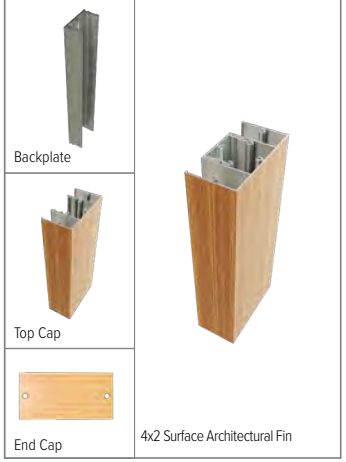


ST-8



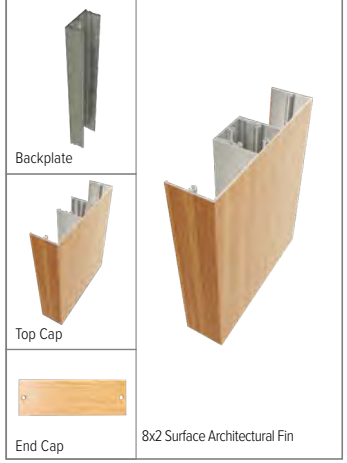
SURFACE

SF-4



SF-6

SF-8



ACCESSORIES

MS34

3/4" Metal Screw

MS112

1-1/2" Metal Screw

WS112

1-1/2" Wood Screw

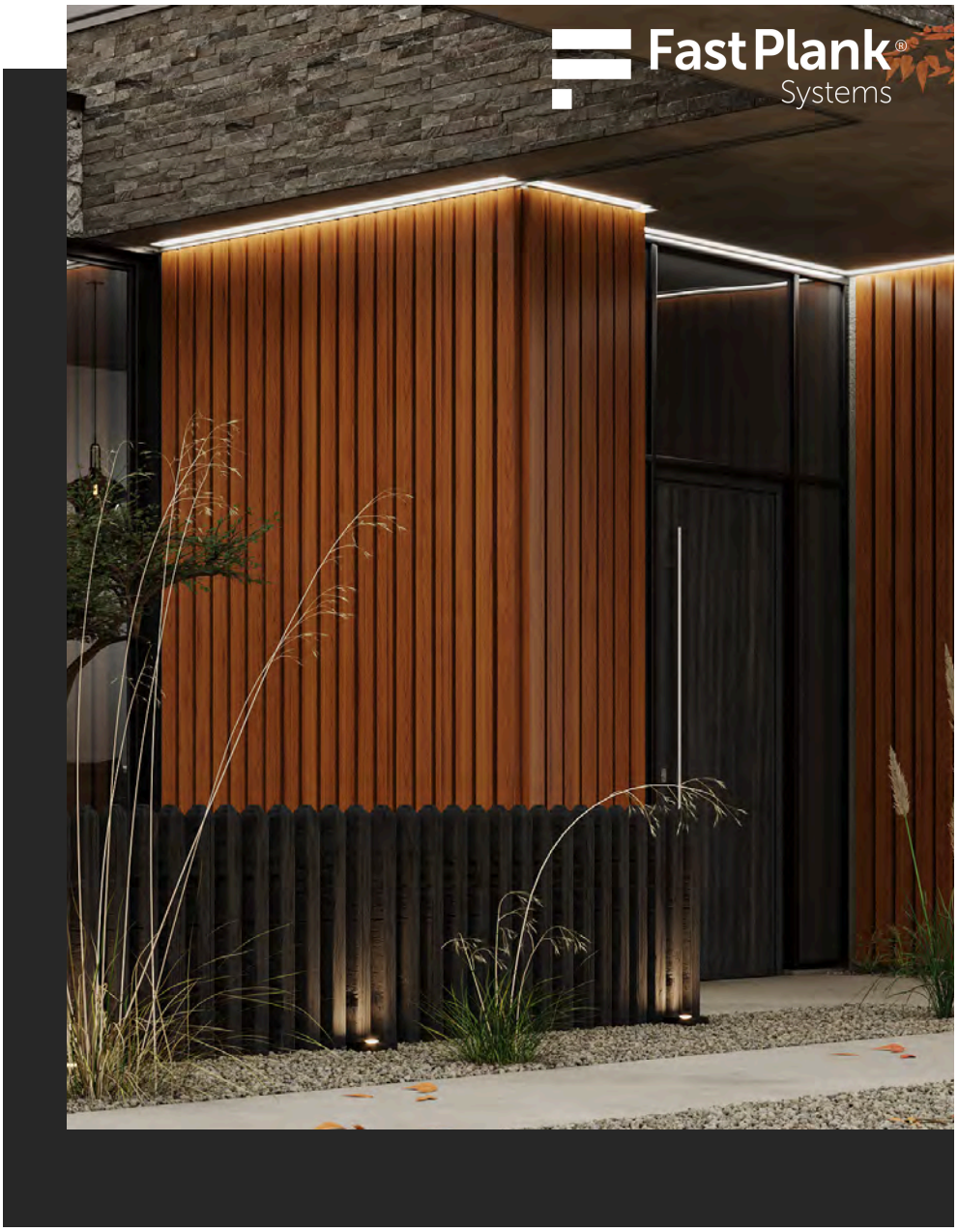
MCS38

3/8" Machine Screw

Powder Perfect Exteriors

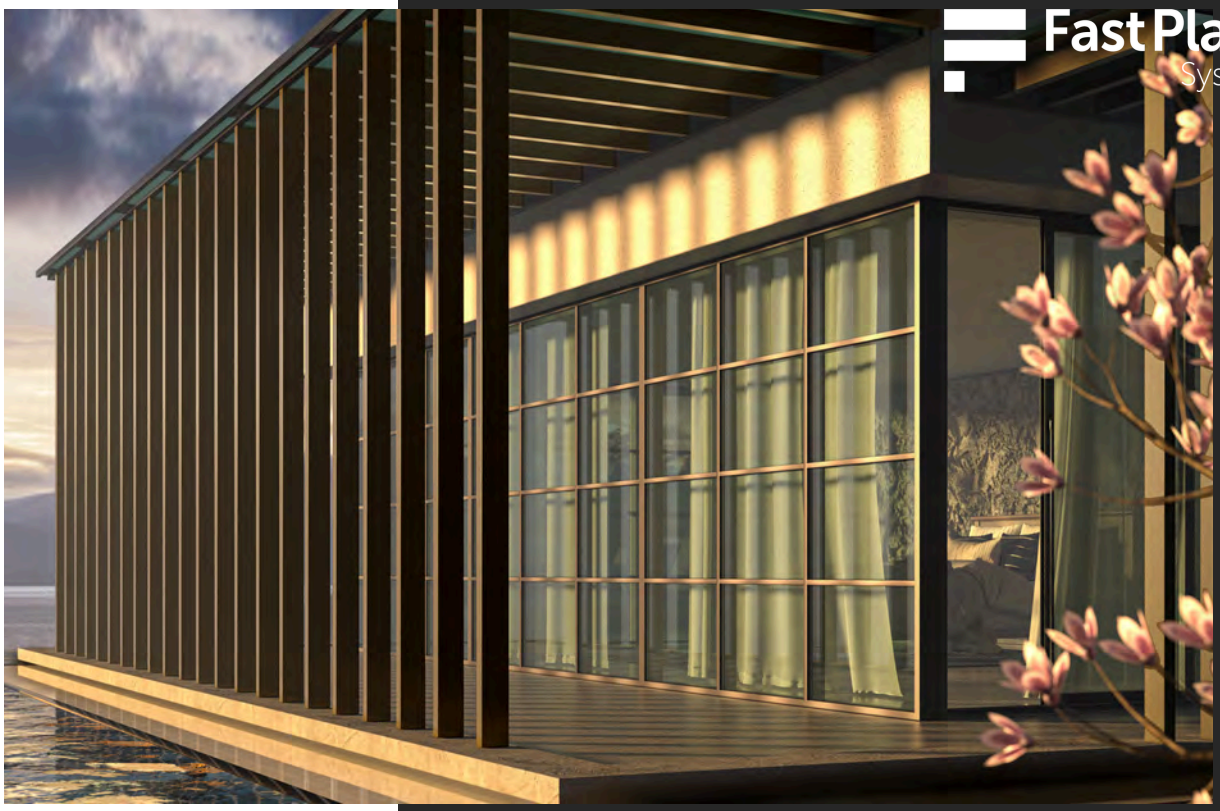
+1 877 973 8746
info@engagebp.com
engagebp.com/quickpanel

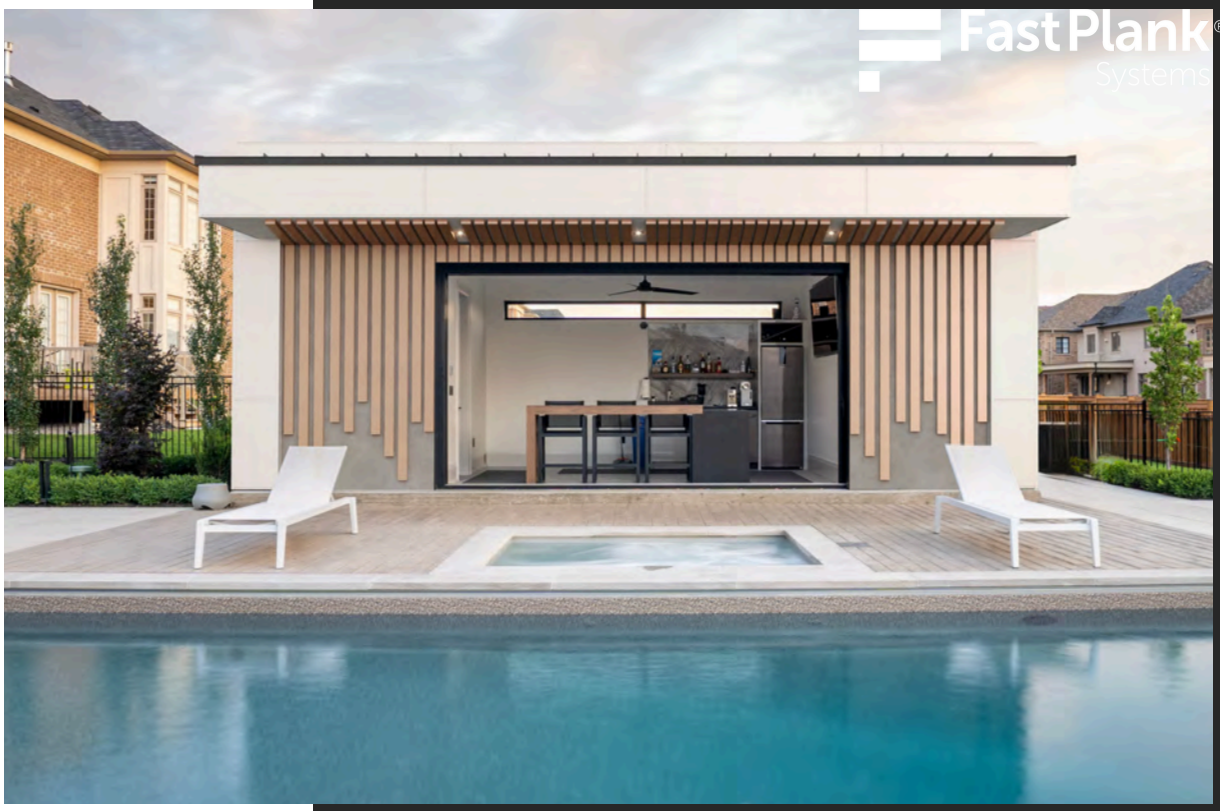
ENGAGE BUILDING PRODUCTS®

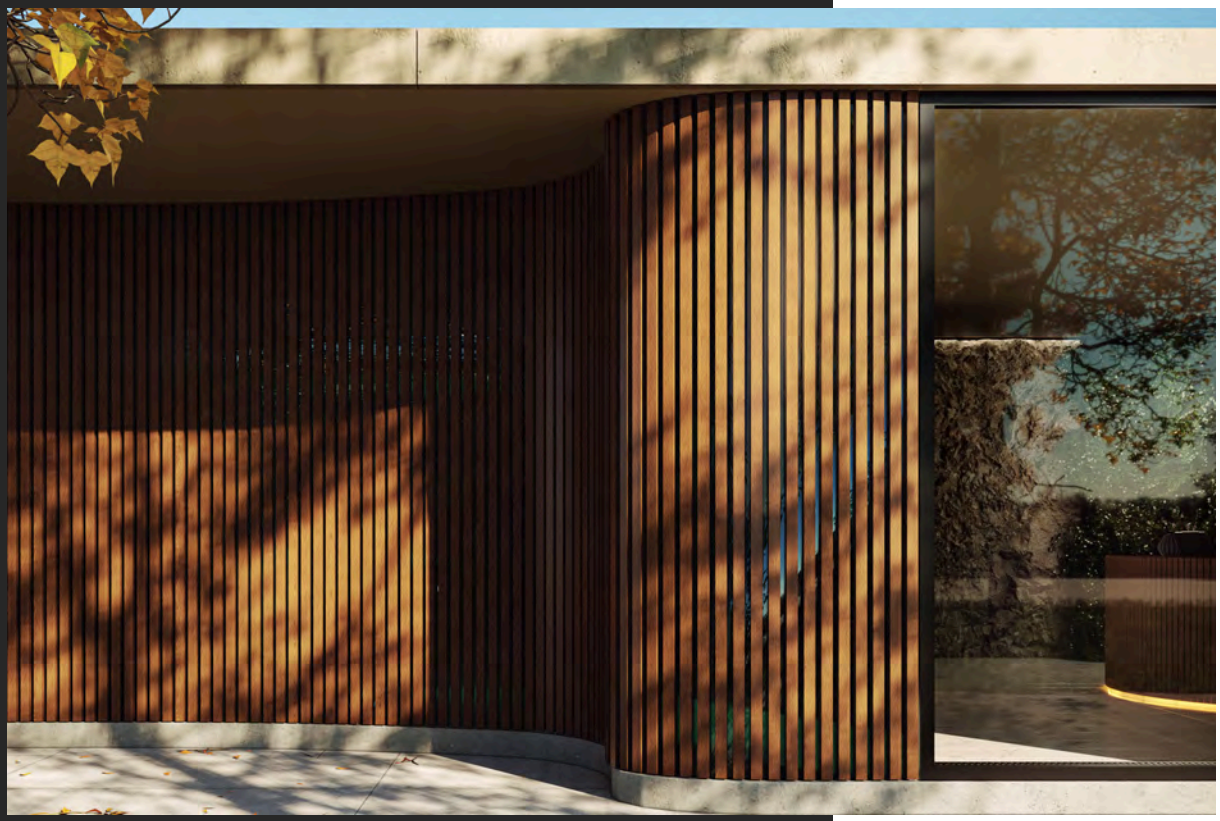


GALLERY

Precision-extruded from aluminum, Engage Architectural Fins deliver sculptural depth, shade, and visual rhythm to modern façades. Available in standing or surface-mounted profiles, the system can be installed as a fixed feature or configured to float on a concealed track. Clean lines, hidden fasteners, and durable finishes allow designers to articulate façades with confidence—balancing performance, longevity, and refined architectural expression.


Fast Plank®
Systems


FastPlank®
Systems



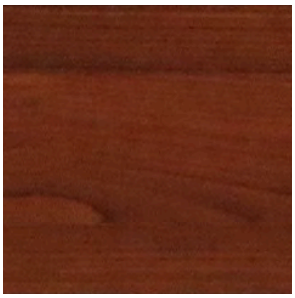
COLOR OPTIONS

FastPlank® Systems

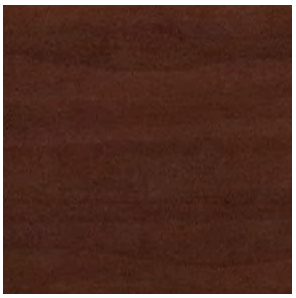
Stock Woodgrains

Light Cherry

Dark Fir



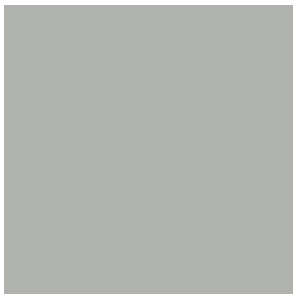
Dark Cherry



Dark Walnut

Stock Solids

Bone White



Cadet Grey

Charcoal

Classic Black

Custom solid colors with ColorMatch® (additional lead times apply)

All finishes shown are reproductions and may differ slightly from actual products. Product samples are available for color verification and approval.

All FastPlank® products come with 50-year Product warranty and 20-year Finish warranty

Special Order Woodgrains

Special order woodgrains may be subject to minimum order quantities and lead times from 12-14 weeks.


Western White Maple

Arctic White Oak


Belgium Pear

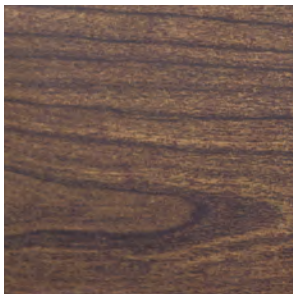

Light Mahogany


Pecan Hazelwood


Knotty Pine


Hickory Oak


Autumn Chestnut


Cafe Noir


Mocha Oak


Chestnut Brown Oak


European Walnut


Beechwood

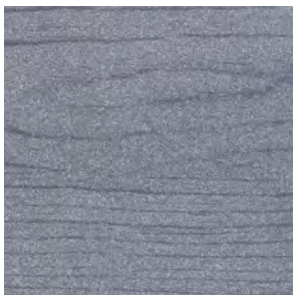

Ironwood


Dark Zebra

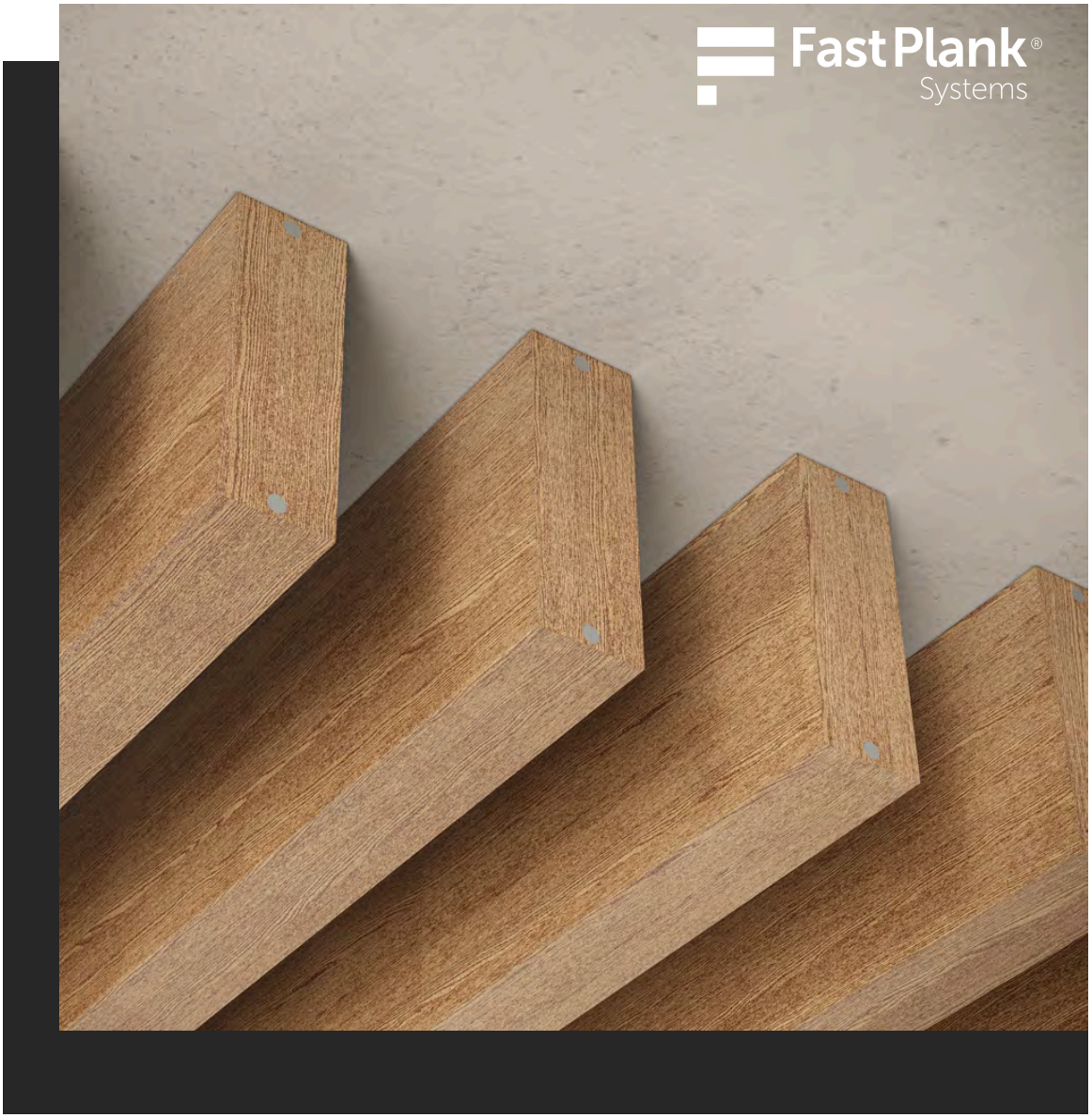

Italian Rosewood


African Walnut


National Grey

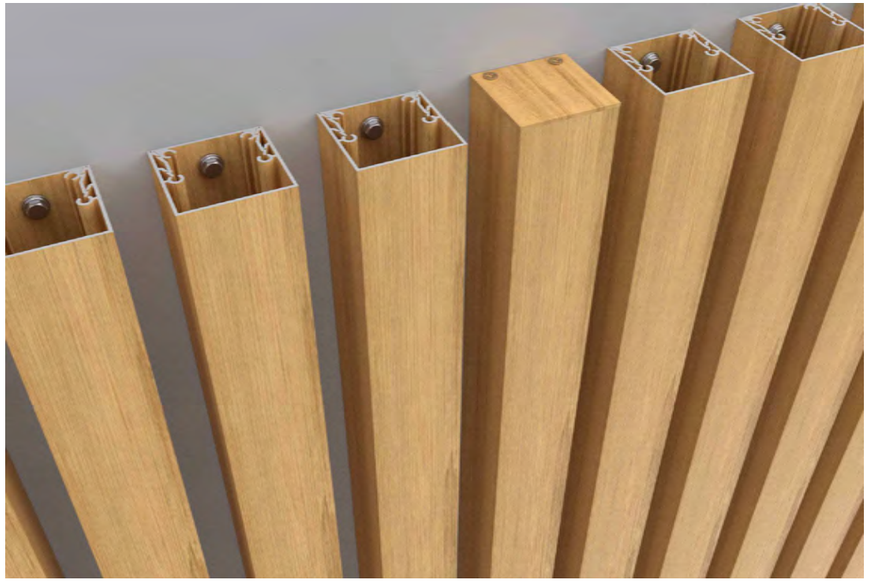

Fossil Grey


Smoked Ash

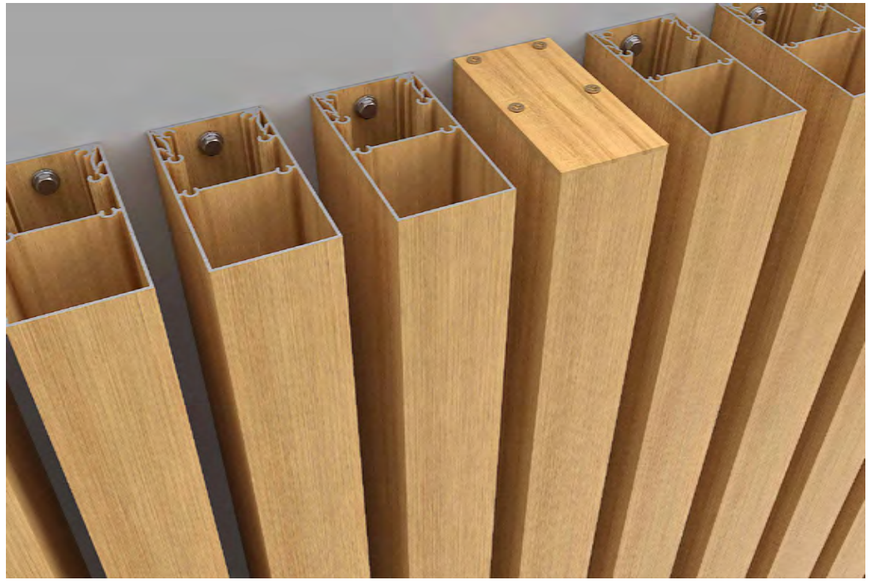


TYPICAL DETAILS

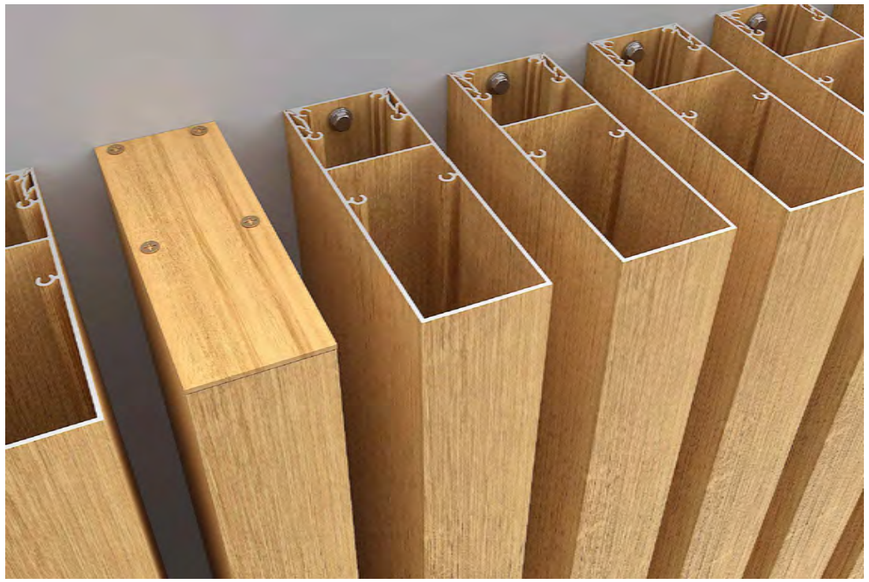
FastPlank® Architectural Fins install using the same proven principles found across the FastPlank system. Designed around familiar components and straightforward sequencing, the system ensures precise alignment and efficient installation without introducing unnecessary complexity on site.



2X2 SQUARE ARCHITECTURAL FIN



2X4 STANDING ARCHITECTURAL FIN



2X6 STANDING ARCHITECTURAL FIN

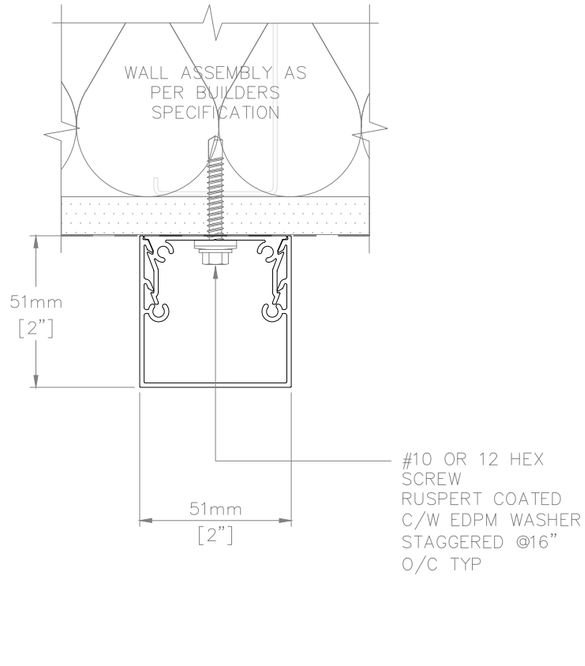
2X8 STANDING ARCHITECTURAL FIN

DESCRIPTION

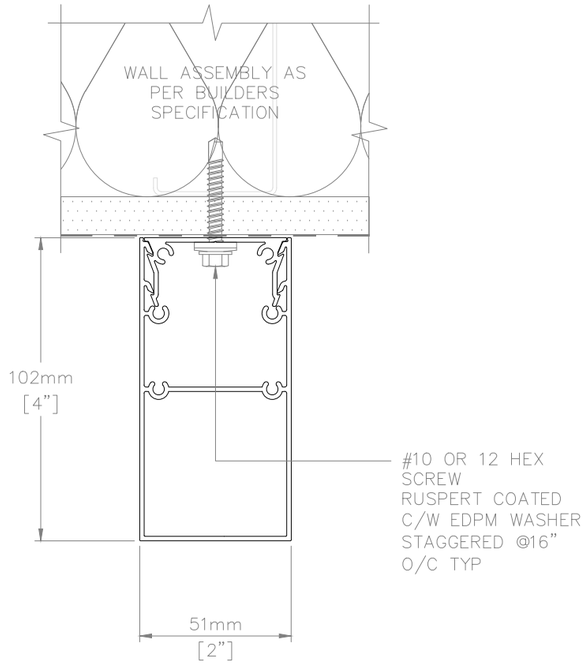
STANDING ARCHITECTURAL FIN RENDERINGS

ENGAGE BUILDING PRODUCTS™

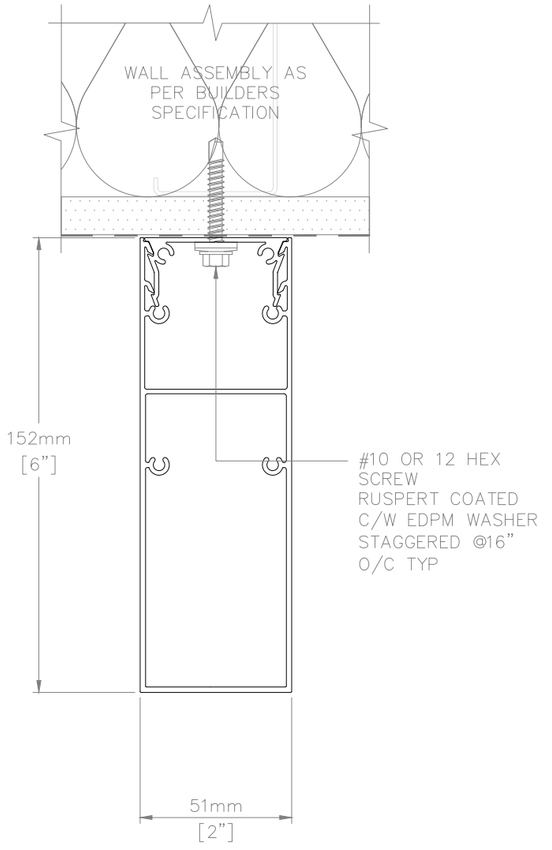
SCALE	1:4	DRAWING NUMBER
DATE	16DEC2025	G-006-20
DRWN BY	RD	



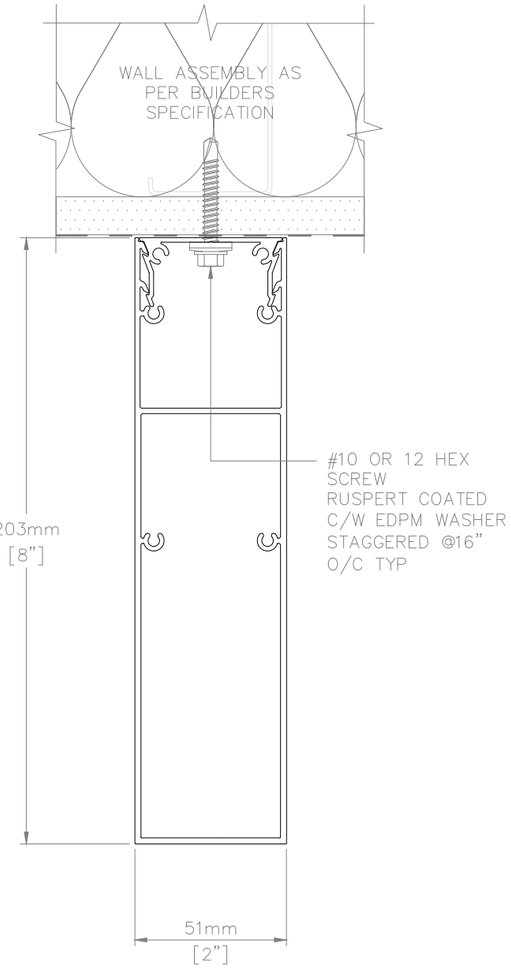
2X2 SQUARE ARCHITECTURAL FIN



2X4 STANDING ARCHITECTURAL FIN



2X6 STANDING ARCHITECTURAL FIN



2X8 STANDING ARCHITECTURAL FIN

DESCRIPTION

STANDING ARCHITECTURAL FIN DETAILS

ENGAGE BUILDING PRODUCTS™

SCALE	1:2	DRAWING NUMBER
DATE	16DEC2025	G-006-21
DRWN BY	RD	

4X2 SURFACE ARCHITECTURAL FIN

6X2 SURFACE ARCHITECTURAL FIN

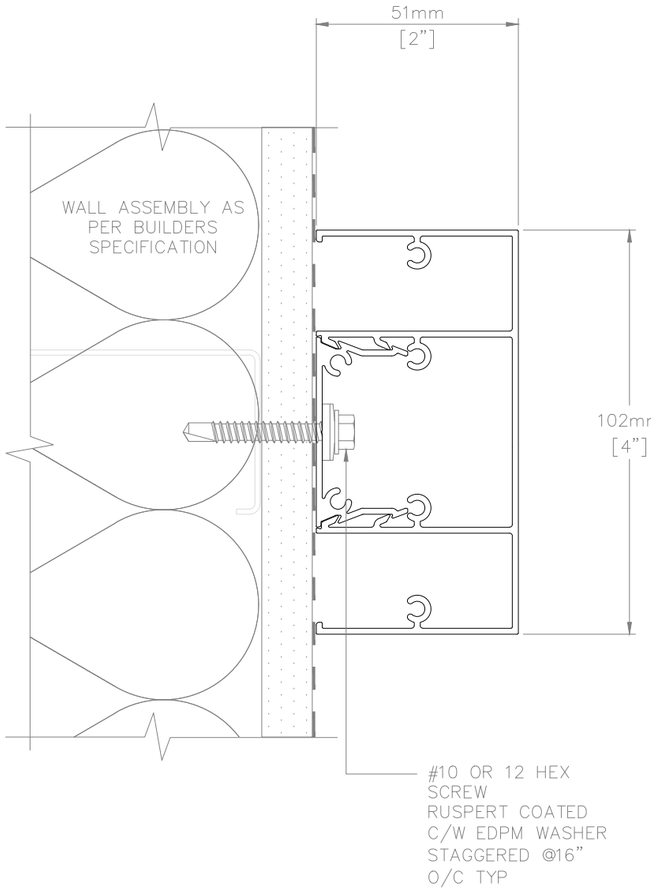
8X2 SURFACE ARCHITECTURAL FIN

DESCRIPTION

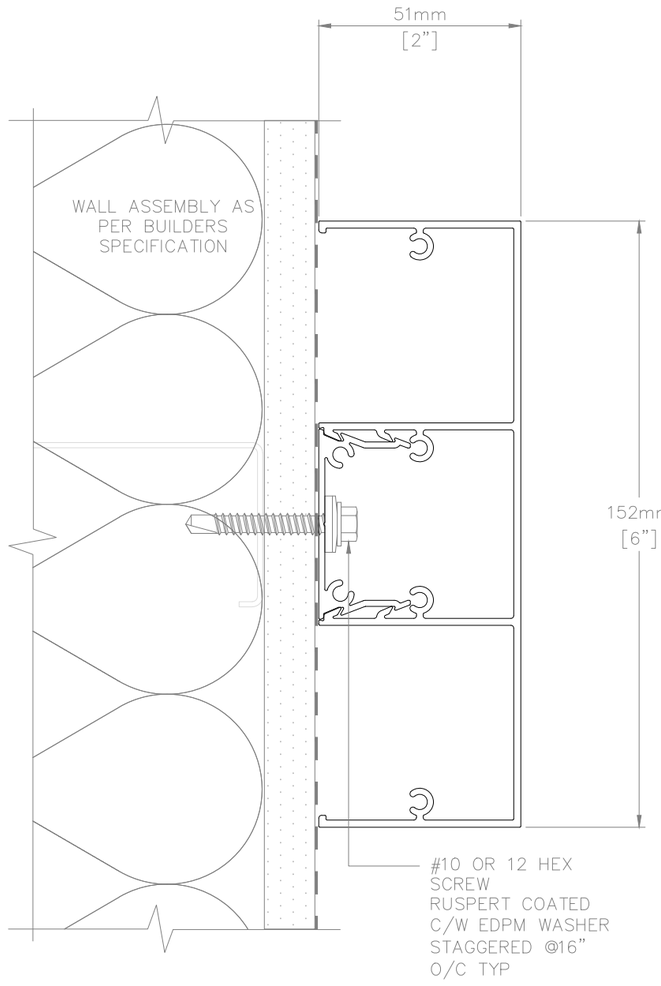
SURFACE ARCHITECTURAL FIN RENDERINGS

ENGAGE BUILDING PRODUCTS™

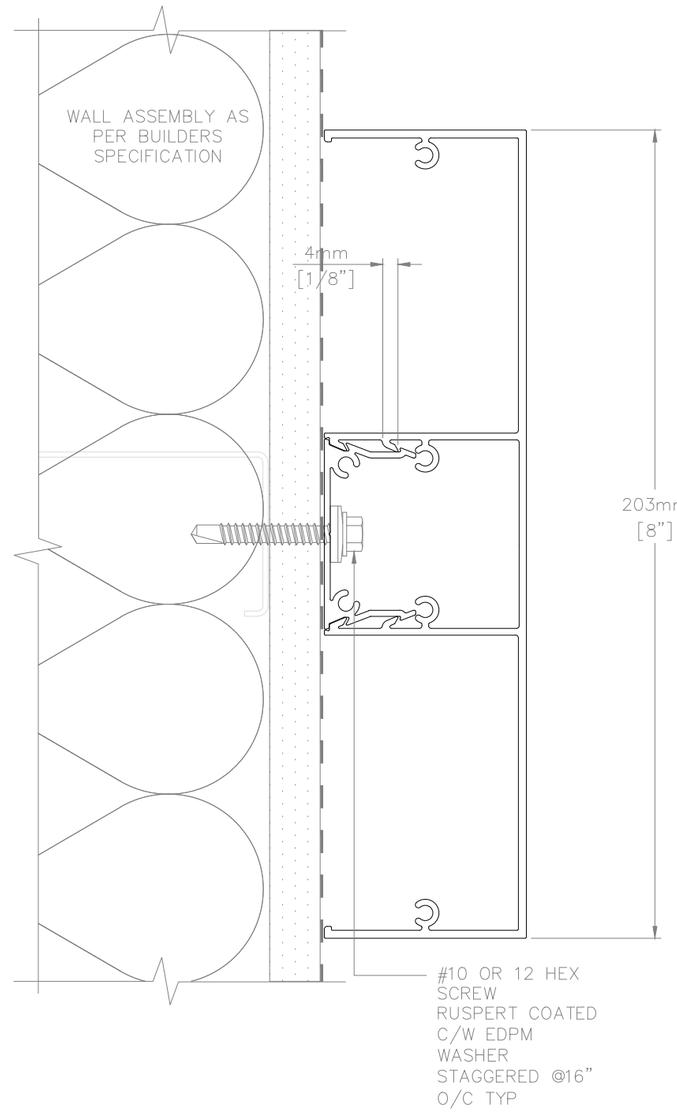
SCALE	1:4	DRAWING NUMBER
DATE	16DEC2025	G-006-22
DRWN BY	RD	



4X2 SURFACE ARCHITECTURAL FIN



6X2 SURFACE ARCHITECTURAL FIN



8X2 SURFACE ARCHITECTURAL FIN

DESCRIPTION

SURFACE ARCHITECTURAL FIN DETAILS

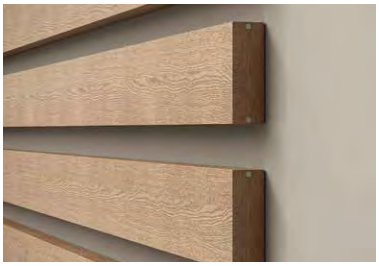
ENGAGE BUILDING PRODUCTS™

SCALE	1-1.5	DRAWING NUMBER
DATE	16DEC2025	G-006-23
DRWN BY	RD	

Architectural Fins

Product **FastPlank®** | Document **Cut Sheet** | Category **Plank**

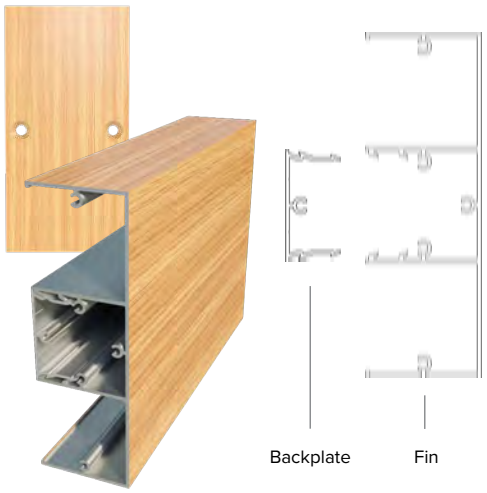
Features



FastPlank Architectural Fins are a high performance, aluminum extrusion system offered in a range of widths and depths in a variety of wood grain textures and solid colors.

- The Snap-lock technology eliminates all exposed fasteners while providing a direct connection to the wall.
- Beauty caps installed at the end of the fins complete the installation to provide a fully enclosed look.

Available in Standing (2″x2″, 2″x4″, 2″x6″, 2″x8″) and Surface (4″x2″, 6″x2″, 8″x2″).



Finish Options

WOODGRAINS

SOLID COLORS

COLORMATCH®

All Architectural Fins are custom order. **Lead time varies**. Check with your local Sales Representative.

Attachments

Clips & Connectors
End Caps

Accessories
3/4″ metal screw • 1-1/2″ metal screw
• 1-1/2″ wood screw

Installation and Drawing Files

Refer to **FastPlank installation guide**. DWG files are available on our website, **engagebp.com**

Orientation

STANDING

SURFACE

Pro Tip - Architectural fins are always measured starting with the dimension mounted against the wall. For example, if the side anchored to the wall is 2 inches and the fin projects 6 inches outward, the architectural fin is specified as 2"x6".

Technical Specifications

PHYSICAL DATA

Material	6063-T6 Extruded Aluminum
Thickness	15 Gauge
Finish	Powder Coated; Woodgrain Sublimation Film (Repeat every 4 Feet)
Warranty	20-Year Finish Warranty; 50-Year Product Warranty
Length	Custom up to 24′
Weight (lbs/sqft)	6″ bar – 1.51 6″ beam – 1.60

TESTING/ CERTIFICATIONS

Finish	AAMA 2604 & 2605
Fire Rating	
Non Combustible	CAN/ULC S114 & ASTM E136
Fire Resistant	ASTM E119/S101
Thermal Properties	ASTM C1363 HOT Box Test
Flame/ Smoke Index	ASTM E84
Material Properties	
Impact Resistance	AAMA 1402
Salt Spray Resistance	ASTM B117
Humidity Resistance	ASTM D3359
Film Adheshion	ASTM D3359
Film Hardness	AAMA 1402 Test Method #6 1.5
Accelerated Exposure	ASTM D822
Forming Test	AAMA 1402 Test Method #6 1.7
Dry Film Thickness	ASTM D1400
Impact Test	AAMA 1402 Test Method #6 1.9
Gloss Determination	ASTM D523
Scretch Resistance	Passed Xenon Test
Hail Resistance	Met VSH Hail Resistance Rating
Structural	
Tensile Strength	ASTM E8
Corrosion Resistance	ASTM D1654
Environmental	LEED Building Compliance
Light (UV) Reflectance	ASTM C1549 Solar Reflectance Test

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

A. Provide design and engineering, labor, material, equipment, related services, and supervision required, including, but not limited to, manufacturing, fabrication, erection, and installation for the Work of this section, including but not limited to the following:

1. Architectural Fins**:**
2" x 2" [51 mm x 51 mm] STANDING FIN.
2" x 4" [51 mm x 102 mm] STANDING FIN.
2" x 6" [51 mm x 152 mm] STANDING FIN.
2" x 8" [51 mm x 203 mm] STANDING FIN.
4" x 2" [120 mm x 51 mm] SURFACE FIN.
6" x 2" [152 mm x 51 mm] SURFACE FIN.
8" x 2" [203 mm x 51 mm] SURFACE FIN.
4" x 4" [102 mm x 102 mm] SURFACE FIN.
or **custom profile [Contact a FastPlank representative for assistance].**

1.3 REFERENCES

A. General: The publications listed within form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The edition/revision of the referenced publications shall be the latest date as of the date of the contract documents, unless otherwise specified.

B. American Architectural Manufacturers Association (AAMA):

1. AAMA 2604 Voluntary Specification, Performance Requirements and Test Procedures for Premium Performing Organic Coatings on Aluminum Extrusions and Panels.

C. ASTM International (ASTM):

1. ASTM B117 Standard Practice for Operating Salt Spray (Fog) Apparatus.
2. ASTM D714 Standard Test Method for Evaluating Degree of Blistering of Paints.
3. ASTM D1654 Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
4. ASTM D2247 Standard Practice for Testing Water Resistance of Coatings in 100 % Relative Humidity.
5. ASTM D3363 Standard Test Method for Film Hardness by Pencil Test.
6. ASTM D4214 Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.
7. ASTM E329 Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
8. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials

9. ASTM E135 Standard Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750 °C
10. ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
11. ASTM E330 Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference

D. US Green Building Council LEED v4.1

E. PREINSTALLATION CONFERENCE

1. Preinstallation Conference: Prior to installation commencing at a date and time acceptable to the Owner and the Consultant,
2. Location: Project site, at date and time acceptable to the Owner and the Consultant.
3. Attendees: At minimum, the Contractor, Installer, and trades requiring coordination with the work.
4. Agenda: Review the following.

    a. Material selections, installation procedures, and coordination with other trades.
    b. Finalize construction schedule, availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
    c. Methods and procedures related to installation, including manufacturer's written instructions.
    d. Support Conditions: Verify compliance, alignment, and attachment to structural members.
    e. Governing regulations and requirements for insurance, and authorities having jurisdiction.
    f. Temporary protection; during and after installation.
    g. Procedures for damaged siding repair after installation

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Sufficient information to determine compliance with the Drawings and Specifications.

1. Manufacturer’s information sheets marked to include products proposed for use.
2. Include, but is not limited to, construction details, material descriptions, dimensions of individual components and profiles, and finishes aluminum siding and accessories.
3. Storage and handling recommendations.

C. Shop Drawings: For each product and accessory required.

1. Include information not fully detailed in manufacturer’s standard product data, including, but not limited to:

    a. Installation layouts of aluminum architectural fins
    b. Details: Anchorages, attachment details; and special details.
    c. Accessories: Include details of the anchorage.
    d. Distinguish between factory- and field-assembled work.

D. Samples:

1. For initial color selection.
2. For each type of architectural fin indicated with factory-applied color finishes.
3. Manufacturer's color charts showing the full range of colors and finishes available.
4. Finishes Involving Normal Color Variations: Include samples showing the full range of variations expected.
5. Exposed Sealants: Each type and color required. Install joint sealants in 1/2 inch [12.7 mm] wide joints formed between two 6 inch [152.4 mm] long strips of material matching the appearance of metal panels adjacent to joint sealants.

E. Product Test Reports: For each product, tests are to be performed by a qualified testing agency.

F. LEED v4.1 Submittals: Provide documentation of how the requirements of Credit will be met:

1. Product Data for Credit MR 2.1 and 2.2: For products being recycled, documentation of total weight of project waste diverted from landfill.
2. Product Data for Credit MR 4.1 and MR 4.2: For products that have recycled content, documentation including percentages by weight of post-consumer and pre-consumer recycled content.
3. Include statement indicating costs for each product having recycled content.
4. Product Data for Credit MR 5.1 and Credit MR 5.2: Submit data, including location and distance from Project of Material: manufacturer and point of extraction, harvest, or recovery for main raw material.
5. Include statement indicating cost for each regional Material: and the fraction by weight that is considered regional.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Installer Qualifications: An employee of workers trained and approved by manufacturer.

a. A minimum of 5 years of experience, and has completed systems similar in material, design, and extent to that indicated for the Project and with record of successful performance.
b. Installer's Responsibilities: Include fabricating and installing metal panel assemblies and providing professional engineering services needed to assume engineering responsibility.

B. Regulatory Requirements: Comply with applicable requirements of the laws, codes, ordinances, and regulations of Federal, State, and local authorities having jurisdiction.

1. Obtain necessary approvals from such authorities.

C. Source Limitations: Obtain each type of siding through one source from a single manufacturer.

D. Mock-Ups: Build mockups to verify selections made and to demonstrate aesthetic effects and to set quality standards for fabrication and installation.

1. Demonstrate prepared substrate, support/attachment framing, siding façade, exterior finishes, and aesthetic appearance.
2. Confirm mock-up conforms with manufacturer's instructions and provisions of contract documents.
3. To be accepted in writing by architect or general contractor before commencement of work.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the project site in Supplier's or Manufacturer's original wrappings and containers, labeled with Supplier's or Manufacturer's name, material or product brand name, and lot number, if any.

1. Deliver architectural fin, and other manufactured items according to Manufacturer's instructions so as not to be damaged or deformed.
2. Package all materials for protection during transportation and handling.

B. Materials Storage: Store in original, undamaged packages and containers, inside a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity.

1. Unload and store architectural fin in a manner to prevent bending, warping, twisting, and surface damage.
2. Architectural Fin:

a. Cover with suitable weathertight and ventilated covering.
b. Ensure dryness, with positive slope for drainage of water.
c. Do not store in contact with other materials that might cause staining, denting, or other surface damage.
d. Do not allow storage space to exceed 120 degrees F (67 degrees C).
e. Handling: Prevent damage to surfaces, edges, and ends of siding. Reject and remove damaged Material from site.

C. Retain protective covering for period of architectural fin installation.

1.7 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal composite material panels to be performed according to manufacturers' written instructions and warranty requirements.

B. Field Measurements: Verify locations of structural members and wall opening dimensions by field measurements before siding fabrication and indicate measurements on Shop Drawings.

C. Established Dimensions: Where field measurements cannot be made without delaying the Work, either establish framing and opening dimensions and proceed with fabricating metal panels without field measurements or allow for field trimming of siding. Coordinate wall construction to ensure that actual building dimensions, locations of structural members, and openings correspond to established dimensions.

1.8 COORDINATION

A. Coordination: Coordinate siding systems with rain drainage work, flashing, trim, and construction of walls and other adjoining work to provide a leak proof, secure, and non-corrosive installation.

1.9 WARRANTY

A. FastPlank® Systems: 50-Year Product Warranty against faults and defects in materials and workmanship attributed to the manufacturer. The FastPlank® Systems warranty shall be counter-signed by the Manufacturer and the Installer.

1. Failures include, but are not limited to, the following:

a. Structural failures, including rupturing, cracking, or puncturing.
b. Deterioration of metals and other materials beyond normal weathering.

B. Special Finish Warranty: Submit a written warranty, signed by Manufacturer, covering failure of the factory-applied exterior finish within the specified warranty period. Deterioration of finish includes, but shall not be limited to, color fade, chalking, cracking, peeling, and loss of film integrity.

1. Warranty Period for Finish: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Acceptable Manufacturer: Engage Building Product: 1-877-973-8746 URL: www.engagebp.com; Email: info@engagebp.com

1. Basis of Design: FastPlank® Siding and Soffit Systems. Systems is comprised of metal cladding and accessories.

a. Substitutions: [Approved equals.] [Not permitted.] [Submit as specified in accordance with appropriate sections in Division 01.] [In accordance with Section 01 60 00.]

2.2 METAL CLADDING

A. Extruded Aluminum Cladding: Tension levelled, aluminum in accordance with ASTM B209 and ANSI H35.1 alloy designation 6063 T6 and as follows:

1. Architectural Fin Sizes: As required
2. [2” x 2” [51 mm x 51 mm] STANDING FIN. Weight: 0.559 lbs/ft (0.812 kg/m)]
   [2” x 4” [51 mm x 102 mm] STANDING FIN. Weight: 0.977 lbs/ft (1.418 kg/m)]
   [2” x 6” [51 mm x 152 mm] STANDING FIN. Weight: 1.482 lbs/ft (2.151 kg/m)]
   [2” x 8” [51 mm x 203 mm] STANDING FIN. Weight: 2.015 lbs/ft (2.925 kg/m)]
   [4” x 2” [120 mm x 51 mm] SURFACE FIN. Weight: 0.984 lbs/ft (1.429 kg/m)]
   [6” x 2” [152 mm x 51 mm] SURFACE FIN. Weight: 1.310 lbs/ft (1.901 kg/m)]
   [8” x 2” [203 mm x 51 mm] SURFACE FIN. Weight: 1.587 lbs/ft (2.304 kg/m)]
   [4” x 4” [102 mm x 102 mm] SURFACE FIN. Weight: 1.768 lbs/ft (2.566 kg/m)]
3. Profile: [Smooth] [Woodgrain].
4. Finish: Smooth Profile: [Powder coating per AAMA 2604] Woodgrain Profile: [Woodgrain sublimation film as per AAMA 2604].
5. Color: [As selected by Owner from manufacturer’s standard finish guide] [Custom color matched].

2.3 ACCESSORIES[

A. End Caps

B. Fasteners:

1. Attachment of Cladding to Steel Substrate: #10-12 self-drilling fasteners with EPDM washers and corrosion-resistant coating to withstand 1000 hours of salt spray protection.

a. Acceptable Materials: #10 Hex Head coated.

2. Attachment of Cladding to Wood Substrate: #10-12 fasteners with EPDM washers and corrosion-resistant coating to withstand 1000 hours of salt spray protection.

    a. Acceptable Materials: #10 Hex Head coated.

C. Isolation Tape: Manufacturer's standard material for separating dissimilar metals from direct contact.

D. Insulation Fastenings: Corrosion resistant, galvanized bugle head screws with 1-1/2 inch (38 mm) diameter washer, 1 inch [25 mm] minimum penetration into framing.

E. Insulation: Rigid type

F. Sealant: Color of exposed sealant to match adjacent cladding.

G. Gaskets: Santoprene or EPDM as recommended by the manufacturer.

H. Accessories: Cap flashings, drip flashings, internal corner flashings, copings and closures for head, jamb, sill, and corners, of same material, thickness and finish as exterior cladding, brake formed to shape.

I. Bituminous Coating: Cold-applied asphalt mastic, in accordance with CGSB 1.108, compounded for 15 mil (0.38 mm) dry film thickness per coat with inert type non-corrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.

2.4 FINISH PROPERTIES

A. High Performance Powder Coated Finish: Passes coating performance testing in accordance with AAMA 2604

1. Mechanical Test

    a. Dry Adhesion per AAMA 2604.02,7.4.1.1L: Pass. GTO.
    b. Abrasion Resistance per AAMA 2604.02, 7.6: Pass. Abrasion coefficient greater than 20.
    c. Dry Film Hardness per AAMA 2604.02, 7.3 ASTM D3363: Pass. No rupture of film.
    d. Impact per AAMA 2604.02, 7.5: Pass. No tape removal of film to substrate following 1/10 inch [2.54 mm] deformation.

2. Durability Testing:

    a. Salt Spray per ASTM B117, AAMA 2604.02, 7.8.2, and ASTM D1654: Pass. At 3,000 hours, no corrosion more than 1/16 inch [1.6 mm] from scribe. Minimum blister rating 8.
    b. Constant Humidity per ASTM D2247, ASTM D714, and AAMA 2604.02, 7.8.1: Pass. At 3000 hours. Blister formation less than "few" size no.8.
    c. Exterior Durability: 5 years Florida Exposure AAMA 2604.02, 7.9: Excellent performance. Color Change less than 5. Gloss retention: Greater than 30 percent. Chalking: Not in excess of No.8 ASTM D4214:89.

B. High Performance Sublimation Film on Powder Coated Finish. Passes coating performance testing in accordance with AAMA 2604.

1. Powder coated finish
2. Xenon Test: Scratch Performance of 1,000 Hours.

a. Residual Gloss: 88 to 104 percent.
b. Color Variation: 0.47 to 1.67
c. Grey Scale: 4 / 5
d. Result: Pass

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verification of Conditions: Examine areas and conditions under which the work is to be installed, and notify the Contractor in writing, with a copy to the Owner and the Architect, of any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

1. Examine substrates, areas, and conditions, with the Installer present, for compliance with requirements for installation tolerances, and other conditions affecting performance of the work.
2. Examine wall framing to verify that girts, angles, channels, studs, and other support members and anchorage have been installed within alignment tolerances required.
3. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking, and that installation is within tolerances required.
4. Verify that weather-resistant sheathing paper has been installed over sheathing or backing substrate to prevent air infiltration or water penetration.
5. Examine rough-in for components and systems penetrating aluminum architectural fins to verify actual locations of penetrations relative to seam locations of architectural fin installation.
6. The beginning of the work shall indicate acceptance of the areas and conditions as satisfactory by the Installer.

3.2 PREPARATION

A. Coordination: Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to the project site.

B. Obtain dimensions from project site before fabricating wall system.

C. Ensure structural support is aligned and condition is acceptable.

D. Building surfaces shall be smooth, clean, and dry, and free from defects detrimental to the installation of the system. Notify General Contractor of conditions not acceptable for installation of system.

E. Inspect wall system and components before installation and verify that there is no shipping damage.

F. Do not install damaged architectural fins; repair or replace as required for smooth and consistent finished appearance.

3.3 INSTALLATION OF SIDING

A. Install cladding and components in accordance with Manufacturer’s written installation instructions and shop drawings.

B. Ensure continuity of building envelope air barrier and vapor retarder systems.

C. Erect components plumb and true.

D. Install continuous back plate.

E. Install architectural fin.

F. Install end cap.

G. Maintain joints in exterior cladding, true to line, tight fitting, hair-line joints.

H. Attach components in a manner not restricting thermal movement.

I. Caulk junctions with adjoining work with sealant.

J. Apply isolation coating to areas of contact between dissimilar metals.

K. Touch-Up Painting: Inspect completed wall system and apply matching touch-up paint as needed to correct minor paint flaws.

3.4 ADJUSTING AND CLEANING

A. Remove temporary protective coverings and strippable films, if any.

B. On completion of aluminum architectural fin installation, clean finished surfaces with mild domestic detergent and warm water using a soft cloth. Maintain in a clean condition during construction.

C. After aluminum architectural fin, clear all drainage channels of obstructions and/or dirt.

D. Replace aluminum architectural fin that have been damaged or have deteriorated beyond successful repair by finish touch-up or similar minor repair procedures.

E. Any additional protection, after installation, shall be the responsibility of the general contractor to remove.

3.5 PROTECTION

A. Protect installed products and components from damage during construction.

B. Repair damage to adjacent materials caused by composite metal building panel installation.

END OF SECTION

Code Compliance Research Report
CCRR-0480

Issue Date: 03-28-2023
Revision Date: 03-19-2024
Renewal Date: 03-31-2025

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION
Section: 07 46 00 – Siding

REPORT HOLDER:
Fastplank Inc.
101, 4441 - 76 Avenue SE,
Calgary, AB T2C 2G5
1-877-973-8746
www.fastplank.com [fastplank.com]

REPORT SUBJECT:
Fastplank Siding System

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021 and 2018 *International Building Code®* (IBC)
- 2021 and 2018 *International Residential Code®* (IRC)

NOTE: This report references the most recent Code editions cited. Section numbers in earlier editions may differ.

1.2 The Fastplank Siding System has been evaluated for the following properties (see Table 1):

- Physical properties
- Surface burning characteristics
- Weather resistance
- Wind resistance
- Non-combustibility

1.3 The Fastplank Siding System has been evaluated for the following uses (see Table 1):

- Use as an exterior wall cladding on buildings of Types I, II, III, IV, and V construction under the IBC and construction permitted under the IRC

2.0 STATEMENT OF COMPLIANCE

Fastplank Siding System complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 Fastplank Siding System: Fastplank Systems are exterior wall coverings consisting of aluminum siding planks, fastening clips and trim accessories. The coated aluminum 16 ft. planks are extruded from 3/64 in. thick aluminum with a V-Notch™ profile. The planks are manufactured in 4 in. and 6 in. See Figure 1 for panel dimensions.

3.2 Fastening Clips: The fastening clips are illustrated in Figure 2. The clips are 1 in. wide aluminum extrusions. All additional trims are illustrated in Figure 3.

3.3 Fasteners: Fasteners are as noted in Table 2.

4.0 PERFORMANCE CHARACTERISTICS

4.1 Physical Properties: The Fastplank Siding System complies with the requirements of AAMA 1402.

4.2 Flame Spread: The Fastplank Siding System has a flame spread index not exceeding 25 and a smoke developed index not exceeding 450 when tested in accordance with ASTM E84.

4.3 Wind Resistance: Allowable negative wind design pressures are given in Table 2 for Fastplank Siding Systems installed in accordance with Section 5.0.

4.4 When installed in accordance with this report, the Fastplank Siding System complies with the requirements for weather protection as per IBC Section 1402.2 and IRC Section R703.1.1.

4.5 Non-combustibility: The Fastplank Siding planks have been tested in accordance with IBC 703.3.1 and meet the criteria as non-combustible materials.

4.6 Corrosion Resistance: The Fastplank Siding planks have been exposed to 1000 hours in accordance with ASTM B117 and displayed no visible deleterious effects.

5.0 INSTALLATION

5.1 General: The Fastplank Siding System must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 Application: The Fastplank Siding System shall be installed over an approved water-resistive barrier in accordance with Section 1403.2 of the IBC and Section R703.2 of the IRC. The water-resistive barrier is installed over OSB or plywood sheathing complying with IBC Section 2303.1.5 for wood-framed walls, and over gypsum sheathing complying with ASTM C1396 when installed over steel framing. See Table 2 for components and attachment.

The planks must be attached to framing using P22 clips and the fasteners described in Table 2.

For use in Types I, II, III, or IV construction on buildings greater than 40 feet above grade, evidence the water-resistive barrier complies with IBC Section 1402.5, Exception 2, or a report of testing in accordance with NFPA 285 and IBC Section 1402.5 for an assembly representative of the final construction, must be submitted to the building official.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 Wind design pressures determined from allowable stress design (ASD) in accordance with the applicable Code shall not exceed the allowable wind design pressures identified in Table 2.

6.3 Only those types of fasteners and fastening methods described in this report have been evaluated for the installation of the Fastplank Siding System. Other methods of attachment are outside the scope of this report.

6.4 The Fastplank Siding System is manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with AAMA 1402, ASTM E330, ASTM E331, ASTM E84, ASTM B117, and ASTM E136.

7.2 Intertek Listing Report "Fastplank - Aluminum Siding", on the Intertek Directory of Building Products.

8.0 IDENTIFICATION

The components of the Fastplank Siding System are identified with the manufacturer's name (Fastplank Inc.), the product name (P44V and P46V), the Intertek Mark as shown below, the Intertek Control Number, and the Code Compliance Research Report number (CCRR-0480).

9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2021 IBC SECTION	2021 IRC SECTION
Exterior Wall Performance Requirements	1402	R703.1
Materials	1403.5.1	-
Weather Protection	1402.2/1404.2	R703.3
Wind Load Resistance	1609	R703.1.2
Non-Combustibility	703.3.1	-

TABLE 2 – WIND RESISTANCE
Fastplank Siding System Allowable Negative Design Pressure (psf)

Profile	Framing	Fastening	Clip Spacing[2]	Minimum Sheathing[3]	Allowable Negative Design Pressure (ASD) (psf)[4,5]
P44V and P46V	2 x 4 SPF[1] #2 or BTR spaced 16 in. oc	#10 1-1/2 in. wood screws	32 in. oc staggered	7/16 in. OSB	70
	18 GA 33ksi, 3-5/8 in. x 1-5/8 in. steel stud spaced 16 in. oc	#12 1-1/2 in. metal screws		1/2 in. Exterior Gypsum	69

[1] Minimum Specific Gravity of 0.42
[2] Clips staggered 16 in. every second plank
[3] Sheathing must comply with the Code
[4] Allowable Negative Design Pressure based on the average ultimate load of the assemblies and a safety factor of 2
[5] Maximum wall height of 10 ft. Wall deflection limit of L/180

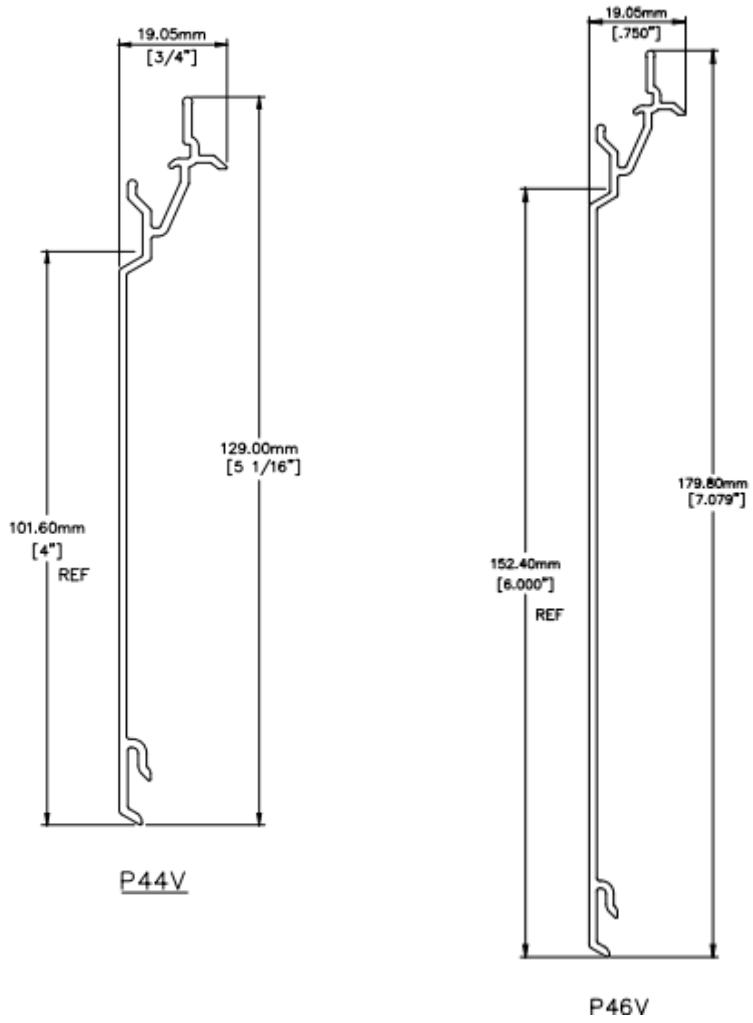
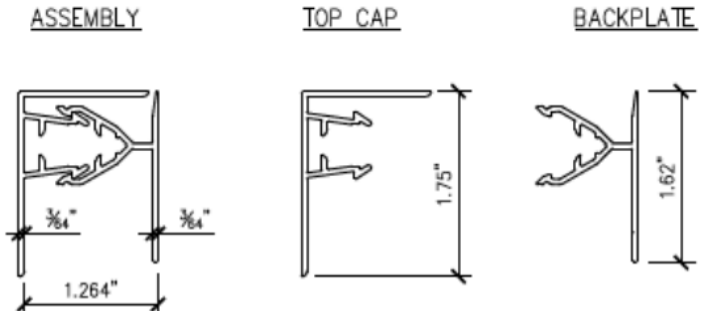


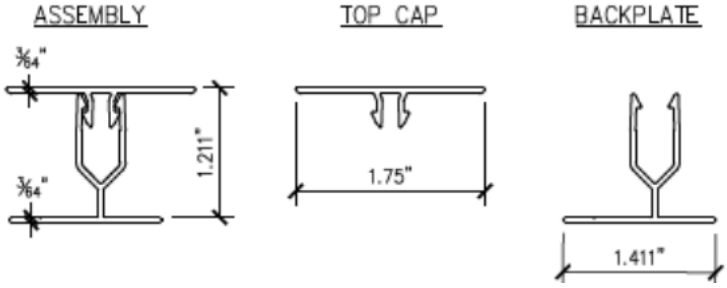
FIGURE 1 – PLANK DIMENSIONS

FIGURE 2 – FASTENING CLIPS

J-trim Clip



Vertical Trim



Perforated Starter Track

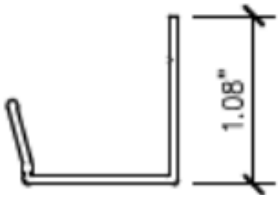


FIGURE 3 – TRIM AND ACCESSORIES

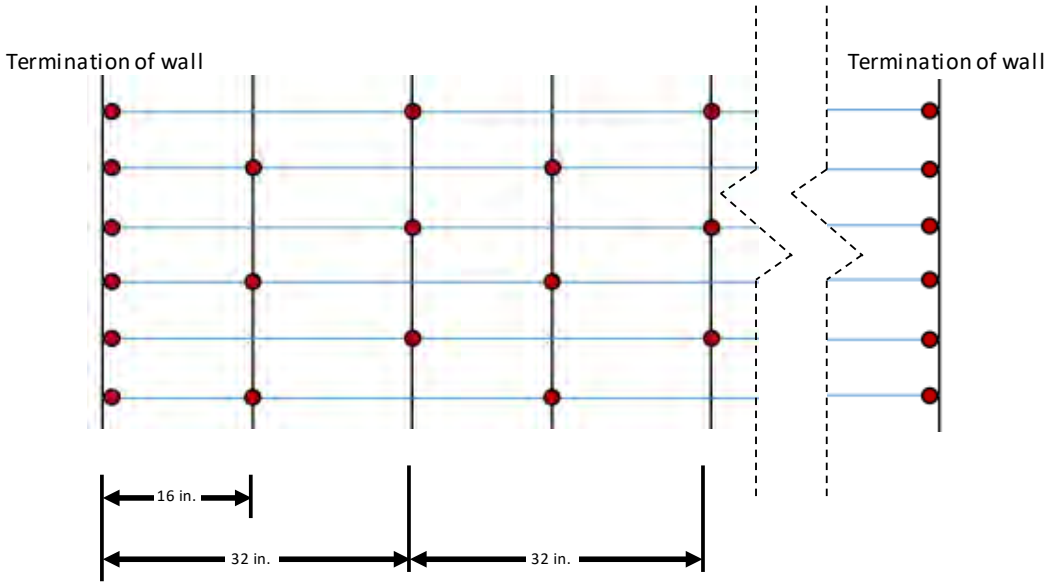


FIGURE 4 – CLIP INSTALLATION PATTERN

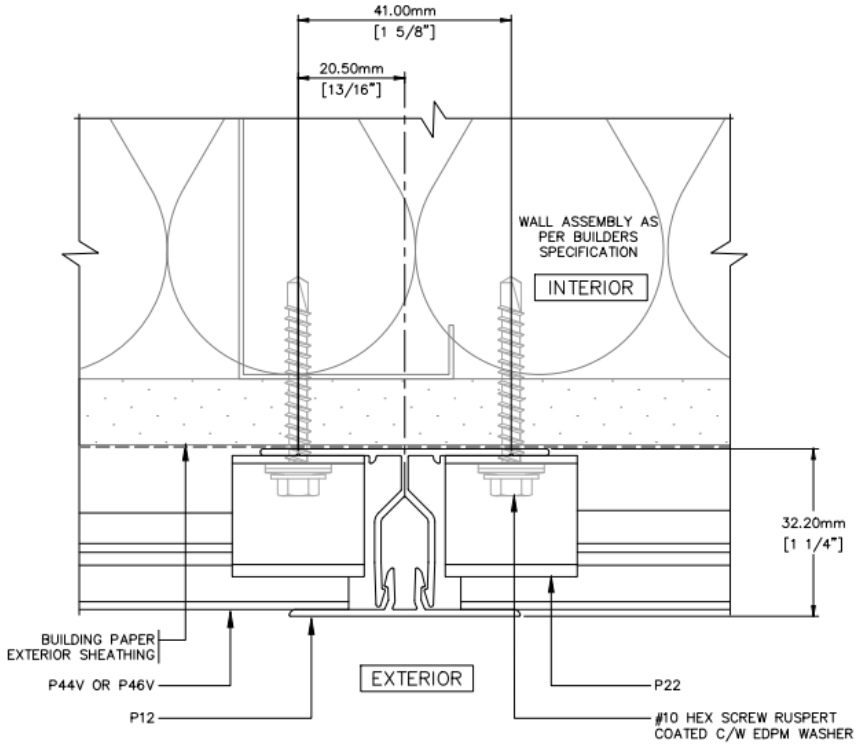
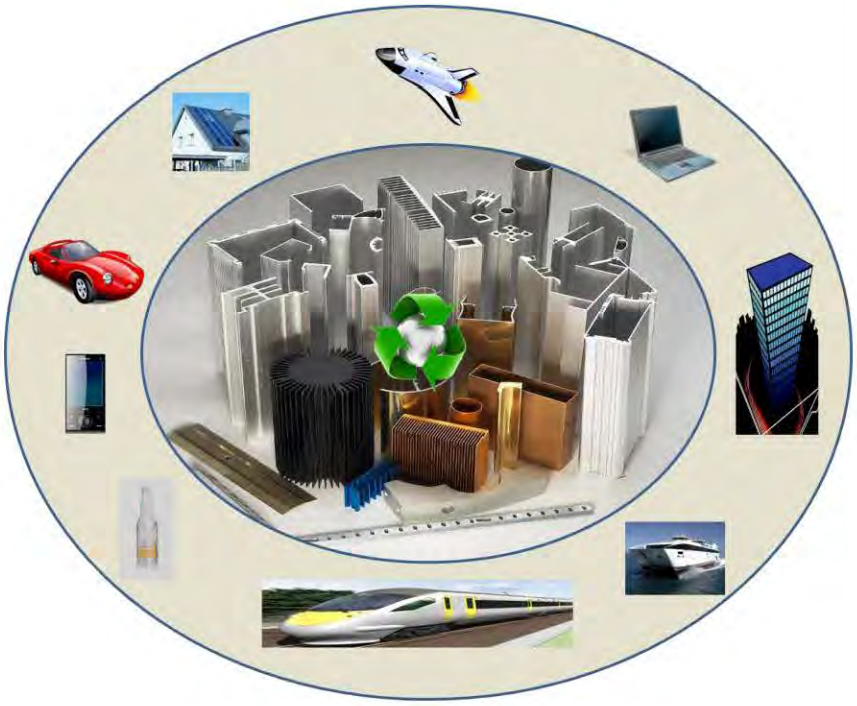


FIGURE 5 – TYPICAL INSTALLATION DETAIL

ENVIRONMENTAL PRODUCT DECLARATION

EXTRUDED ALUMINUM

INDUSTRY-AVERAGE EXTRUDED ALUMINUM
MANUFACTURED IN NORTH AMERICA



The Aluminum Association

The Aluminum Association and the aluminum industry are committed to responsible environmental stewardship. Aluminum is one of the most sustainable materials in use today:

- Strong and lightweight: Aluminum's favorable strength-to-weight ratio means it can be substituted for heavier materials, driving energy efficiency.
- Infinitely recyclable: Aluminum can be recycled over and over again without losing any of its fundamental properties.
- Efficiency Improvements: Through voluntary industry efforts, the North American aluminum industry has reduced the carbon footprint of primary aluminum production by 37 percent since 1995.
- Corrosion-resistant: Durable aluminum lasts longer than many competing materials, limiting the need for replacement.
- Highly recycled: Aluminum is one of the most recycled materials on the market today. And producing recycled aluminum takes just 8 percent of the energy needed to make primary aluminum.

UL CERTIFIED
ENVIRONMENTAL PRODUCT DECLARATION
UL.COM/EPD

ENVIRONMENTAL PRODUCT DECLARATION

The Aluminum Association

Extruded Aluminum Semi-Fabrication
Products of Aluminum and Aluminum Alloys

According to ISO 14025 and EN 15804

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

PROGRAM OPERATOR	UL Environment
DECLARATION HOLDER	The Aluminum Association
DECLARATION NUMBER	4786092064.102.1
DECLARED PRODUCT	Extruded Aluminum
REFERENCE PCR	Products of Aluminum and Aluminum Alloys (IBU, July 2012)
DATE OF ISSUE	October 16, 2014
PERIOD OF VALIDITY	5 years
EXTENSION PERIOD	August 16, 2022
CONTENTS OF THE DECLARATION	Product definition and information about building physics Information about basic material and the material's origin Description of the product's manufacture Indication of product processing Information about the in-use conditions Life cycle assessment results Testing results and verifications

The PCR review was conducted by:	The Independent Expert Committee
This declaration was independently verified in accordance with ISO 14025 by Underwriters Laboratories ☐ INTERNAL ☒ EXTERNAL	Wade Stout, UL Environment
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	Thomas Gloria, Industrial Ecology Consultants

This EPD conforms with EN 15804

The Aluminum Association

Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

Product

Product Description

This EPD covers the production of semi-fabricated and surface-finished aluminum extrusion products. The results represent an average across all extruded aluminum products manufactured in North America (United States and Canada). Averages are obtained thorugh aggregating production-weighted data from the participating data.

Applications

Extruded aluminum is used in a variety of market sectors, including the following:

- Transportation: automobile structures and components, truck and trailer structures and components, train structure and components, aircraft structure and components, etc.
- Building, construction and infrastructure: building windows, doors, curtain walls, facades, skylights, green houses, roof structures, furniture and decorations, solar device frames and structures, structure and components of bridges and stadiums, etc.
- Consumer durables: components of consumer durable goods, such as computers, home appliances, and recreation devices and utilities.

Technical Data

Name	Value	Unit
Density	2.66-2.84	$(kg/m^3) \times 10^3$
Melting point (Typical)	475-655	°C
Electrical conductivity (Typical) at 20°C/at 68°F	Equal Volume:16-36	MS/m (0.58*%IACS)
Thermal conductivity (Typical) at 25°c/at 77°F	113-234	W/(m.K)
Average Coefficient of thermal expansion (Typical) 20° to 100°c /68° to 212°F	22.3-23.9	per °C
Modulus of elasticity (Typical)	69-73	$MPa \times 10^3$
Hardness (Typical)	19-150	HB
Yield strength (min)	15-490	MPa
Ultimate tensile strength (min)	60-560	MPa
Breaking elongation (min) (50mm & 4D)	>4	%
Chemical composition	Varying alloy by alloy, Al 87.17-99.6	% by mass

Application Rules

ASTM B221-13/B221M-13 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes

ASTM B241/B241M-12e1 Standard Specification for Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube

ASTM B317/B317M-07 Standard Specification for Aluminum-Alloy Extruded Bar, Rod, Tube, Pipe, Structural Profiles, and Profiles for Electrical Purposes (Bus Conductor)

ASTM B345/B345M-11 Standard Specification for Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube for Gas and Oil Transmission and Distribution Piping Systems

ASTM B429/B429M-10e1 Standard Specification for Aluminum-Alloy Extruded Structural Pipe and Tube

ASTM B491/B491M-06 Standard Specification for Aluminum and Aluminum-Alloy Extruded Round Tubes for General-Purpose Applications

Delivery Status

The output of the extrusion process is a semi-fabricated and surface finished extrusion product transported to a component or final product manufacturer.

Base and Ancillary Materials

Extruded aluminum products made in North America contain a considerable proportion of metal recycled from aluminum scrap. The metal composition of products, based on metal feedstock information collected at the melting furnaces for extrusion billet making, is shown below. Products shipped to different market sectors may vary significantly on its metal compositions. Recovered aluminum from internal process (run-around) scrap is considered as a repeated closed-loop manufacturing process and therefore is excluded from metal composition declaration. Definitions of Internal Process (Run-Around) Scrap, Post-Industrial Scrap and Post-Consumer Scrap are consistent with ISO 14021/25 (2006) on environmental labels and declarations, and the related interpretations by UL Environment.

Extruded aluminum products may include various types of coatings, including anodized, painted, and laquered finishes. All coating materials are included in inventory, based on averages across the industry.

Category of Metal Source	Percentage (by mass)
Primary Aluminum (including alloy agents)	49
Recovered Aluminum from Other Post-Industrial Scrap	20
Recovered Metal from Post-Consumer Scrap	31

Manufacture

The extrusion process takes cast extrusion billet (round bar stock produced from direct chill molds) and produces extruded shapes. The process begins with an inline preheat that takes the temperature of the billet to a predetermined level depending on the alloy. The billet is then sheared if not already cut to length and deposited into a hydraulic press. The press squeezes the semi-plastic billet through a heated steel die that forms the shape. The shape is extruded into lengths defined by the take-off tables and is either water quenched or air cooled. The shape is then clamped and stretched to form a solid straightened length.

The straighten lengths are cut to final length multiples and may be placed in an aging furnace to achieve a desired temper. Lengths are then finished (drilled and shaped) and placed into a coating process. The types of coatings include anodized, painted, and lacquered finishes.

Environment and Health during Manufacturing

Air: Hazardous air emission releases comply with regulatory thresholds.

Water/soil: Pollutants in wastewater discharge comply with regulatory thresholds.

Noise: Due to adequate acoustical absorption and mitigation devices, measurements of sound levels have shown that all values inside and outside the production plant comply with regulatory thresholds.

Product Processing and Installation

Further processing and installation of extruded aluminum product depends on the final application of the product and is outside the scope of this EPD.

Packaging

Product delivery packaging includes wood, steel, paper board, and sometimes plastic wraps. Packaging is incuded in the scope of this EPD.

Condition of Use

No special conditions of use are relevant for this product under the scope of this EPD.

Environment and Health During Use

The environmental and health effects during use are dependent on the ultimate use of the extruded aluminum and are outside the scope of this EPD. The following general statements are relevant for all aluminum products:

- Aluminum products are often made from both primary and recycled ingots
- There is no relevant chemical composition difference between primary and secondary ingots if both are governed by the same alloy designation and chemical composition limit standards
- The service life of the final product depends on its application, but is typically long due to aluminum's excellent corrosion resistance
- For that same reason, maintenance needs during use are usually low.

Reference Service Life

Service lifes for aluminum extrusions vary based on the application. This EPD does not cover the product use phase and therefore makes no specific claim as to a typical reference service life.

Extraordinary Effects

Fire: Aluminum products comply with all local and federal laws with respect to fire hazards and control.

Water: There is no evidence to suggest water runoff or exposure under normal and intended operation will violate general water quality standards.

Mechanical desctruction: Not relevant for aluminum extrusions.

Recycling Phase

Aluminum is a highly recyclable material. During manufacturing, most process and new scrap are fed back into the production process. At the end of life, aluminum scrap is collected and sold to both secondary smelting and semi-fabrication companies. The recycling rate for aluminum scrap is assumed to be 95%. Recycling over 95% is typical for aluminum products in high volume automotive and construction market sectors (IAI 2013).

Post-industrial scrap is highly utilized within the aluminum industry. Most process and new scrap materials that occur in the manufacture and processing of extruded aluminum are fed back into the production process.

Disposal

It is assumed that 5% of the extruded aluminum products are sent to the landfill for disposal at the end of life. The European Waste Code for aluminum is 17 04 02.

Further Information

For further information on aluminum and aluminum products, please visit the Aluminum Association website: www.aluminum.org.

The life cycle assessment was conducted by PE INTERNATIONAL using GaBi data.

PE INTERNATIONAL
SUSTAINABILITY PERFORMANCE

Life Cycle Assessment

Declared Unit

The declared unit is the production and end-of-life treatment of one metric ton of extruded aluminum product. The results can be converted to one kilogram by dividing by 1000.

System Boundary

This is a "cradle-to-gate – with options" EPD. The following processes are considered in the product stages A1–A3 of the aluminum extrusion production:

- The provision of resources, additives and energy
- Transport of resources and additives to the production site
- Production process of extruded aluminum on site, including energy, production of additives, disposal of production residues, consideration of related emissions, and recycling of production scrap ("closed loop").

Product stages C4 and D are also included, with 95% of the extruded product assumed to be recycled at the end-of-life, and 5% disposed of by landfilling. End-of-life recycling is accounted for using the avoided burden recycling methodology.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED)																
PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport	Construction-installation process	Use	Maintenance	Repair	Replacement[1]	Refurbishment[1]	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X

Estimates and Assumptions

The LCA required only limited use of estimates and assumptions. The most relevant estimation/assumption is the end-of-life recycling rate of 95%, which is discussed in the *Recycling Phase* section. Averages and best-estimates were used to fill in minor data gaps, such as the source of ingots for some facilitites. Other estimates and assumptions are discussed in detail in the LCA background report.

Cut-off Criteria

Input: All material flows that enter the system and are over 1% of the product mass or contribute more than 1% to the primary energy consumption are included.

Output: All material flows that exit the system and whose environmental impact makes up more than 1% of the total impact in an impact category considered are included.

Background Data

In order to model the life cycle for the production of the extruded aluminum, the GaBi 6 software system developed by PE INTERNATIONAL was used. All relevant background data necessary for the production of cold-rolled aluminum were taken from the GaBi 2012 databases or were made available by the Aluminum Association through industry survey results. Companies participating in the project, either with AA or AIA, are provided in the *Participating Companies* section.

Data Quality

The data is considered of high quality. Inventory data quality is judged by its precision (measured, calculated or estimated), completeness (e.g., unreported emissions), consistency (degree of uniformity of the methodology applied on a study serving as a data source) and representativeness (geographical, temporal, and technological). To cover these requirements and to ensure reliable results, first-hand industry data in combination with consistent background life cycle inventories from the GaBi 2012 database were used.

The LCI data sets from the GaBi database are widely distributed and used with the GaBi 6 Software. The datasets have been used in LCA models worldwide in industrial and scientific applications in internal as well as in many critically reviewed and published studies. In the process of providing these datasets, they are cross-checked with other databases and values from industry and science.

Period under Review

Primary data collected from the participating companies and from their operational activities is representative for the year of 2010. Additional data necessary to model raw material production and energy generation, etc. were adopted from the GaBi 6.0 software system database.

During the survey, however, a small group of semi-fabrication facilities reported operational data for 2008, 2009, or 2011, depending on the time when they started to respond to the survey and the convenience of their data availability. This deviation from the defined reference year has been taken into account as it is being assumed that there are no radical changes in the technology and operational practice for semi-fabrications from the year 2008 to 2011. Additional data necessary to model raw material production, energy generation, etc. were adopted from the GaBi 2012 database with typical reference years between 2006 and 2010.

Allocation

Allocation is used to address recycled content, post-production scrap, and waste at end-of-life. The avoided burden allocation approach was applied. Under this approach, end-of-life scrap is first balanced out with any open scrap inputs into production. Only the remaining *net scrap* is then modeled as being sent to material recycling in order to avoid double-counting the benefits of using recycled content. If more scrap is recovered at product end-of-life than is required in the manufacturing stage, the product system receives a credit equal to the burden of primary material production minus the burden of recycling scrap into secondary material based on the mass of secondary material produced. This credit represents the avoided burden of primary material production.

Comparability

A comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to EN 15804 and the building context, respectively the product-specific characteristics of performance are taken into account.

ENVIRONMENTAL PRODUCT DECLARATION

The Aluminum Association

Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

Life Cycle Assessment: Results

Results given per one metric ton of extruded aluminum.

ENVIRONMENTAL IMPACTS

CML 2001 (Nov 2010)

		Manufacturing	End-of-Life	Credits
Parameter	**Unit**	**A1-A3**	**C4**	**D**
GWP	kg CO_2 eq	6.57E+03	2.17E+00	-4.13E+03
ODP	kg CFC-11 eq	4.14E-07	2.50E-10	-1.74E-07
AP	kg SO_2 eq	4.01E+01	8.86E-03	-2.95E+01
EP	kg PO_4^3 eq	1.90E+00	8.03E-04	-1.22E+00
POCP	kg C_2H_4 eq	2.21E+00	1.00E-03	-1.48E+00
ADPE	kg Sb eq	3.97E-03	8.03E-07	-2.20E-03
ADPF	MJ	7.13E+04	3.43E+01	-3.89E+04

TRACI 2.1

		Manufacturing	End-of-Life	Credits
Parameter	**Unit**	**A1-A3**	**C4**	**D**
GWP	kg CO_2 eq	6.57E+03	2.17E+00	-4.13E+03
ODP	kg CFC-11 eq	4.41E-07	2.66E-10	-1.85E-07
AP Air	kg SO_2 eq	3.75E+01	8.99E-03	-2.72E+01
AP Water	kg SO_2 eq	6.13E-02	9.08E-06	-2.23E-03
EP Air	kg N eq	6.62E-01	1.30E-03	-3.88E-01
EP Water	kg N eq	1.12E-01	7.69E-05	-6.22E-02
SP	kg O_3 eq	3.27E+02	1.40E-01	-2.10E+02
FF	MJ	5.91E+03	4.30E+00	-2.49E+03

RESOURCE USE

		Manufacturing	End-of-Life	Credits
Parameter	**Unit**	**A1-A3**	**C4**	**D**
PERE	[MJ]	3.12E+04	1.59E+00	-2.45E+04
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	3.12E+04	1.59E+00	-2.45E+04
PENRE	[MJ]	7.13E+04	3.43E+01	-3.89E+04
PENRM	[MJ]	0.00E+00	0.00E+00	0.00E+00
PENRT	[MJ]	7.13E+04	3.43E+01	-3.89E+04
SM	[kg]	4.26E+02	0.00E+00	0.00E+00
RSF	[MJ]	0.00E+00	0.00E+00	0.00E+00
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00
FW	[m^3]	1.37E+05	-8.20E+01	-1.07E+05

OUTPUT FLOWS AND WASTE CATEGORIES

		Manufacturing	End-of-Life	Credits
Parameter	**Unit**	**A1-A3**	**C4**	**D**
HWD	[kg]	1.69E+03	0.00E+00	-1.57E+03
NHWD	[kg]	7.82E+01	5.00E+01	-6.24E+01
RWD	[kg]	4.19E+00	4.42E-04	-2.35E+00
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	8.47E+00	9.50E+02	0.00E+00
MER	[kg]	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00

Glossary

Environmental Impacts

GWP	Global warming potential
ODP	Depletion potential of the stratospheric ozone layer
AP	Acidification potential
EP	Eutrophication potential
POCP	Photochemical oxidant formation potential
SFP	Smog formation potential
ADPE	Abiotic depletion potential for non-fossil resources
ADPF	Abiotic depletion potential for fossil resources
FF	Fossil fuel consumption

Resource Use

PERE	Renewable primary energy as energy carrier
PERM	Renewable primary energy resources as material utilization
PERT	Total use of renewable primary energy resources
PENRE	Non-renewable primary energy as energy carrier
PENRM	Non-renewable primary energy as material utilization
PENRT	Total use of non-renewable primary energy resources
SM	Use of secondary material
RSF	Use of renewable secondary fuels
NRSF	Use of non-renewable secondary fuels
FW	Use of net fresh water

Output Flows and Waste Categories

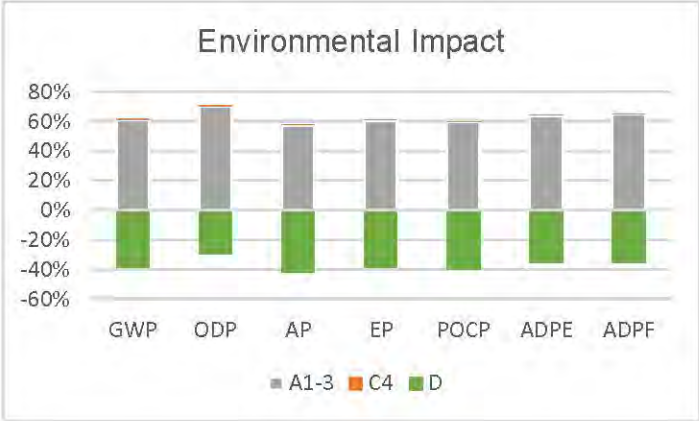
HWD	Hazardous waste disposed
NHWD	Non-hazardous waste disposed
RWD	Radioactive waste disposed
CRU	Components for re-use
MFR	Materials for recycling
MER	Materials for energy recovery
EEE	Exported electrical energy
EET	Exported thermal energy

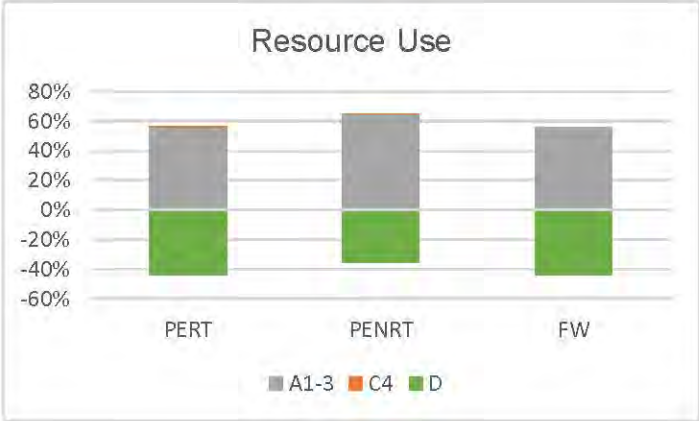
Life Cycle Assessment: Interpretation

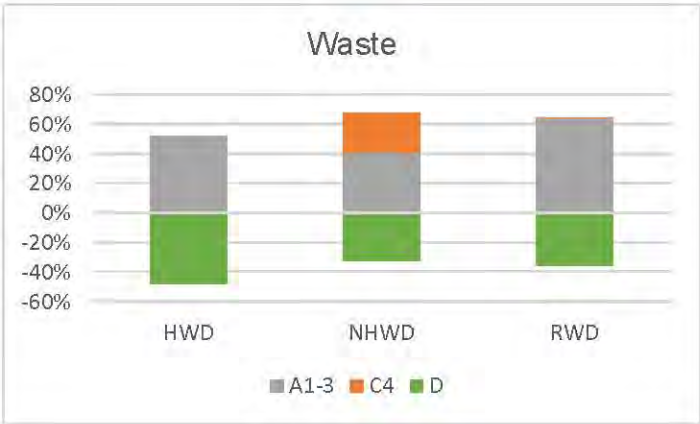
The results represent the cradle-to-gate and end-of-life environmental performance of a metric ton of extruded aluminum. The majority of the environmental impacts are from the production of the aluminum, however the credits from recycling the aluminum at end-of-life help to offset the initial burden.

As with any metal, the recycling rate has a significant impact on the life cycle environmental performance of extruded aluminum. A 95% recycling rate is assumed. Aluminum is an ideal material for recycling because the metal can be recycled over and over again without any loss in quality (AIA 2013).

Finally, it is interesting to note that the landfilling of extruded aluminum in C4 has a negative use of net fresh water (FW). This is due to the landfill collecting rain water and introducing it into the watershed as landfill leachate, following the blue water calculation methodology.







Participating Companies

Company	Data Category	Note
Alcoa Inc.	Bauxite, Alumina, Primary Aluminum, Recycled Aluminum, Hot and Cold Rolling, Extrusion	Includes Kawneer and Traco
Aleris International Inc.	Recycled Aluminum, Hot and Cold Rolling	
Alexandria Extrusion Company	Extrusion	
Century Aluminum Company	Primary Aluminum	
Constellium	Hot and Cold Rolling	At the time of data survey, it was owned by Rio Tinto Alcan
Grupo Cuprum	Recycled Aluminum, Extrusion	
Hydro Aluminum North America	Bauxite, Alumina, Recycled Aluminum, Extrusion	
Jupiter Aluminum Corporation	Recycled Aluminum, Hot and Cold Rolling	
Kaiser Aluminum	Recycled Aluminum, Hot and Cold Rolling, Extrusion	
KB Alloy	Recycled Aluminum	
Logan Aluminum	Recycled Aluminum, Hot and Cold Rolling	
Metal Exchange Corporation	Recycled Aluminum, Extrusion	
Minalex Corporation	Extrusion	
Nichols Aluminum	Recycled Aluminum, Hot and Cold Rolling	
Noranda Aluminum Inc.	Alumina, Primary Aluminum	
Novelis Inc.	Recycled Aluminum, Hot and Cold Rolling	
Ormet Corporation	Alumina, Primary Aluminum	
Peerless of America	Extrusion	
Penn Aluminum International LLC	Extrusion	
Rio Tinto Alcan	Bauxite, Alumina, Primary Aluminum	
Sapa Extrusions Inc.	Recycled Aluminum, Extrusion	
Scepter Inc.	Recycled Aluminum	
Sherwin Alumina	Alumina	
Smelter Service Corporation	Recycled Aluminum	
Tri-Arrows Aluminum Inc.	Recycled Aluminum, Hot and Cold Rolling	

References

EN 15804:2011-04: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

IAI (2013). *Global Life Cycle Inventory Data for the Primary Aluminum Industry*. London, International Aluminium Institute. 2013.

ISO 14025. DIN EN ISO 14025:2009-11: Environmental labels and declarations — Type III environmental declarations — Principles and procedures.

IBU (2011). Institut Bauen und Umwelt e.V., Königswinter (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report. 2011. www.bau-umwelt.de.

IBU (2012). PCR 2011 Part B. Institut Bauen und Umwelt e.V., Königswinter (pub.): Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part B: Requirements on the EPD for Products of Aluminium and Aluminium Alloys. 2012. www.bau-umwelt.de.

USGS (2011). *2010 Minerals Yearbook – Bauxite and Alumina*. Washington, D.C.: United States Geological Survey, Department of Interior. 2011.

FastPlank
by Engage Building Products

SCREENING DATE: 2025-11-12
PUBLISHED DATE: 2025-11-12
EXPIRY DATE: 2028-11-12
PREPARER: Self-Prepared

Health Product Declaration v3.0
created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 577718272
HPD UNIQUE PRODUCT ID: Not provided.
CLASSIFICATION: 07 46 16 Aluminum Siding
PRODUCT DESCRIPTION: A complete 4” or 6” V-Notch™ woodgrain 100% recyclable aluminum siding system for single-family homes, multi-family developments and commercial buildings.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format
→ Basic Method

Threshold Disclosed Per
→ Product

Threshold Level
→ 100 ppm

Residuals/Impurities Evaluation
→ Completed

Explanation(s) provided :
Yes

For all contents above the threshold, the manufacturer has:

Characterized Yes
Provided weight and role.

Screened Yes
Provided screening results using HPDC-approved methods.

Identified Yes
Provided name and CAS RN or other identifier.

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

PRODUCT | **MATERIAL OR SUBSTANCE** | *RESIDUAL OR IMPURITY*
GREENSCREEN SCORE | HAZARD TYPE

FASTPLANK [ALUMINUM LT-P1 | END | MAM | PHY **MANGANESE** LT-P1 | END | MUL | REP | MAM | AQU **CHROMIUM** LT-P1 | END | SKI | MAM | REP | RES **MAGNESIUM** LT-UNK | PHY | MAM | SKI | EYE **]**

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... LT-P1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Residuals/impurities in select raw materials are quantitatively measured, and are displayed in the HPD when greater than 100ppm.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

COMPLIANCE *See Section 3 for additional listings.*

VOC emissions: Inherently non-emitting source per LEED
LCA: Environmental Product Declaration (EPD) by UL

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Option 1.
Pre-checked for LEED v4 Option 2.
Pre-checked for LEED v4.1 Option 1.

Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- *Basic Inventory method with Product-level threshold.*
- *Nested Material Inventory method with Product-level threshold*
- *Nested Material Inventory method with individual Material-level thresholds*

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 3.0, available on the HPDC website at: www.hpd-collaborative.org/hpd-3-0-standard

FASTPLANK

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes

RESIDUALS AND IMPURITIES NOTES: Residuals/impurities in select raw materials are quantitatively measured, and are displayed in the HPD when greater than 100ppm.

OTHER PRODUCT NOTES: For more information on FastPlank products vist: https://fastplank.com/

ALUMINUM ID: 7429-90-5

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-11-12 12:28:03**

%: **85.0000 - 95.0000** GreenScreen: **LT-P1** RC: **Both** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
PHY	GHS - Japan	H261 - In contact with water releases flammable gas [Substances and mixtures, which in contact with water, emit flammable gases - Category 2]
PHY	GHS - Malaysia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
PHY	GHS - Australia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
PHY	GHS - New Zealand	Pyrophoric solids category 1

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2025 Children's Toy Products

SUBSTANCE NOTES: Category of Metal Source Percentage (by mass)
Primary Aluminum (including alloy agents) 49
Recovered Aluminum from Other Post-Industrial Scrap 20
Recovered Metal from Post-Consumer Scrap 31

MANGANESE

ID: **7439-96-5**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-11-12 12:28:03**

%: **0.0000 - 1.6000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Australia	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organ toxicity - repeated exposure - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 3
AQU	GHS - Japan	H401 - Toxic to aquatic life [Hazardous to the aquatic environment (acute) - Category 2]
AQU	GHS - Japan	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2025 Children's Toy Products

SUBSTANCE NOTES:

CHROMIUM

ID: **7440-47-3**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-11-12 12:28:03**

%: **0.0000 - 1.6000** GreenScreen: **LT-P1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
REP	GHS - New Zealand	Reproductive toxicity category 2
RES	GHS - Japan	H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled [Respiratory sensitization - Category 1A]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2025 Children's Toy Products
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2025 Cosmetics and Personal Care Products

SUBSTANCE NOTES:

MAGNESIUM

ID: **7439-95-4**

HAZARD DATA SOURCE: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2025-11-12 12:28:04**

%: **0.0000 - 1.2000** GreenScreen: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H260 - In contact with water releases flammable gases which may ignite spontaneously [Substances and mixtures which, in contact with water, emit flammable gases - Category 1]
PHY	EU - GHS (H-Statements) Annex 6 Table 3-1	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
PHY	GHS - Australia	H250 - Catches fire spontaneously if exposed to air [Pyrophoric liquids; Pyrophoric solids - Category 1]
SKI	GHS - Japan	H315 - Causes skin irritation [Skin corrosion / irritation - Category 2]
PHY	GHS - Australia	H260 - In contact with water releases flammable gases which may ignite spontaneously [Substances and mixtures which, in contact with water, emit flammable gases - Category 1]
EYE	GHS - Japan	H319 - Causes serious eye irritation [Serious eye damage / eye irritation - Category 2A]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES:

Section 3: Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS — **Inherently non-emitting source per LEED**

COMPLIANCE TYPE: Self-declared
ISSUE DATE: 2022-10-17
EXPIRY DATE: 2027-10-17
CERTIFIER/VERIFIER/TESTING LAB/AUDITOR: None
COMPLIANCE DETAILS:
COMPLIANCE SCOPE:
APPLICABLE FACILITIES: None
COMPLIANCE URL: https://engagebp.com/
COMPLIANCE NOTES:

LCA — **Environmental Product Declaration (EPD) by UL**

COMPLIANCE TYPE: Third Party
ISSUE DATE: 2016-10-01
EXPIRY DATE: 2027-09-27
CERTIFIER/VERIFIER/TESTING LAB/AUDITOR: UL
COMPLIANCE DETAILS:
COMPLIANCE SCOPE:
APPLICABLE FACILITIES: All
COMPLIANCE URL:
https://cdn.ymaws.com/www.aec.org/resource/resmgr/sustainability/epd/11-2022/102.1-thermally-improved.pdf
COMPLIANCE NOTES:

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

Section 5: General Notes

This HPD is provided solely for the intended recipient in connection with its assessment of products and for no other purpose. In providing information, Engage Building Products expresses no opinion and makes no representations as to the applicability, suitability, accuracy or completeness of the declaration form, or the standards, rules, classifications, warnings or criteria utilized or referenced therein. Information provided herein is qualified in the entirety by reference to the applicable product Material Safety Data Sheet (MSDS) which can be located at https://fastplank.com/installation-resources/

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Engage Building Products**
ADDRESS: **4441 76 Ave SE #101**
Calgary, Alberta T2C 2G8
COUNTRY: **Canada**

WEBSITE: **https://www.engagebp.com/**
CONTACT NAME: **Tracy Kelley**
TITLE: **Architectural Support Manager**
PHONE: **(877) 973-8746**
EMAIL: **tracy.kelley@engagebp.com**

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

Hazard Types

AQU Aquatic toxicity
CAN Cancer
DEV Developmental toxicity
END Endocrine activity
EYE Eye irritation/corrosivity
GEN Gene mutation
GLO Global warming
LAN Land toxicity
MAM Mammalian/systemic/organ toxicity
MUL Multiple
NEU Neurotoxicity
NF Not found on Priority Hazard Lists
OZO Ozone depletion
PBT Persistent, bioaccumulative, and toxic
PHY Physical hazard (flammable or reactive)
REP Reproductive
RES Respiratory sensitization
SKI Skin sensitization/irritation/corrosivity
UNK Unknown

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
BM-1 Benchmark 1 (avoid - chemical of high concern)
BM-U Benchmark Unspecified (due to insufficient data)
LT-P1 List Translator Possible 1 (Possible Benchmark-1)
LT-1 List Translator 1 (Likely Benchmark-1)
LT-UNK List Translator Benchmark Unknown
NoGS No GreenScreen.

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, www.greenscreenchemicals.org, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

Recycled Types

PreC Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Inventory Methods:

Nested Method / **Material Threshold** Substances listed within each material per threshold indicated per material
Nested Method / **Product Threshold** Substances listed within each material per threshold indicated per product
Basic Method / **Product Threshold** Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- *a method for the assessment of exposure or risk associated with product handling or use,*
- *a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.

intertek
Total Quality. Assured.

FAST PLANK INC.
TEST REPORT

SCOPE OF WORK
ASTM D6578 GRAFFITI RESISTANCE EVALUATION OF ALUMINUM SIDING PANELS

REPORT NUMBER
Q0000.01-106-31 R0

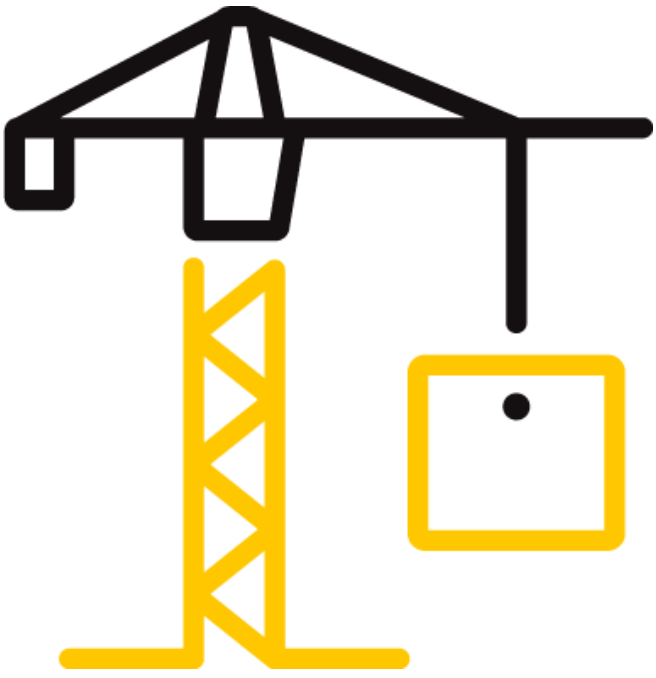
TEST DATES
07/10/23 - 07/14/23

ISSUE DATE
07/27/23

RECORD RETENTION END DATE
07/14/27

PAGES
11

DOCUMENT CONTROL NUMBER
RT-R-AMER-Test-2827 (07/12/22)



130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR FAST PLANK INC.
Report No.: Q0000.01-106-31 R0
Date: 07/27/23

REPORT ISSUED TO

FAST PLANK INC.
4441 76 Ave SE Suite 101
Calgary, Alberta T2C2G8

SECTION 1

SCOPE

Product: Aluminum Siding Panels

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Fast Plank Inc. to evaluate Aluminum Siding Panels in accordance with ASTM D6578 for Graffiti Resistance. Results obtained are tested values and were secured by using the designated test methods. Testing was conducted at the Intertek B&C test facility in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY:	Cag S. Saylor	**REVIEWED BY:**	Joseph M. Brickner
TITLE:	Technician II Materials Laboratory	**TITLE:**	Laboratory Supervisor Materials Laboratory
SIGNATURE:		**SIGNATURE:**	
DATE:	07/27/23	**DATE:**	07/27/23

CSS:jmb/kae

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 2
TEST METHODS

The specimens were evaluated in accordance with the following:

ASTM D6578-13 (reapproved 2018), *Standard Practice for Determination of Graffiti Resistance*

ASTM D523-14 (reapproved 2018), *Standard Test Method for Specular Gloss*

ASTM E1349-06 (reapproved 2022), *Standard Test Method for Reflectance Factor and Color by Spectrophotometry Using Bidirectional (45°:0° or 0°*:45°) *Geometry*

SECTION 3
MATERIAL SOURCE

The materials were provided by Fast Plank Inc. The following were received in good condition on 5/12/23:

- Ten (10), Aluminum Siding Panels measuring 12" x 7"

Refer to the product description photos in Section 9. The materials were tested as received, except for preparing test specimens from the original materials. Representative materials/test specimens will be retained by Intertek B&C for a minimum of four years from the test completion date.

SECTION 4
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Cag S. Saylor	Intertek B&C
Joseph M. Brickner	Intertek B&C

intertek
Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 5
TEST PROCEDURE

All conditioning of test specimens and test conditions were at standard laboratory conditions, unless otherwise reported. Refer to the test related photos in Section 9. Calibration certificates are available upon request.

ASTM D6578 - Graffiti Resistance
Panels were subjected to six different types of staining agents including:

- Solvent-Based Permanent Ink Marker, blue
- Solvent-Based Acrylic Spray Paint, red
- Solvent-Based Alkyd Spray Paint, red
- Wax Crayon, blue
- Ballpoint Ink, blue
- Water-based Ink Marker, black

The staining agents were applied to 1" x 1" areas and allowed to dry for 24 hours after application. Initial 60° gloss (gloss meter ICN:005609) and color readings (color IC machine ICN: INT03263) were taken according to methods ASTM D523 and ASTM E1347 respectively. After the 24 cure period staining agents were cleaned in the following progression:

- Dry cloth
- Wet cloth
- Mild detergent
- Isopropyl alcohol
- Mineral spirits
- Xylene
- Methyl ethyl ketone (MEK)

Once the areas were cleaned, they were again checked for gloss and color until they were with a 0.9 ratio for gloss and a Delta E value less than 2.

SECTION 6
TEST SPECIMEN DESCRIPTIONS

TEST PROCEDURE	NUMBER OF SPECIMENS	NOMINAL SPECIMEN DIMENSIONS
ASTM D6578 - Graffiti Resistance	3	12" x 7"

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 7
TEST RESULTS

ASTM D6578 - Graffiti Resistance

Specimen 1

GRAFFITI MARKER	RATING	INITIAL GLOSS	FINAL GLOSS	GLOSS RETENTION RATIO	DELTA E COLOR READING
Permanent Ink Marker, blue	8	16.0	17.4	0.92	0.11
Acrylic Spray Paint, red	8	16.7	17.8	0.94	0.01
Alkyd Spray Paint, red	8	16.7	17.9	0.93	0.72
Wax Crayon, blue	8	16.6	17.9	0.93	0.64
Ballpoint Ink, blue	8	16.2	17.7	0.92	1.72
Water-based Ink Marker, black	10	16.5	17.6	0.94	0.72
Requirement				**≥ 0.90 Meets**	**< 2 Meets**

Specimen 2

GRAFFITI MARKER	RATING	INITIAL GLOSS	FINAL GLOSS	GLOSS RETENTION RATIO	DELTA E COLOR READING
Permanent Ink Marker, blue	8	17.0	18.4	0.92	0.69
Acrylic Spray Paint, red	8	17.5	18.8	0.93	0.65
Alkyd Spray Paint, red	8	17.7	18.7	0.95	0.84
Wax Crayon, blue	8	17.4	17.9	0.97	0.85
Ballpoint Ink, blue	8	17.1	18.1	0.94	0.28
Water-based Ink Marker, black	10	17.1	16.1	1.06	1.76
Requirement				**≥ 0.90 Meets**	**< 2 Meets**

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR FAST PLANK INC.
Report No.: Q0000.01-106-31 R0
Date: 07/27/23

Specimen 3

GRAFFITI MARKER	RATING	INITIAL GLOSS	FINAL GLOSS	GLOSS RETENTION RATIO	DELTA E COLOR READING
Permanent Ink Marker, blue	8	16.8	17.5	0.96	0.87
Acrylic Spray Paint, red	8	16.7	18.2	0.92	0.72
Alkyd Spray Paint, red	8	16.3	17.9	0.91	0.86
Wax Crayon, blue	8	15.9	17.9	0.89	1.02
Ballpoint Ink, blue	8	16.1	17.9	0.90	0.44
Water-based Ink Marker, black	10	16.0	17.2	0.93	1.05
Requirement				**≥ 0.90 Meets**	**< 2 Meets**

RATING SCALE	CLEANING METHOD
10	Cleanable with a dry rag
9	Cleanable with detergent
8	Cleanable with isopropyl alcohol
7	Cleanable with mineral spirits
6	Cleanable with Xylene
5	Cleanable with MEK
4	Not cleanable, gloss loss
3	Not cleanable, slight shadow
2	Not cleanable, heavy shadow
1	Not cleanable, shadow and gloss loss

SECTION 8
CONCLUSION

The Aluminum Siding Panels met the specified performance requirements listed in ASTM D6578 for the testing performed in this report.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

SECTION 9
PHOTOGRAPHS

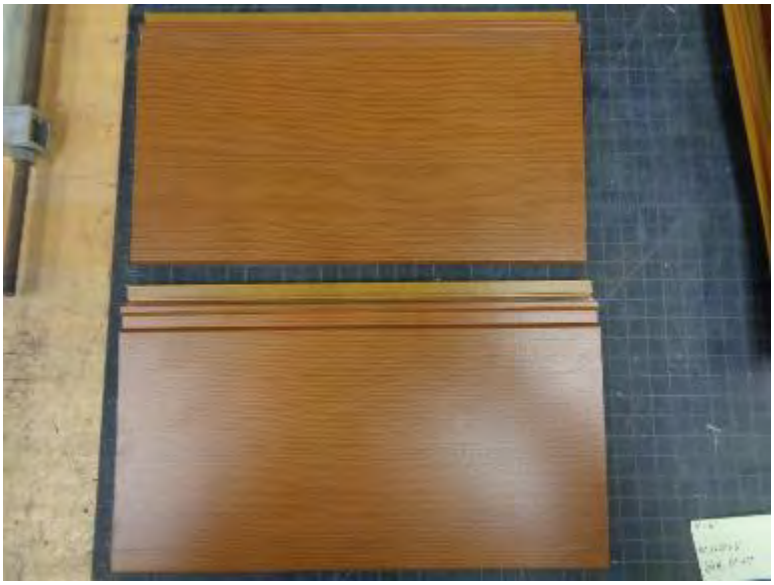


Photo No. 1
Material as Received

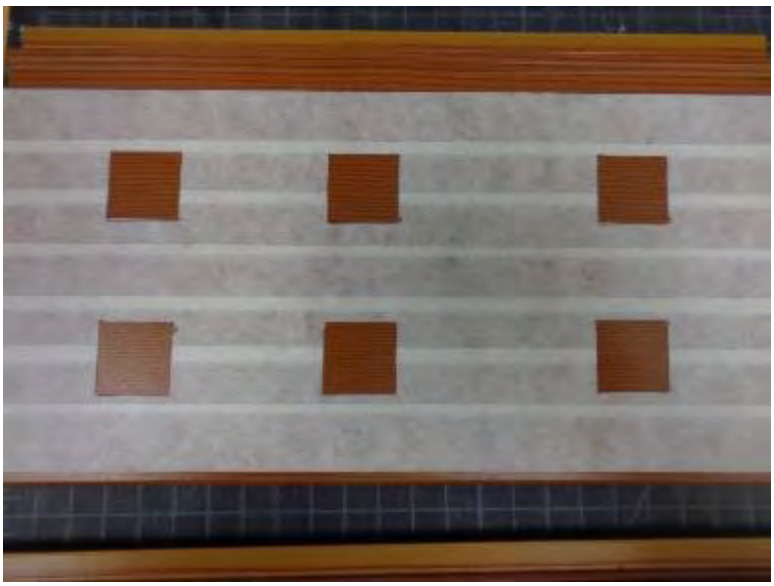


Photo No. 2
Panel with Areas Masked Off

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

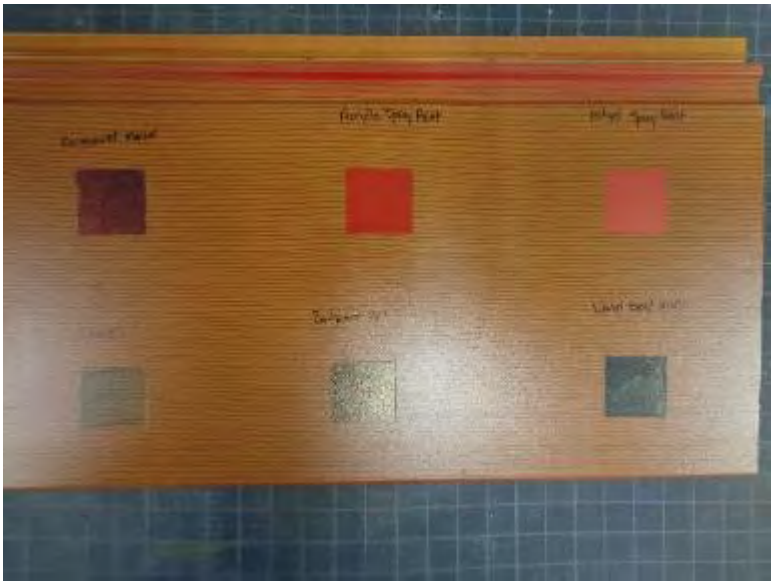


Photo No. 3
Panel with Graffiti

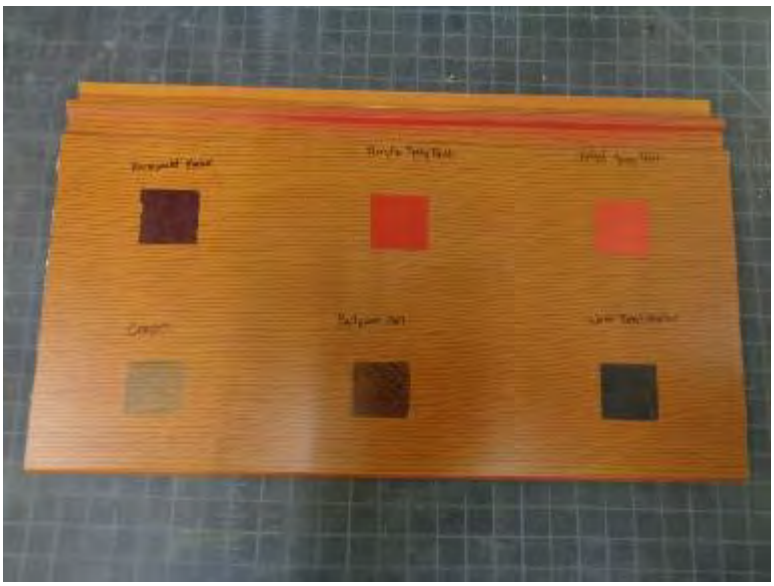


Photo No. 4
Panel with Graffiti

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

Photo No. 5
Panel Post Cleaning

Photo No. 6
Panel in Color IC Machine

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR FAST PLANK INC.
Report No.: Q0000.01-106-31 R0
Date: 07/27/23

Photo No. 7
Panel in Color IC Machine

Photo No. 8
Panel in Color IC Machine

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR FAST PLANK INC.
Report No.: Q0000.01-106-31 R0
Date: 07/27/23

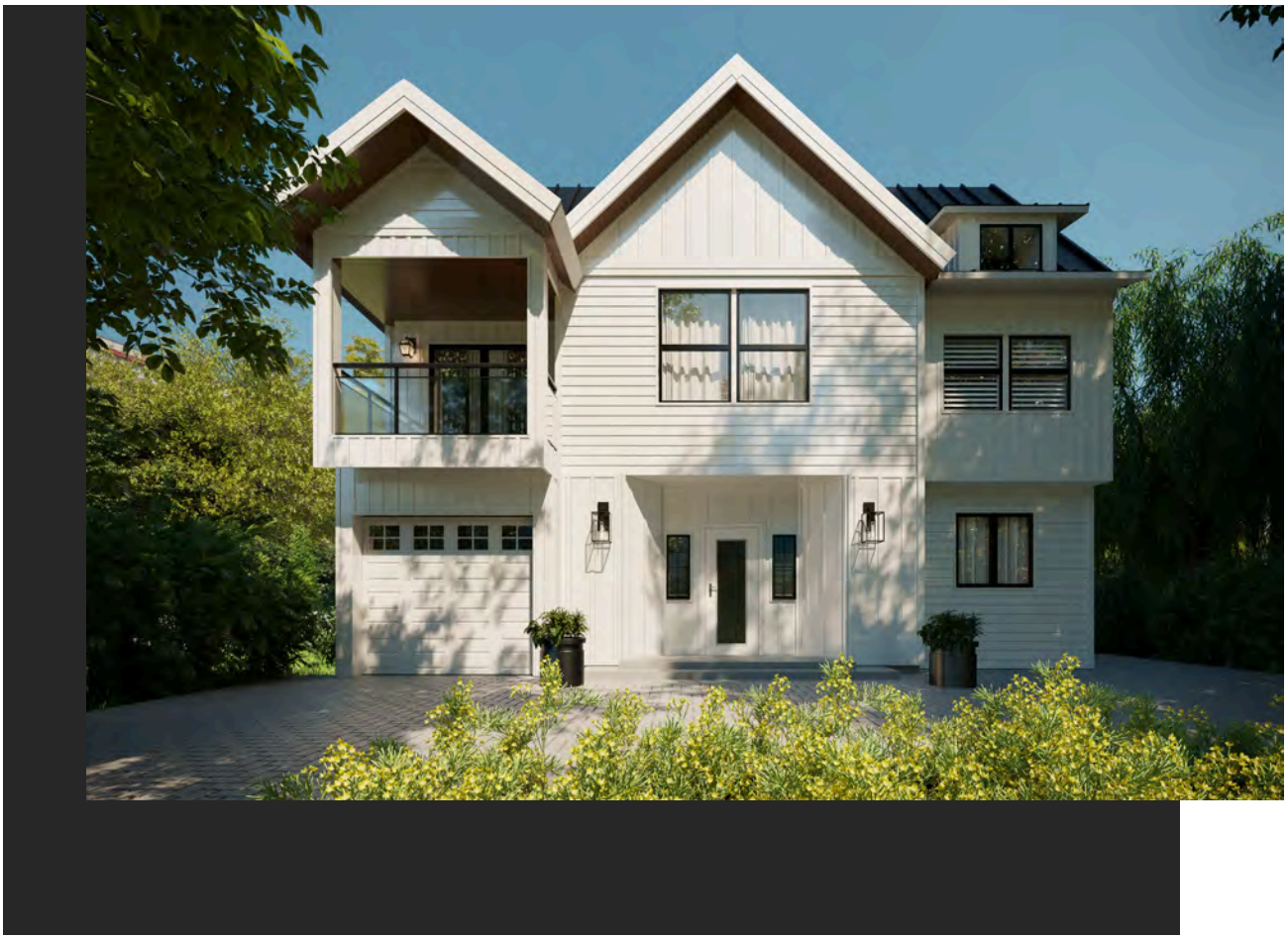
SECTION 10
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	07/27/23	N/A	Original Report Issue

ARCHITECTURAL FINS

INSTALLATION GUIDE

TABLE OF CONTENTS



PRODUCT DESCRIPTION

FastPlank® Systems are precision-extruded aluminum cladding solutions with a built-in rainscreen and concealed clip system engineered to accommodate natural expansion and contraction in all weather conditions. Finished with a premium architectural powder coat for exceptional durability, FastPlank delivers a clean, modern façade with no warping, oil canning, or visible fasteners—offering the warmth of wood with the longevity of aluminum.

FEATURES

- NON-COMBUSTIBLE
- NO FACE FASTENERS
- HAIL / IMPACT RESISTANT
- BUILT-IN MOISTURE MANGEMENT
- FADE RESISTANT
- ZERO MAINTENANCE

- Complete System Integrated
- Rainscreen Wind Load
- Tested Pressure Equalized
- Complimentary Color Samples
- No Obligation, Free Estimates
- Mock-up Material Available at No Charge

Installation Support

Our Installation Support Team is available for additional instruction, to ensure that your project is executed not only correctly, but efficiently – saving you time and money.

Please contact us at 1-877-973-8746 to reach our dedicated Installation Support Team .

Modern. Affordable. Durable.

Before You Get Started

- ✓ Follow your local building codes and project specifications.
- ✓ Wear appropriate safety equipment and ensure a safe work environment.
- ✓ Ensure that you have ALL the correct tools and they are in safe working order.
- ✓ Inspect all material for damage, defect, correct color.
- ✓ Verify your labels to ensure you have all the correct components for your order, each bag is labeled.

! Trim material will be received on a pallet (Figure 4.1). Pallet size may vary (typical pallet size is 10’ L x 33” W x 24”-32” T).

! Panels will be received on a pallet. Pallet size may vary depending on panel sizes required for the project. (typical pallet size is 8’ or 10’ or 16’ L x 64” W x 12”-20” T).

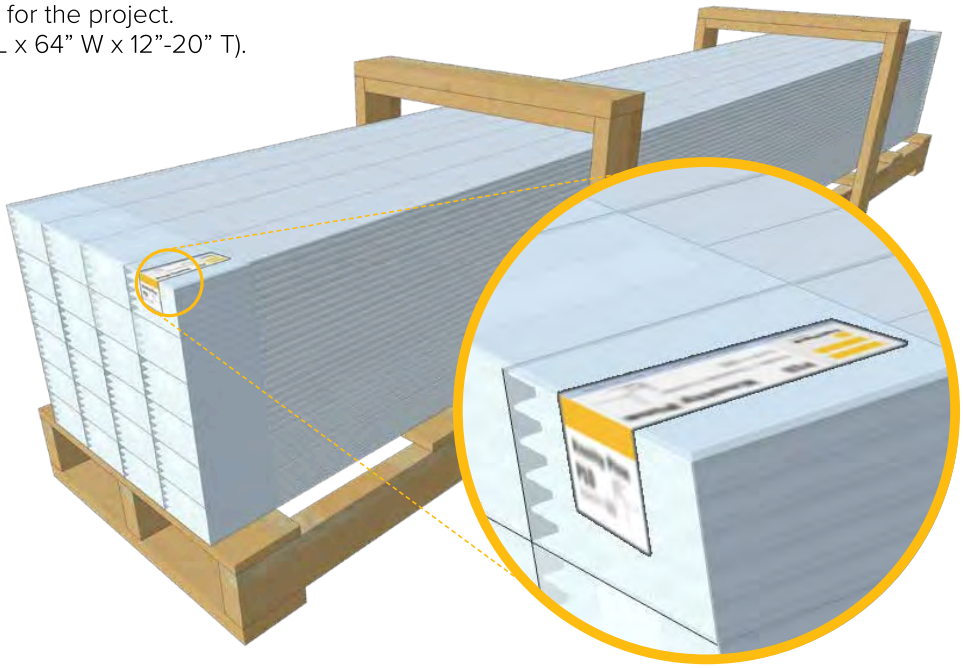


Figure 4.1

IMPORTANT:
Failure to complete all of these initial steps to get started may impact product performance, void the product and/or finish warranty, impact project time/budget, and increase the risk of personal injury .

Care & Maintenance

FastPlank® Systems are designed to be maintenance free and do not require any specific care or maintenance after installation. If needed, mild soap can be used to clean the surface.

Storage & Handling

Product may be stored outdoors; moisture and temperature will not damage aluminum. Do not stack other material on top of trims or planks. To avoid any unnecessary damage, do not slide or drag trims on the ground or against any abrasive surface.

Personal Protection Equipment (PPE)

We recommend the appropriate use and application of the following PPE during installation.

1. Steel Toe Boots
2. Cut Resistant Gloves
3. Safety Glasses
4. Hard Hat
5. Ear Protection
6. Safety Vest
7. Fall Protection
8. First Aid Kit
9. Dust Mask

WARNING
Consult your local safety codes and regulations.

Complete with every QuickPanel order, you'll receive the following to assist with installation:

1. QuickClips™

2. HammerBlock™ (available from Engage Building Products®)

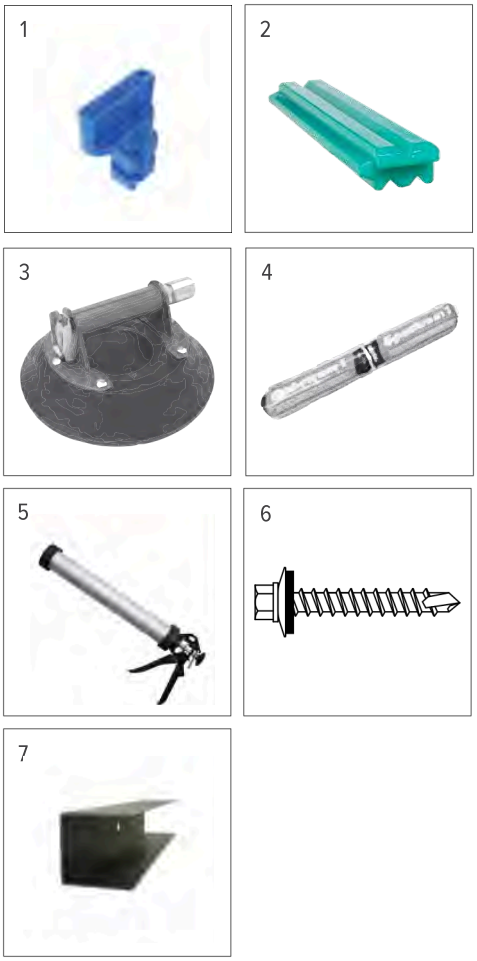
3. Industrial grade suction cup handles

4. Downsil® 995 silicone adhesive (sausage style)

5. Silicone adhesive gun / applicator (sausage style)

6. Hex screws - length and type (ex . wood or metal) will be determined by each jos's substrate

7. Rainscreen furring spacers (60-QP-A, 60-QP-R)



Tools & Accessories

The following general tools will also be required for installation:

1. 2" Rigid Foam
2. Mitre saw with non-ferrous metal cutting
3. Power cord
4. Impact driver / drill, with appropriate bits
5. Drill bit set
6. Carpenter's pencil
7. Chalk line
8. Level - 4ft - 2ft
9. Carpenter's Square
10. EasyTrim Reveals® HammerBlock®
11. Hammer
12. Rubber dead blow hammer
13. Tape measure
14. Torpedo level
15. Utility knife
16. Needle nose pliers / flat bar
17. Pry bar
18. Tin snips
19. Laser

System Info

Most trims are a two piece design. Each will have a back plate that is installed prior to Plank installation and a top cap that is clipped into the back plate after the Planks have been installed.

The Plank Clip allows for expansion of the Planks which prevents buckling and bowing . (Figure 9 .1)

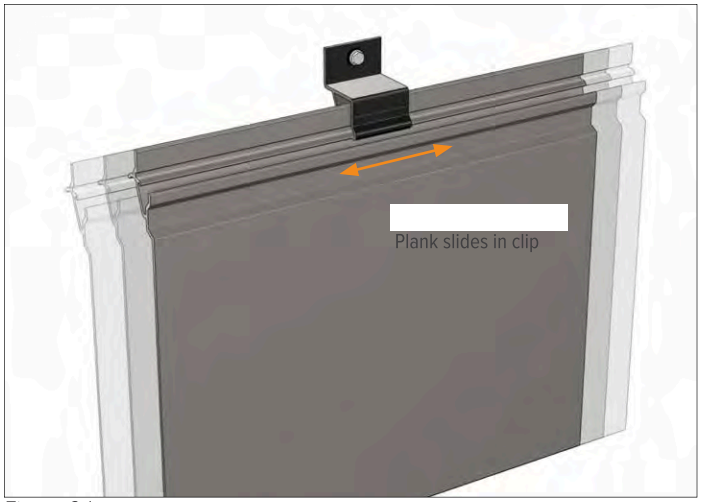
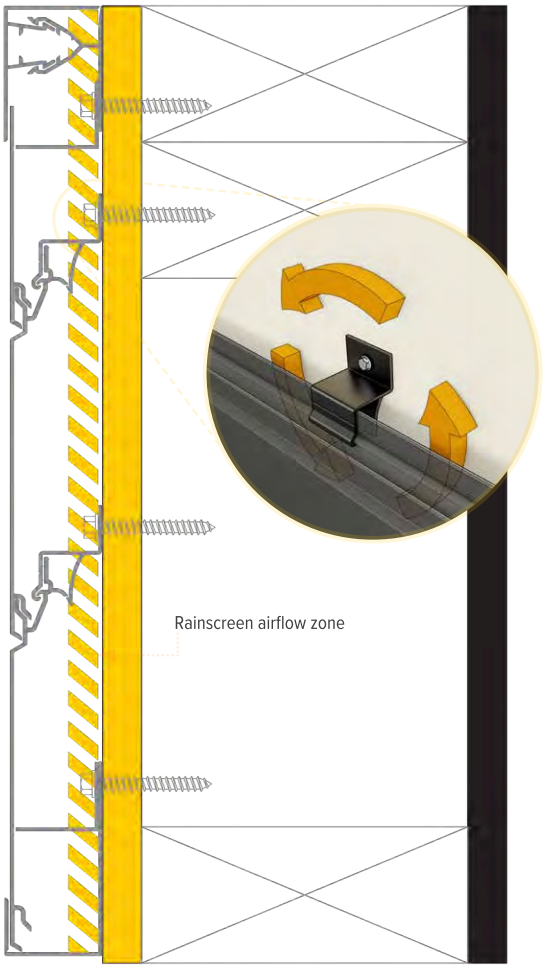


Figure 9.1

Installation Support: 1-877-973-8746

Rainscreen: The clip holds the Plank off the wall to create a built in rainscreen without the need for addition furring strips .



Installation of the Architectural Fins system shall comply with this installation guide and Intertek code compliance research report CCRR-0480.

Wall Preparation

Follow local building codes or jobsite-specific requirements for all primary flashing details before starting FastPlank® install.

Figure 10.1

Ensure the proper air & water barrier (AWB) has been installed as per your local building code and project specifications (Figure 10.2)

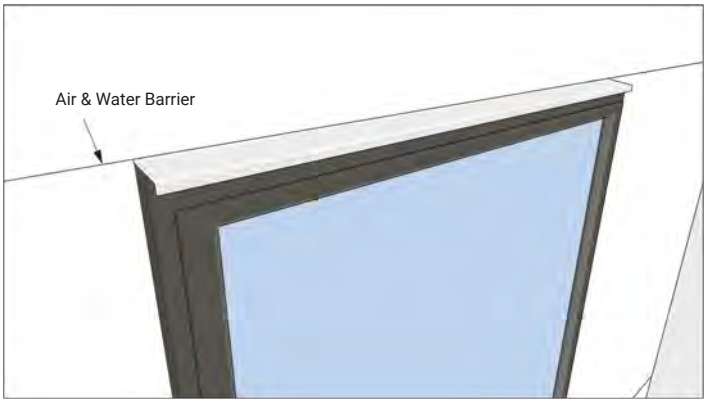


Figure 10.2

Identify your substrate material:

- Wood substrate
- Wood furring
- Metal substrate
- Metal furring (hat track / girts)
- Plastic furring strips

Note: If you have questions about your substrate material or alternative substrate fastening scenario – please contact installation support at 1-877-973-8746

Using Furring Strips

When installing two-piece trim profile assemblies on top of furring strips, a continuous furring strip is required to ensure proper engagement of the trims. (Figure 10.3)

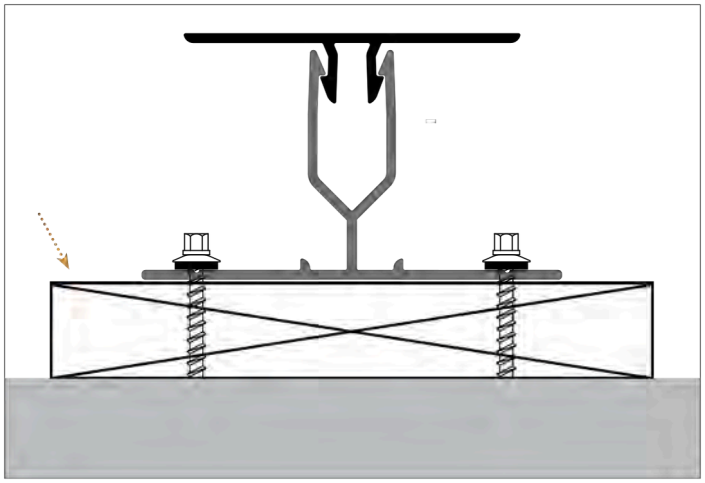


Figure 10.3

ATTENTION

Refer to your local building codes and project specifications for AWB and primary flashing detail.

Expansion & Contraction Requirements

All planks need to have a gap between the end of the plank and the wall of the trim (Figure 9 .1) . To determine the amount of total gap needed, use the chart on the right by cross referencing the Plank Length and the Ambient Temperature at the Time of Install . To cut a plank measure the space between the trims and reduce the measurement by the total gap then install the plank centered between the trims so that the total gap is split equally at each end.

	Ambient Temperature at Time of Install		
	-10°C (14°F)	10°C (50°F)	30°C (86°F)
Plank Length	Maximum Measurement		
16′	-10mm (-3/8″)	-8mm (-5/16″)	-6mm (-1/4″)
32′*	-20mm (-3/4″)	-16mm (-5/8″)	-12mm (-1/2″)

Note: *Planks come in 16' length and can be joined together with a Plank Connector for a maximum length of 32'*

Example:

	Ambient Temperature at Time of Install		
	-10°C (14°F)	10°C (50°F)	30°C (86°F)
Plank Length	Maximum Measurement		
16′	-10mm (-3/8″)	-8mm (-5/16″)	-6mm (-1/4″)
32′	-20mm (-3/4″)	-16mm (-5/8″)	-12mm (-1/2″)

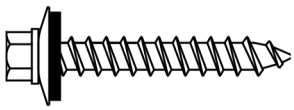
Figure 11.1

IMPORTANT
Failure to properly allow for contraction and expansion in your fifield cuts may cause buckling and void the product warranty. (Figure 11.1)

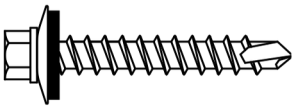
Fastener Info

Substrate Type

Wood
Use system fastener 1-1/2″ WS112 FastPlank screw



Metal
Use system fastener 1-1/2″ MS112 or ¾″ MS34 FastPlank screw



Do Not use an impact drill to fasten to steel studs. This can strip the screws causing them to no longer hold the plank in place.

Basic Installation Process

A completed Fixed Architectural Fins installation.

Basic Install Process

Step 1: Install Backplates

Fasten backplates to the wall or approved substrate.
- Use two attachment points at each end
- Fasten every 16" on center, alternating attachment points

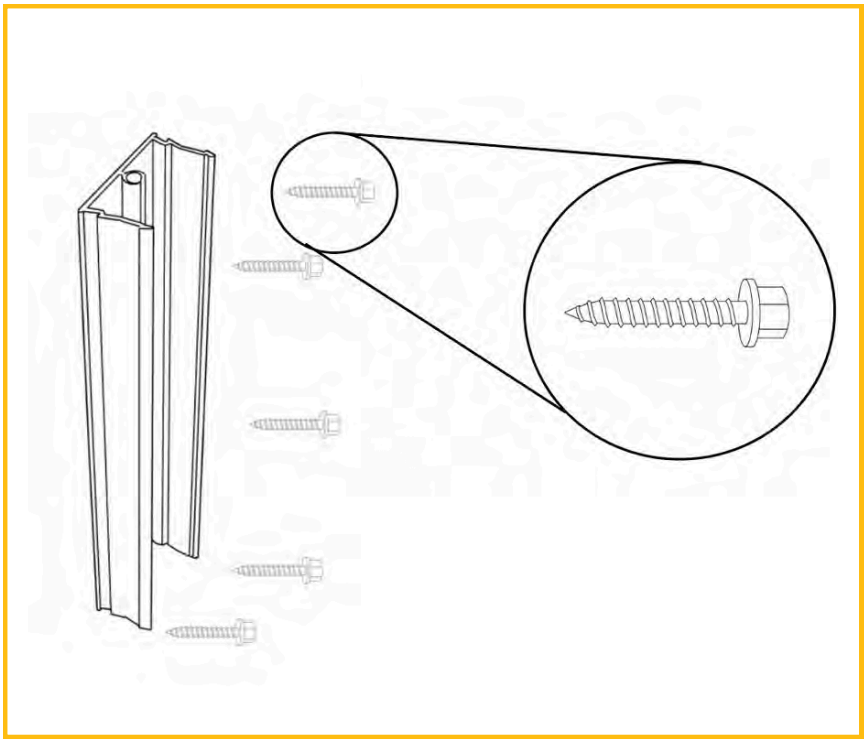


Figure 12.1

Step 3: Install Top Caps

Snap the top caps securely onto the backplates.

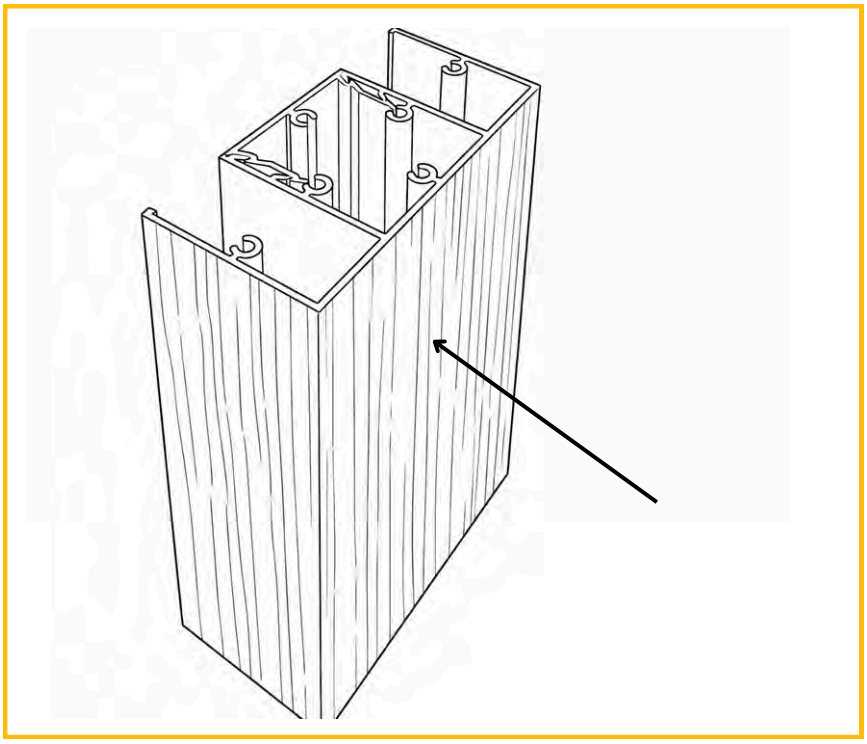


Figure 12.2

Basic Install Process (Continued)

Step 4: Install End Caps

- Fasten end caps to the top caps using approved screws..

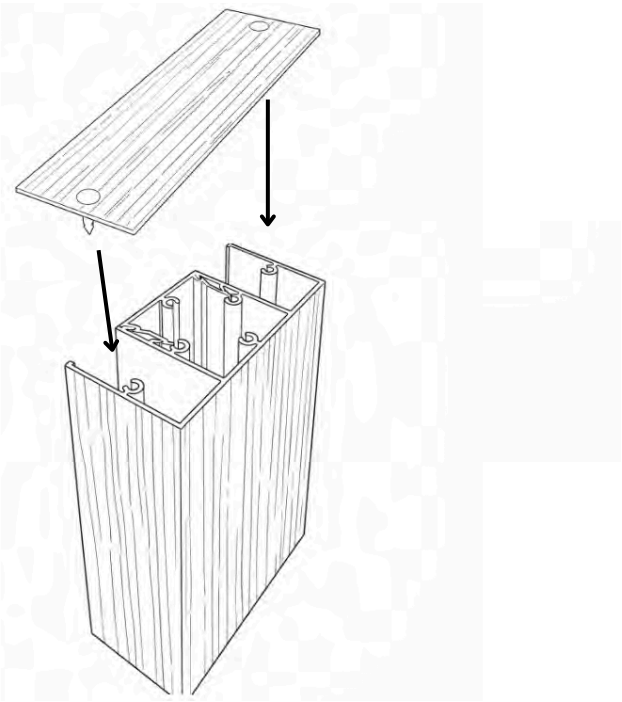


Figure 12.3

Installation of the board and batten system will be performed by qualified and experienced installers in accordance with the project specifications and industry standards.

Warranty

The FastPlank® System 50-Year Limited Warranty is extended to original purchasers of the FastPlank® System. This Warranty is for the benefit of the original property owner who purchased the product and is not transferable.

FastPlank® System, when properly installed and maintained according to the published guidelines the product is warrantied for a period of fifty (50) years from the date of installation from physical defects.

This FastPlank® Limited Warranty provides the following coverage:
a) splitting or cracking, or sustained excessive deformation of the product under normal conditions of use; and,
b) to be free of any buckling of the product itself that is not associated with the substrate and/or structure to which the FastPlank V-NOTCH™ System is attached. For the purpose of this warranty, buckling shall be defined as warping of the product(s) exceeding one eighth of an inch out of plane per linear foot.
If FastPlank® Systems Inc., after inspection and verification, determines that the product failed under the terms of this limited warranty, FastPlank® Systems Inc. will provide, at its option, replacement parts or components to the dealer specified by the original purchaser at no cost. FastPlank® Systems Inc. will not be responsible for installation or labor costs either prior to or during remediation.

What is not covered:
• Damage caused by improper installation, use, application or maintenance.
• Damage to the system caused by handling, shipping, processing, storage, installation and/or improper cleaning.
• Damage from contact with harmful chemicals, fumes, or vapors.
• Normal weathering, chalking, fading, atmospheric pollutants or mildew build-up.
• Damage from settlement, shrinkage, or distortion of the structure.
• Pre-finished or field applied coatings.
• Acts of God, fire and casualty; and
The limited product and finish warranties set forth are the only warranties (whether written or oral) applicable to FastPlank® Systems.

FASTPLANK® SYSTEMS INC MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED AND MAKES NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE REMEDIES STATED WITHIN ARE YOUR SOLE AND EXCLUSIVE REMEDY AND FASTPLANK® SYSTEMS INC. WILL NOT BE RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RELATING TO YOUR PURCHASE OR USE OF FASTPLANK® SYSTEMS INC. PRODUCTS. FASTPLANK® SYSTEMS INC. LIABILITY IN ALL INSTANCES WILL BE LIMITED TO REPLACEMENT OF MATERIAL BASED ON PURCHASE DATE AND WARRANTY CLAIM DATE.

This warranty is applicable in Canada, the United States, the European Union, and Australia. Some states do not allow for the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state, and from country to country.

HOW TO GET HELP IF YOU HAVE A WARRANTY CLAIM
To obtain help with a warranty claim, contact the dealer, distributor or building products supplier where the FastPlank® System were purchased originally. If, after thirty (30) days you have received no response to your concerns, then contact FastPlank® Systems Inc. via email sending your email to warranty@FastPlank.com.

Please include the following documentation:
1. FastPlank® V-NOTCH™ System's, date and place of purchase, and purchase price (proof of purchase required).
2. Describe the problem (photographs are required).
3. Describe any action you have taken, or those persons contacted to correct the problem.
4. Give your name, phone number and address where the product can be inspected.

1-877-973-8746 | warranty@fastplank .com

ENGAGE
BUILDING PRODUCTS®

Smart Minds.
Smart Materials.

+1 877 973 8746
info@engagebp.com
engagebp.com/fastplank