

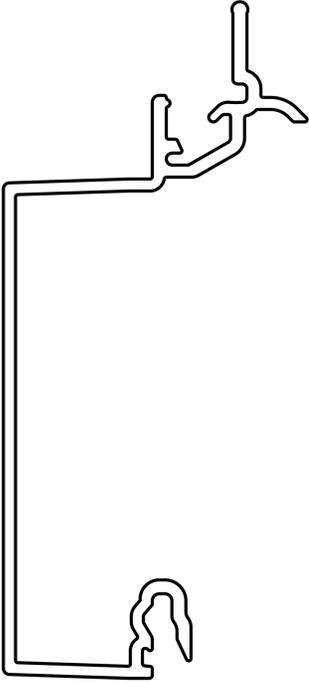


BOARD & BATTEN

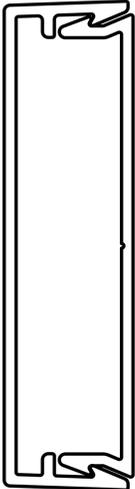
SUBMITTAL PACKAGE



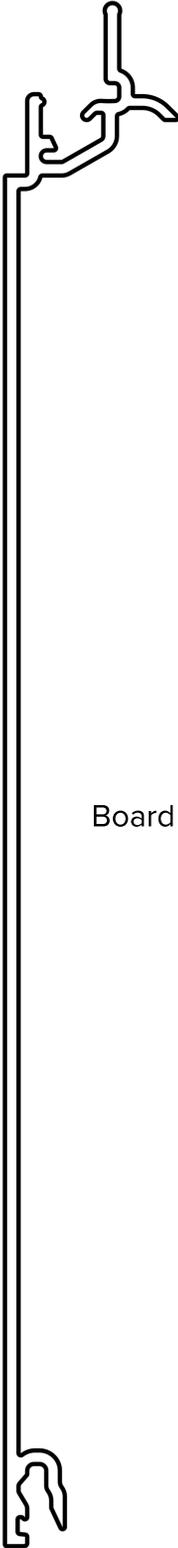
BOARD & BATTEN



Batten



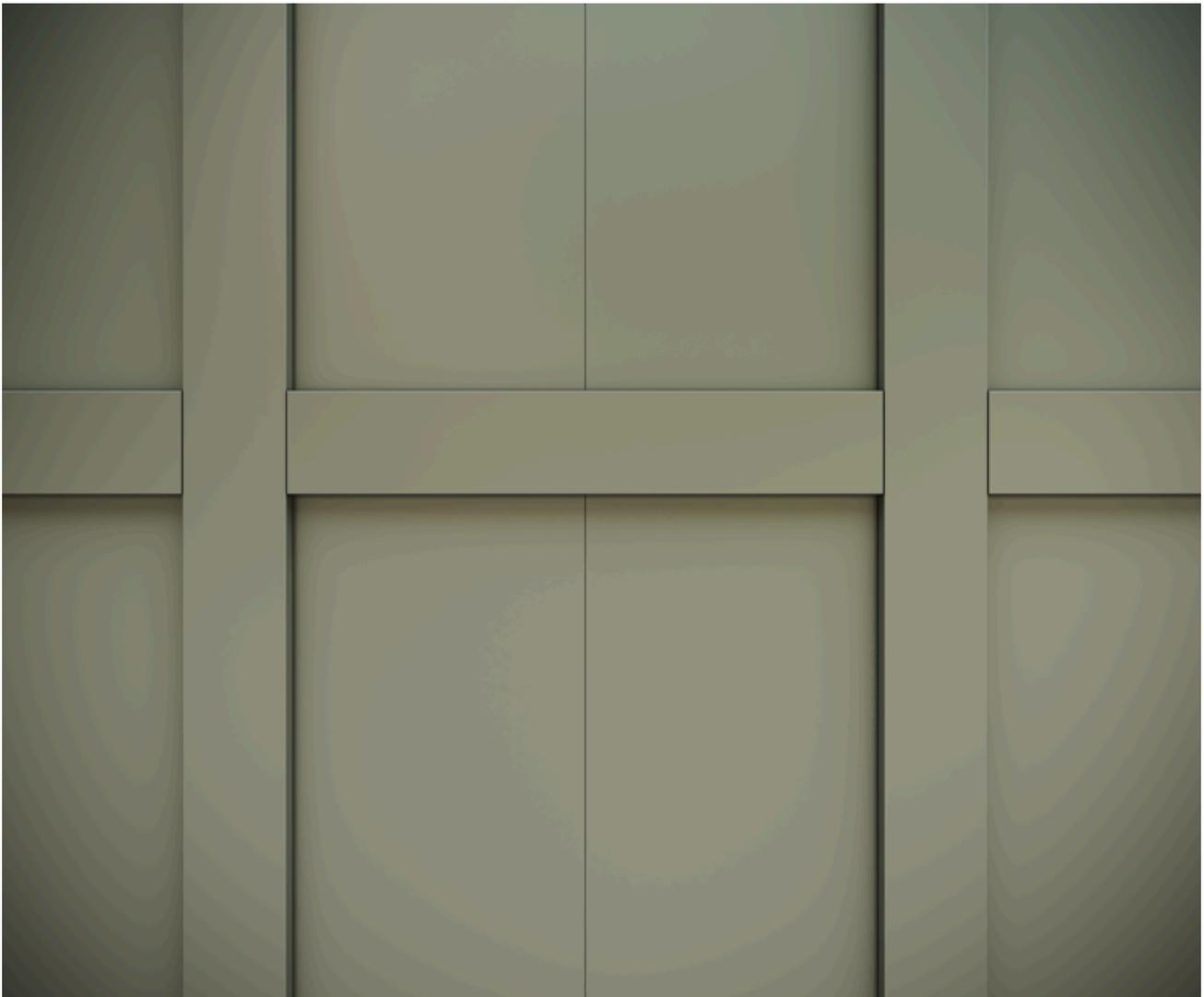
Surface Mount Batten



Board

Deviation Statement

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



WHAT'S INSIDE

| | |
|-----------------------------------|---------------|
| Submittal Form | ...Page 4 |
| Profile Legend | ...Page 5-7 |
| Gallery | ...Page 8-10 |
| Color Options | ...Page 11-12 |
| Typical Details | ...Page 13-26 |
| Cut Sheet | ...Page 27 |
| Specifications | ...Page 28-35 |
| Code Compliance Research Report | ...Page 36-41 |
| Environmental Product Declaration | ...Page 42-55 |
| Health Product Declaration | ...Page 56-62 |
| Graffiti Resistance Evaluation | ...Page 63-73 |
| Installation Guide | ...Page 74-92 |

SUBMITTAL FORM



Date

Date Due

Project Name

To

From

Subcontractor

Key #

Description:

| | |
|--|--|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

Notes: _____

Submitted by

Signature

STARTERS

BB1-0

| | |
|---|---|
|  |  |
| Bold Starter Add-on | |
|  | |
| Bold Starter | |
|  | |
| Bold Starter End Cap | |

BB1-1



Perforated Starter

OUTSIDE CORNERS

BB2-0

| | |
|--|--|
|  |  |
| Backplate | |
|  | |
| Top Cap | 2-1/8" Low Profile Outside Corner |

BB2-1

| | |
|--|--|
|  |  |
| Backplate | |
|  | |
| Top Cap | 2-1/8" Bold Outside Corner |

BB2-2

| | |
|--|---|
|  |  |
| Backplate | |
|  | |
| Top Cap | 2-1/8" Surface Mount Outside Corner |

BB2-3

| | |
|--|--|
|  |  |
| Backplate | |
|  | |
| Top Cap | 2-1/8" Bold Surface Mount Outside Corner |

BB2-4

| | |
|---|---|
|  |  |
| Backplate | |
|  | |
| Top Cap | 4" Bold Outside Corner |

BB2-5

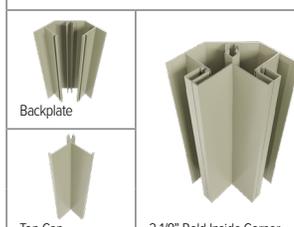
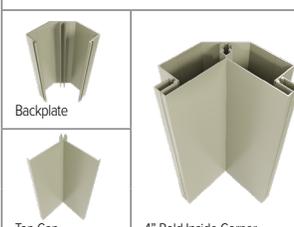
| | |
|---|---|
|  |  |
| Backplate | |
|  | |
| Top Cap | 4" Bold Surface Mount Outside Corner |

BB2-6

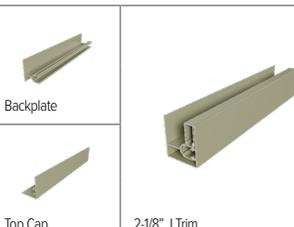
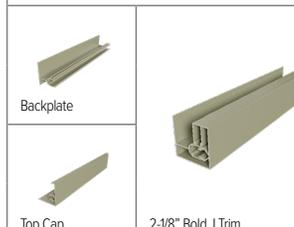
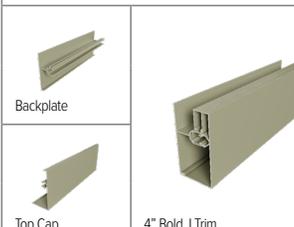


4" Adjustable Outside Corner

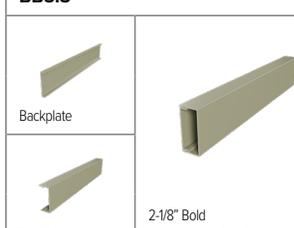
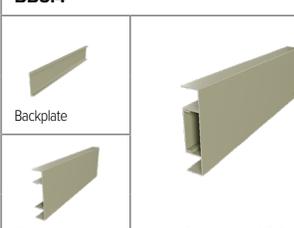
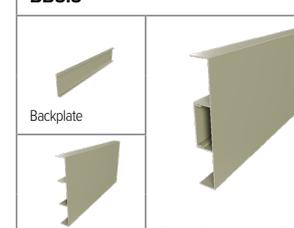
INSIDE CORNERS

| | | | | |
|---|--|---|--|---|
| <p>BB3-0</p>  <p>Backplate</p> <p>Top Cap</p> <p>2-1/8" Low Profile Inside Corner</p> | <p>BB3-1</p>  <p>Backplate</p> <p>Top Cap</p> <p>2-1/8" Bold Inside Corner</p> | <p>BB3-2</p>  <p>Backplate</p> <p>Top Cap</p> <p>4" Bold Inside Corner</p> | <p>BB3-3</p>  <p>2-1/8" Low Profile Adjustable Inside Corner</p> | <p>BB3-4</p>  <p>2-1/8" Bold Adjustable Inside Corner</p> |
|---|--|---|--|---|

J TRIMS

| | | |
|--|---|--|
| <p>BB4-0</p>  <p>Backplate</p> <p>Top Cap</p> <p>2-1/8" J Trim</p> | <p>BB4-1</p>  <p>Backplate</p> <p>Top Cap</p> <p>2-1/8" Bold J Trim</p> | <p>BB4-2</p>  <p>Backplate</p> <p>Top Cap</p> <p>4" Bold J Trim</p> |
|--|---|--|

PLANKS

| | | | | | |
|--|--|--|--|---|---|
| <p>P96F</p>  <p>6" Board</p> | <p>BB5.1</p>  <p>2-1/8" Batten</p> | <p>BB5.2</p>  <p>Backplate</p> <p>Top Cap</p> <p>2-1/8" Low Profile Surface Mount Batten</p> | <p>BB5.3</p>  <p>Backplate</p> <p>Top Cap</p> <p>2-1/8" Bold Surface Mount Batten</p> | <p>BB5.4</p>  <p>Backplate</p> <p>Top Cap</p> <p>4" Bold Surface Mount Batten</p> | <p>BB5.5</p>  <p>Backplate</p> <p>Top Cap</p> <p>6" Bold Surface Mount Batten</p> |
|--|--|--|--|---|---|

| CLOSURES | | INTERMETDIATE TRIMS | | TRANSITION TRIMS | | MULLION TRIM | | FLASHING | |
|--|--|---|--|--|--|--------------|--|----------|--|
| <p>BB6-0</p>  <p>General Closure</p> | <p>BB6-1</p>  <p>Small Closure</p> | <p>BB7-0</p>  <p>Backplate</p>  <p>Top Cap</p>  <p>2-Piece Intermediate</p> | <p>BB8-0</p>  <p>Backplate</p>  <p>Top Cap</p>  <p>Lap to Board and Batten Transition Trim</p> | <p>BB9-0</p>  <p>Backplate</p>  <p>Top Cap</p>  <p>Window Mullion trim</p> | <p>BB10-0</p>  <p>Backplate</p>  <p>Top Cap</p>  <p>Flashing Below Balcony Backplate</p> | | | | |
| CLIPS & CONNECTORS | | | | | | | | | |
| <p>P22</p>  <p>Plank Clip QTY Per Bag: 100</p> | <p>P23</p>  <p>Plank Connector QTY Per Bag: 50</p> | <p>P25</p>  <p>Window Corner Key QTY Per Bag: 50</p> | <p>P26</p>  <p>Bold Starter Corner Key QTY Per Bag: 50</p> | <p>P27</p>  <p>Bold Starter Outside Corner Connector QTY Per Bag: 50</p> | <p>P130</p>  <p>Plank Backer QTY Per Bag: 50</p> | | | | |
| ACCESSORIES | | | | | | | | | |
| <p>MS34</p>  <p>3/4" Metal Screw</p> | <p>MS112</p>  <p>1-1/2" Metal Screw</p> | <p>WS112</p>  <p>1-1/2" Wood Screw</p> | | | | | | | |



GALLERY

A precision-extruded aluminum cladding system that delivers the vertical proportions and shadow lines of traditional board-and-batten construction with enhanced durability, dimensional stability, and low-maintenance performance. Engineered for rainscreen applications with concealed fastening and consistent visual alignment.





COLOR OPTIONS

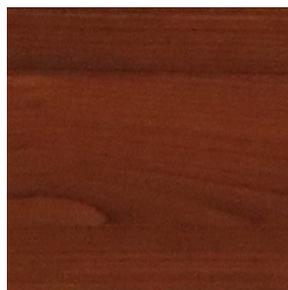
Stock Woodgrains



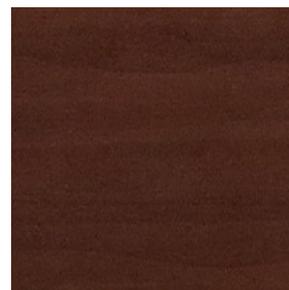
Light Cherry



Dark Fir



Dark Cherry

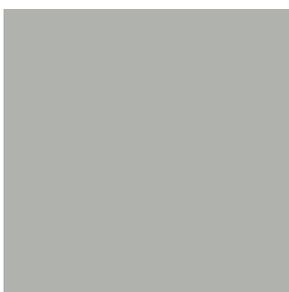


Dark Walnut

Stock Solids



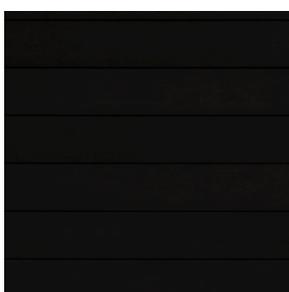
Bone White



Cadet Grey

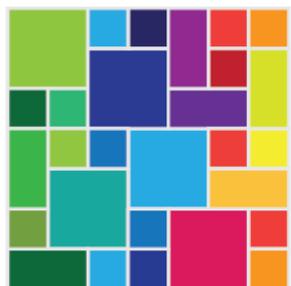


Charcoal



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



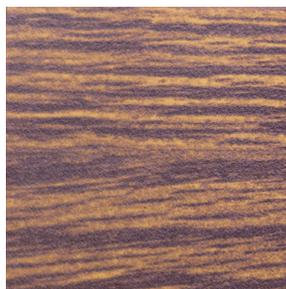
Light Mahogany



Pecan Hazelwood



Knotty Pine



Hickory Oak



Autumn Chestnut



Cafe Noir



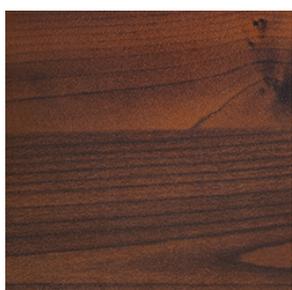
Mocha Oak



Chestnut Brown Oak



European Walnut



Beechwood



Ironwood



Dark Zebra



Italian Rosewood



African Walnut



National Grey



Fossil Grey

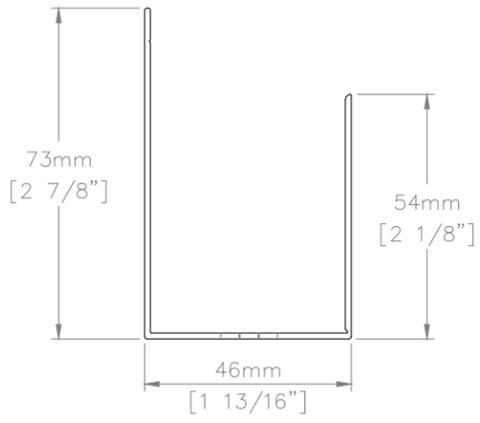


Smoked Ash

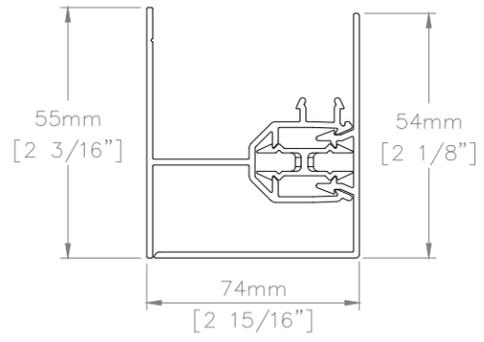


TYPICAL DETAILS

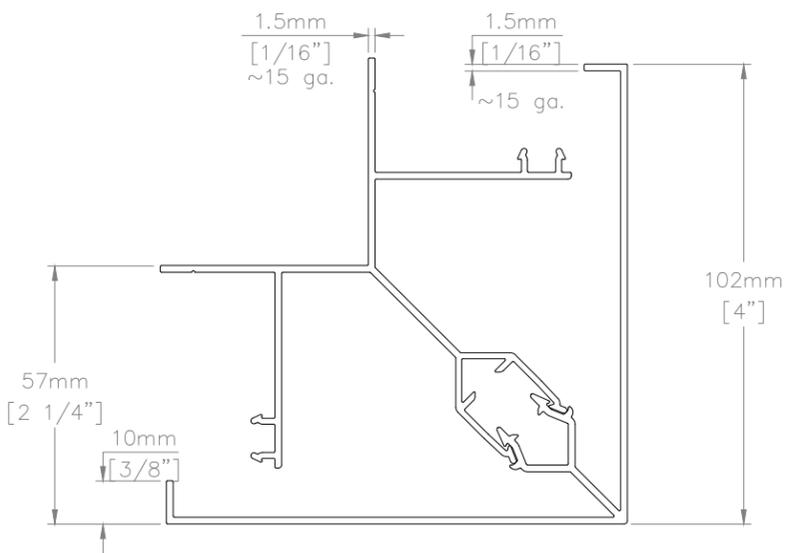
The FastPlank[®] Board & Batten system installs with the same proven methods and ease as all FastPlank products. Using familiar components and installation sequencing, it delivers clean alignment and efficient installation without added complexity.



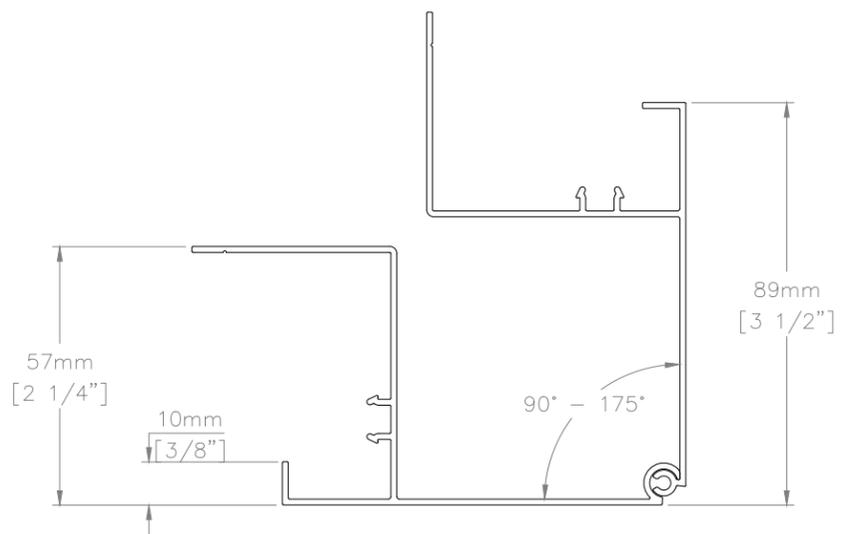
P142S-R2
2-1/8" TAB STARTER



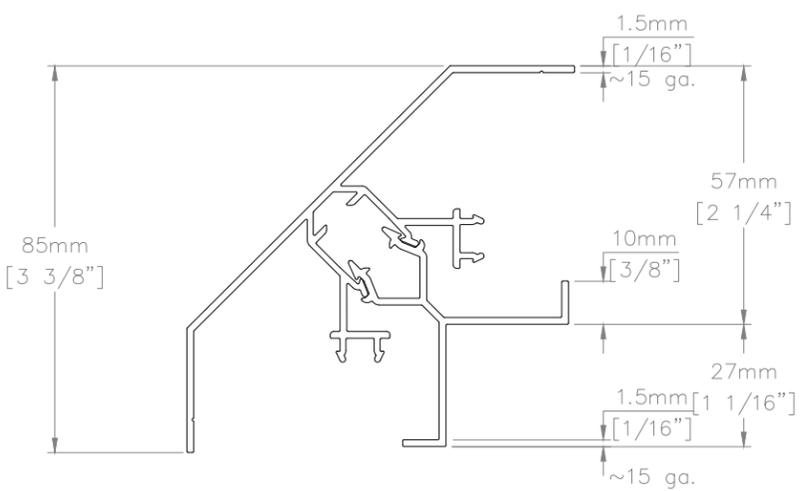
P111B-R4 + P114T-R2
2-PIECE J TRIM



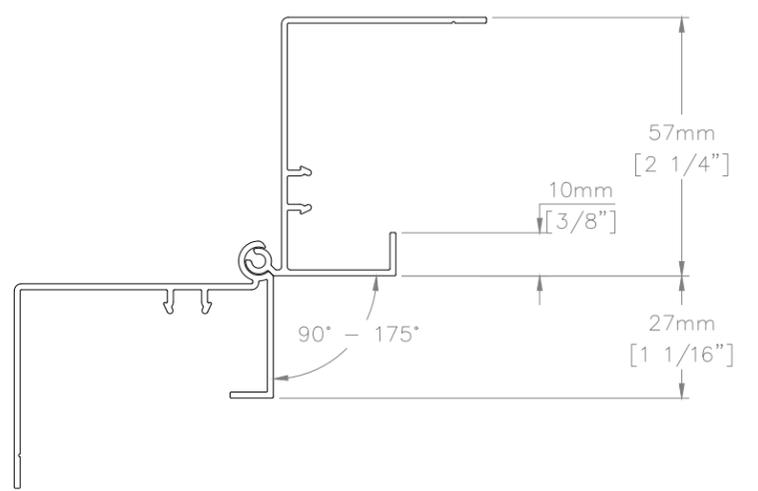
P100B-R2 + P100T-R2
OUTSIDE CORNER



P104-F-R1 + P104-M-R1
MULTI-ANGLE OUTSIDE CORNER



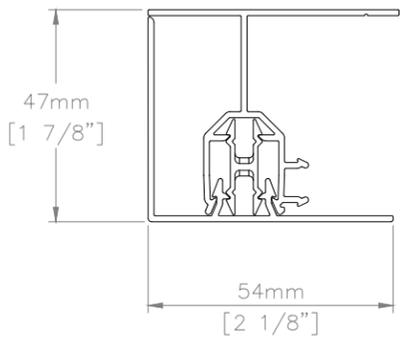
P102B-R3 + P102T-R3
INSIDE CORNER



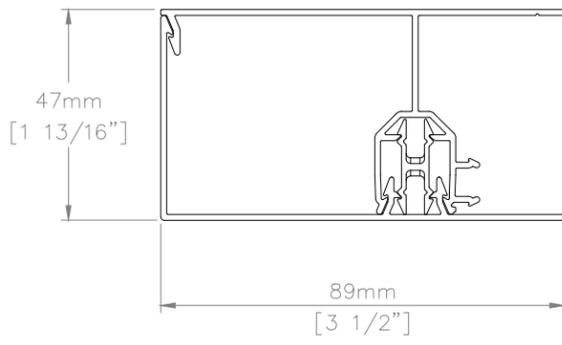
P105-F-R2 + P105-M-R2
MULTI-ANGLE INSIDE CORNER

NOTE: ALL TRIMS ARE 1.3mm (0.050") ~ 16ga. UNLESS NOTED.

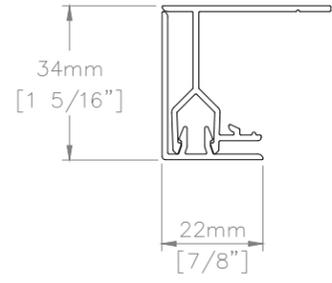
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| FASTPLANK BOARD + BATTEN STARTERS & CORNER TRIMS | | | |
| ENGAGE BUILDING PRODUCTS™ | SCALE | NTS | DRAWING NUMBER |
| | DATE | 05JUN2025 | G-058-1 |
| | DRWN BY | HJ/JB | |



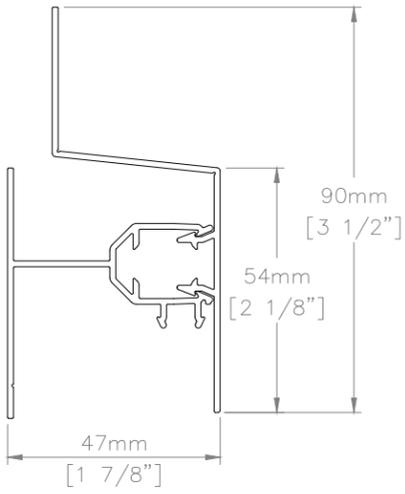
P111B-R4 + P114T-R2
2-PIECE J TRIM



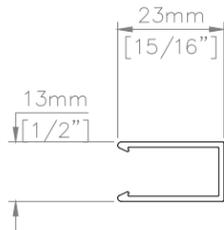
P115B + P115T-R2
3 1/2\"/>



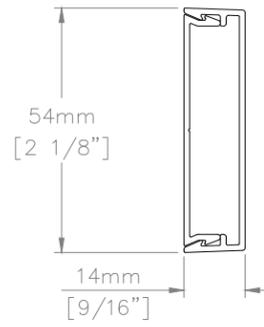
P116B-R1 + P116T-R1
WINDOW MULLION TRIM



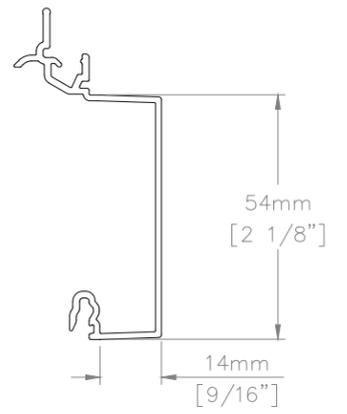
P111B-R4 + P117T-R1
LAP TO BOARD + BATTEN
TRANSITION TRIM



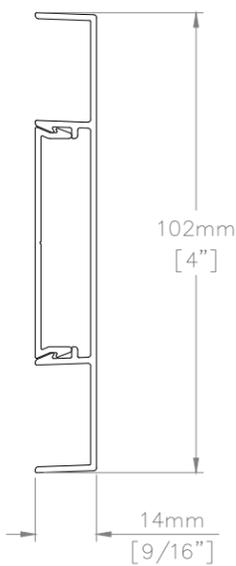
P103C-R1
CLOSURE



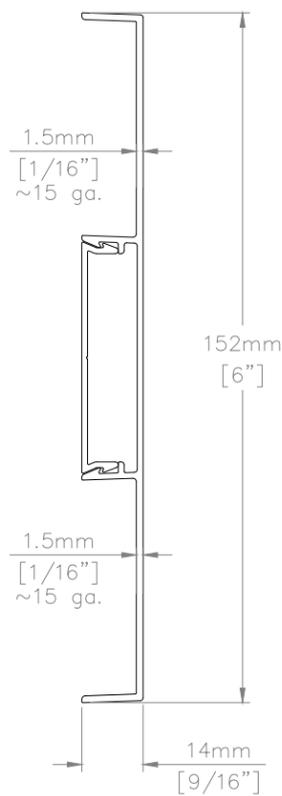
P90B + P90T
2-1/8\"/>



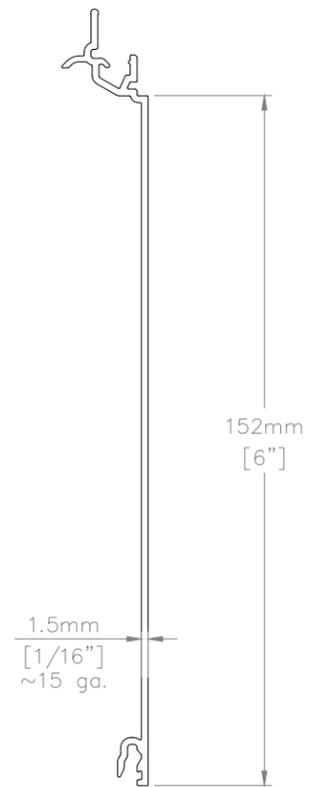
P91N
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P90B + P152T
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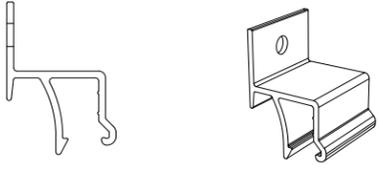
P90B + P153T
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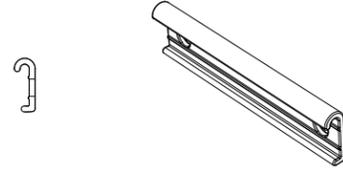
P96F-R4
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NOTE: ALL TRIMS ARE 1.3mm (0.050") ~ 16ga. UNLESS NOTED.

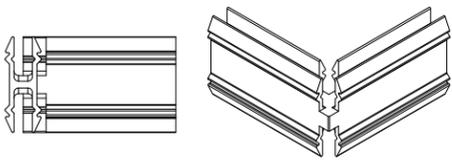
| DESCRIPTION | | | |
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| FASTPLANK BOARD + BATTEN PLANK, BELLYBANDS, & ACCESSORIES | | | |
| ENGAGE BUILDING PRODUCTS™ | SCALE | NTS | DRAWING NUMBER |
| | DATE | 05JUN2025 | G-058-2 |
| DRWN BY | HJ/JB | | |



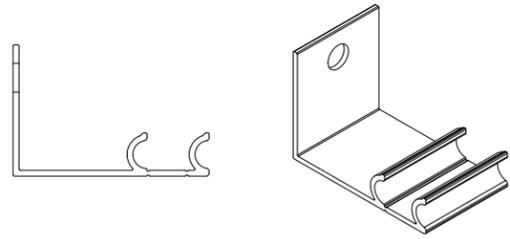
P22
PLANK CLIP (BLACK)



P23
PLANK CONNECTOR (BLACK)



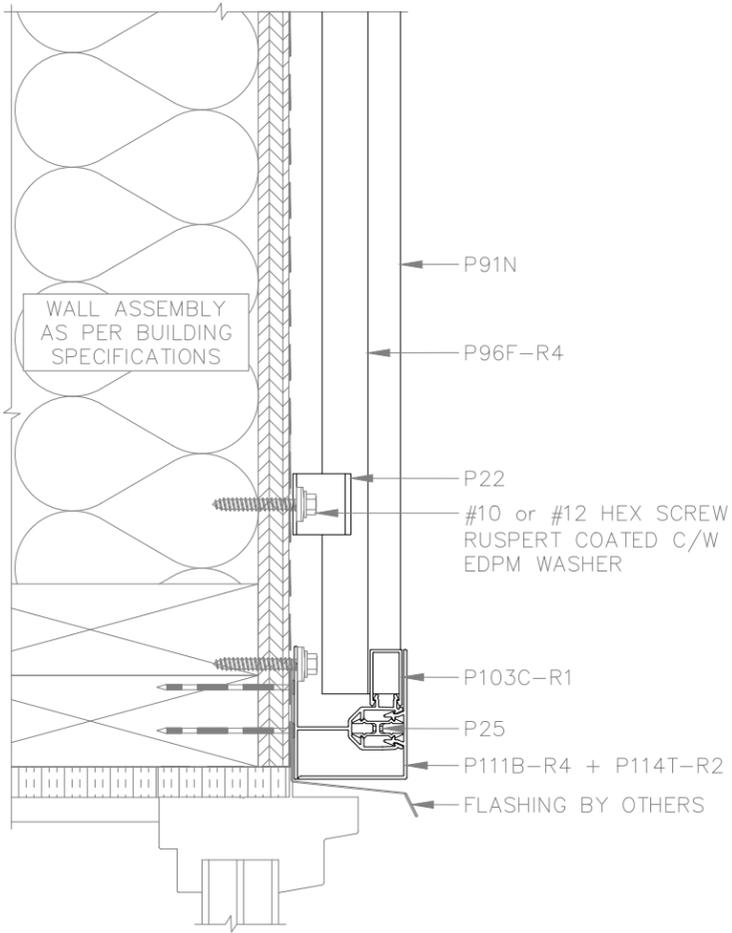
P25
WINDOW CORNER KEY (YELLOW)



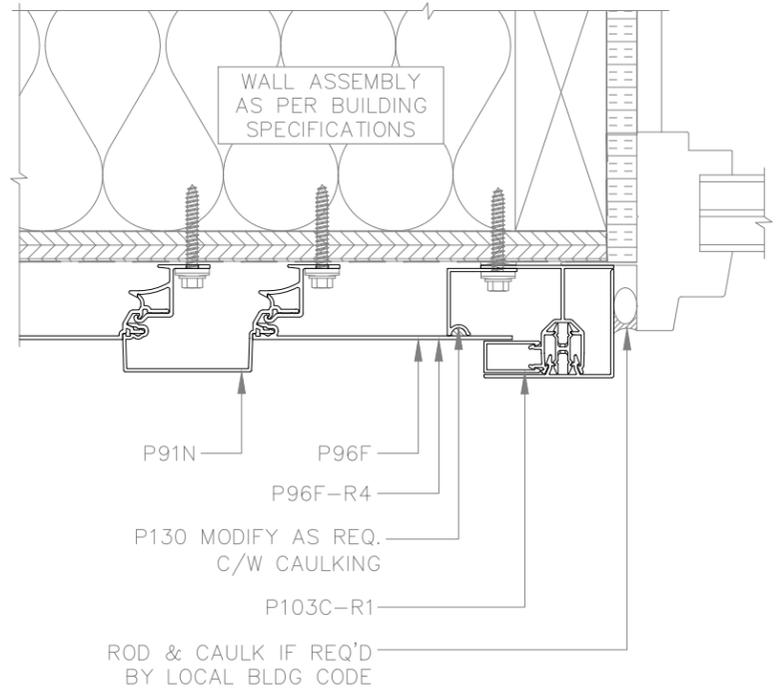
P130
PLANK BACKER (BLUE)

NOTE: ALL TRIMS ARE 1.3mm (0.050") ~ 16ga. UNLESS NOTED.

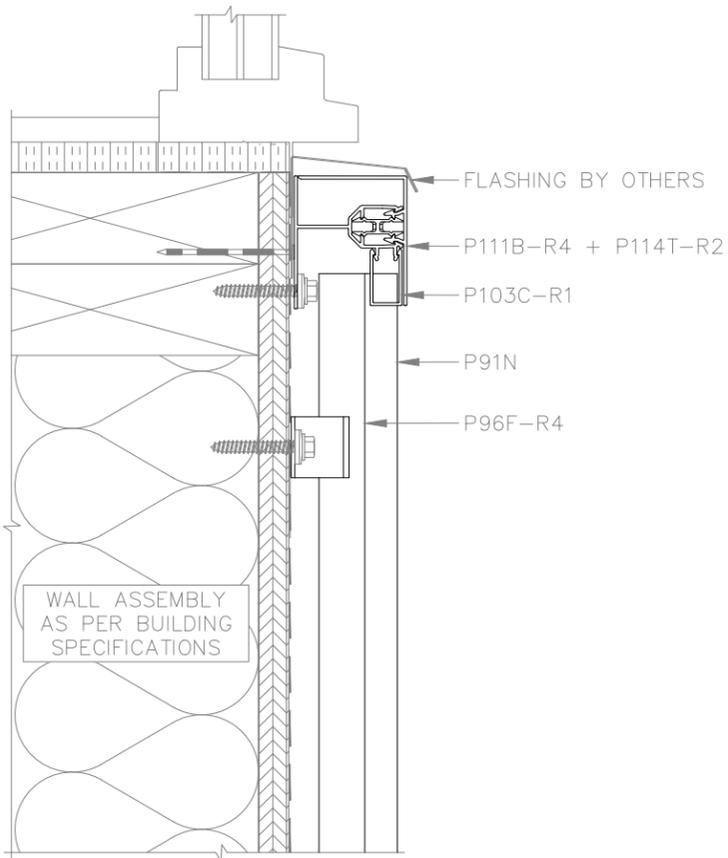
| | | | |
|--------------------------------------|-------|-----------|----------------|
| DESCRIPTION | | | |
| FASTPLANK BOARD + BATTEN ACCESSORIES | | | |
| ENGAGE BUILDING PRODUCTS™ | SCALE | NTS | DRAWING NUMBER |
| | DATE | 05JUN2025 | G-058-3 |
| DRWN BY | HJ/JB | | |



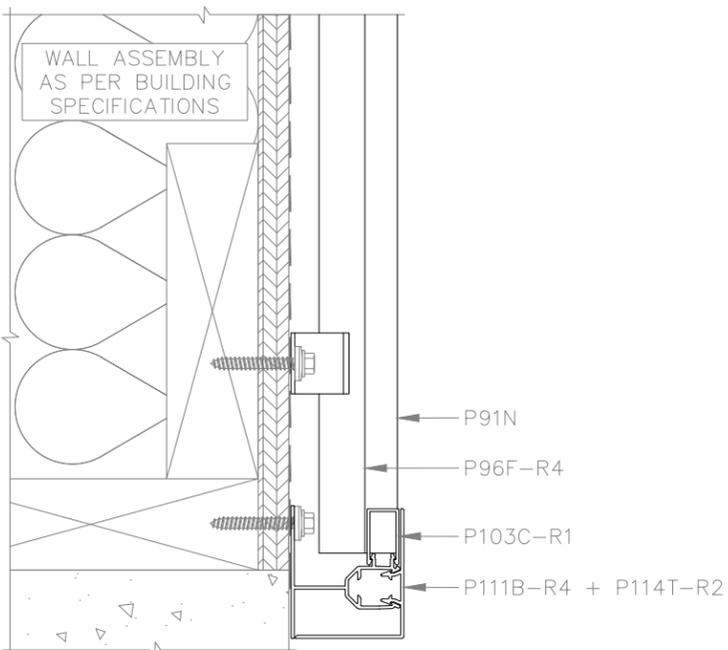
① 2-1/8" WINDOW HEAD TRIM
Scale: NTS



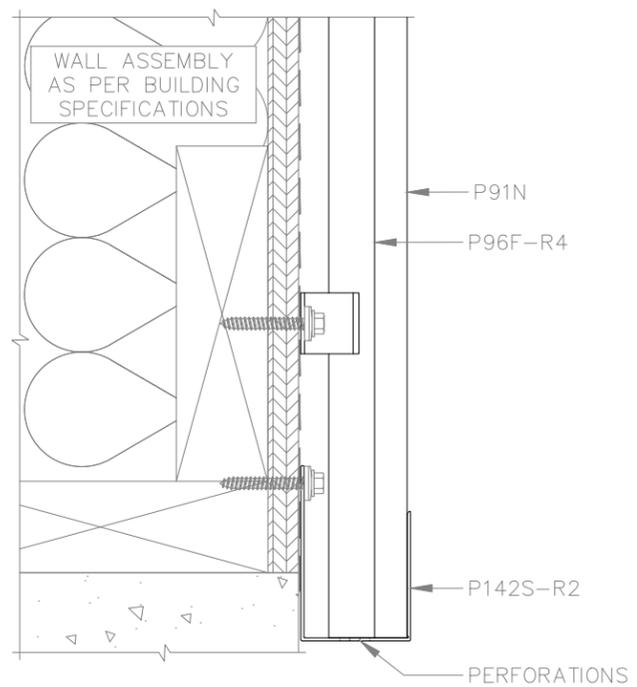
④ 2-1/8" WINDOW JAMB TRIM
Scale: NTS



② 2-1/8" WINDOW SILL TRIM
Scale: NTS



③ 2-1/8" 2-PIECE STARTER TRIM
Scale: NTS

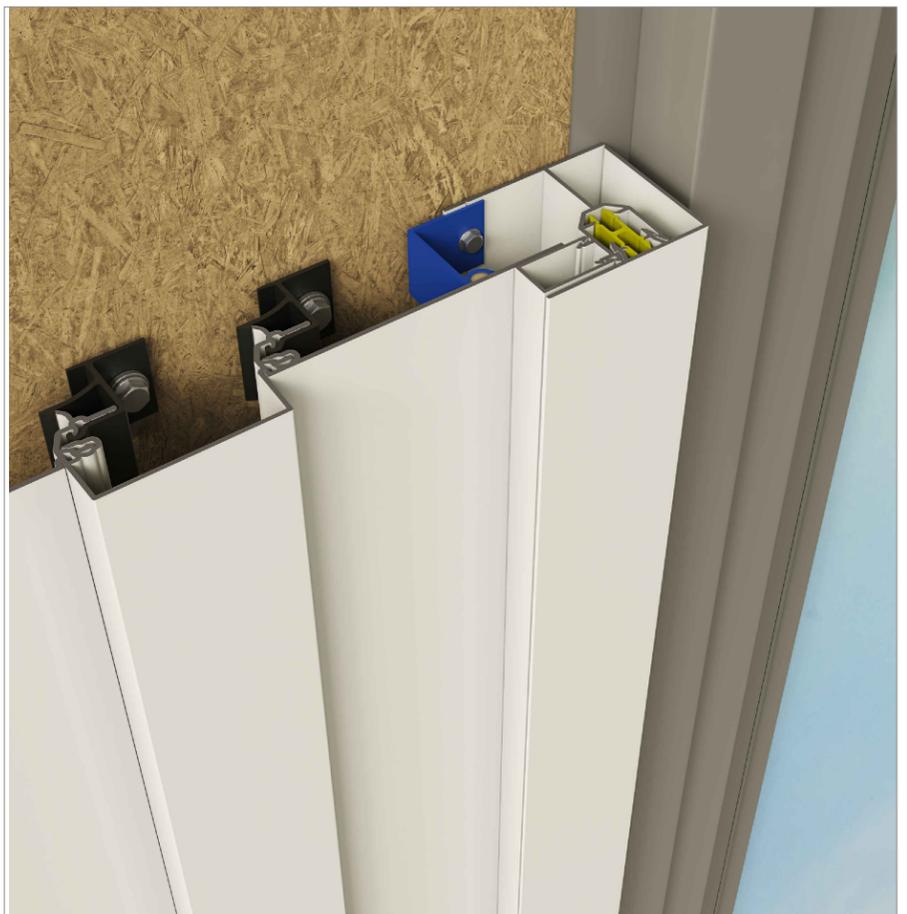


⑤ 2-1/8" STARTER TRIM
Scale: NTS

| | | | |
|-------------------------------------|---|-----------|----------------|
| DESCRIPTION | FASTPLANK BOARD + BATTEN STARTER & 2-1/8" WINDOW TRIM | | |
| ENGAGE BUILDING PRODUCTS™ | SCALE | NTS | DRAWING NUMBER |
| | DATE | 05JUN2025 | G-058-4 |
| | DRWN BY | HJ/JB | |



① **2-1/8" WINDOW HEAD TRIM**
Scale: NTS



④ **2-1/8" WINDOW JAMB TRIM**
Scale: NTS



② **2-1/8" WINDOW SILL TRIM**
Scale: NTS

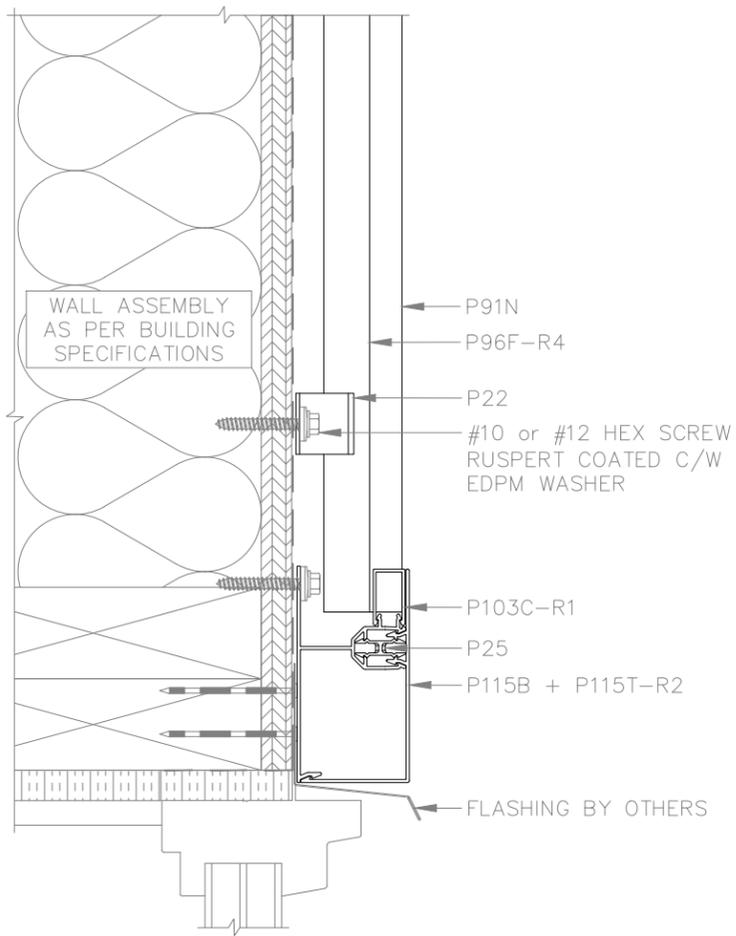


⑤ **2-1/8" STARTER TRIM**
Scale: NTS

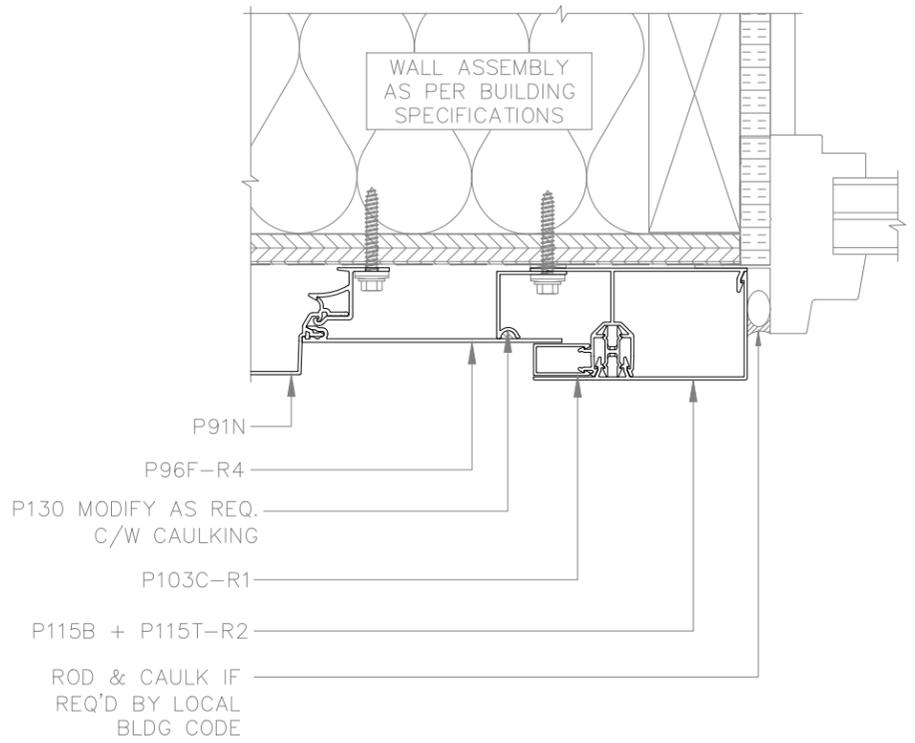


③ **2-1/8" 2-PIECE STARTER TRIM**
Scale: NTS

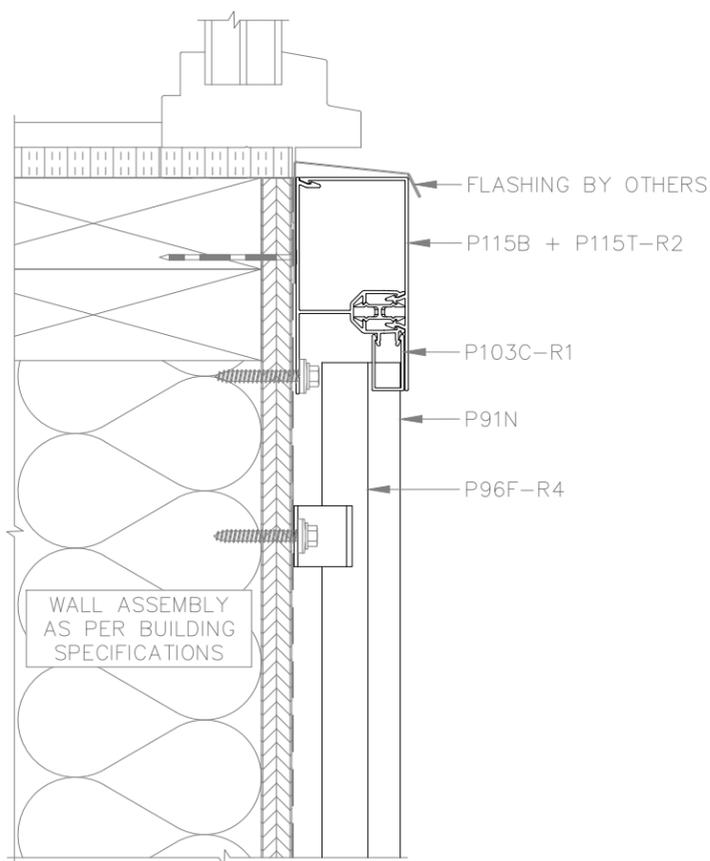
| | | | |
|--|-------|-----------|----------------|
| DESCRIPTION | | | |
| FASTPLANK BOARD + BATTEN STARTER & 2-1/8" WINDOW TRIM | | | |
| ENGAGE BUILDING PRODUCTS™ | SCALE | NTS | DRAWING NUMBER |
| | DATE | 24JUN2025 | G-058-5 |
| DRWN BY | MM | | |



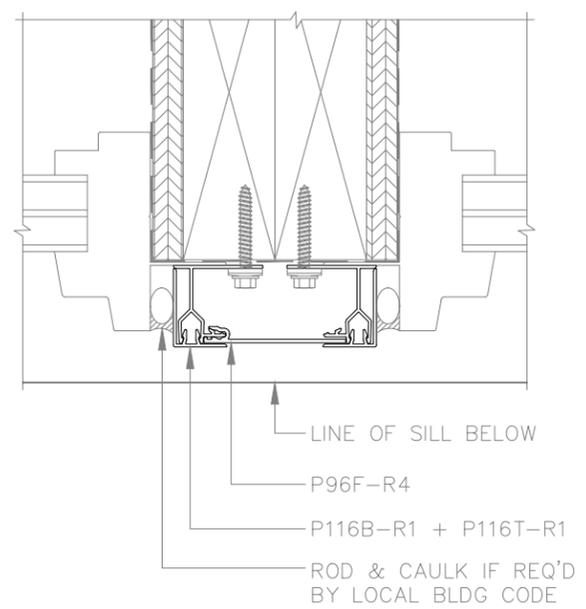
① **3-1/2" WINDOW HEAD TRIM**
Scale: NTS



③ **WINDOW JAMB TRIM**
Scale: NTS



② **3-1/2" WINDOW SILL TRIM**
Scale: NTS

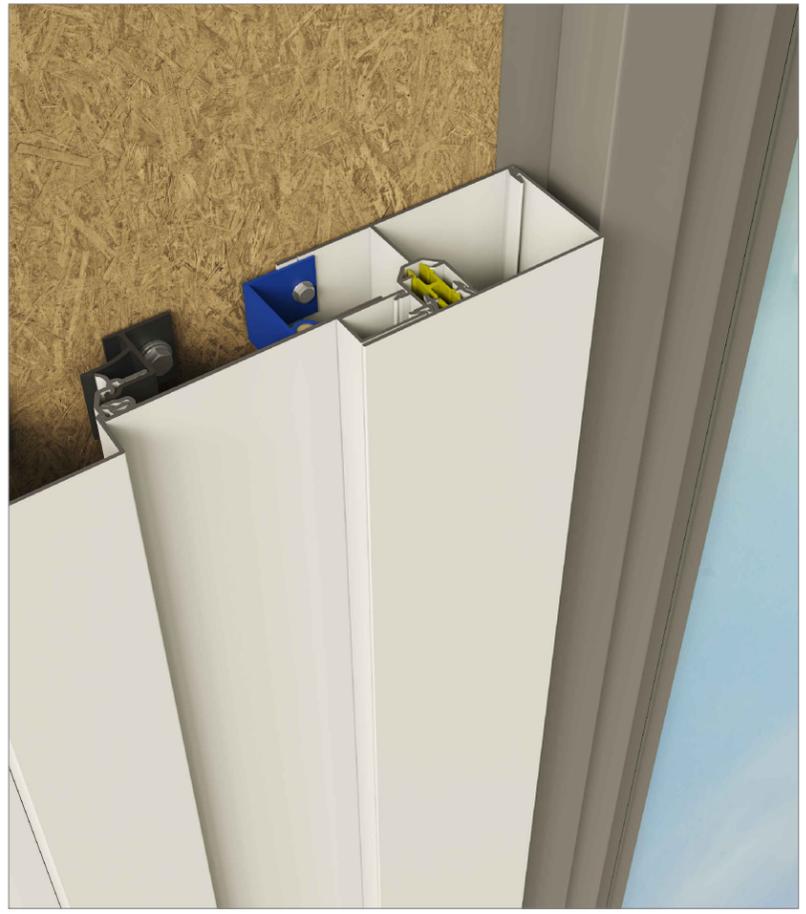


④ **WINDOW MULLION**
Scale: NTS

| | | | |
|---|---------|-----------|----------------|
| DESCRIPTION | | | |
| FASTPLANK BOARD + BATTEN BOLD STARTER & 3-1/2" WINDOW TRIM | | | |
| ENGAGE BUILDING PRODUCTS™ | SCALE | NTS | DRAWING NUMBER |
| | DATE | 05JUN2025 | G-058-6 |
| | DRWN BY | HJ/JB | |



① 3-1/2" WINDOW HEAD TRIM
Scale: NTS



③ WINDOW JAMB TRIM
Scale: NTS



② 3-1/2" WINDOW SILL TRIM
Scale: NTS

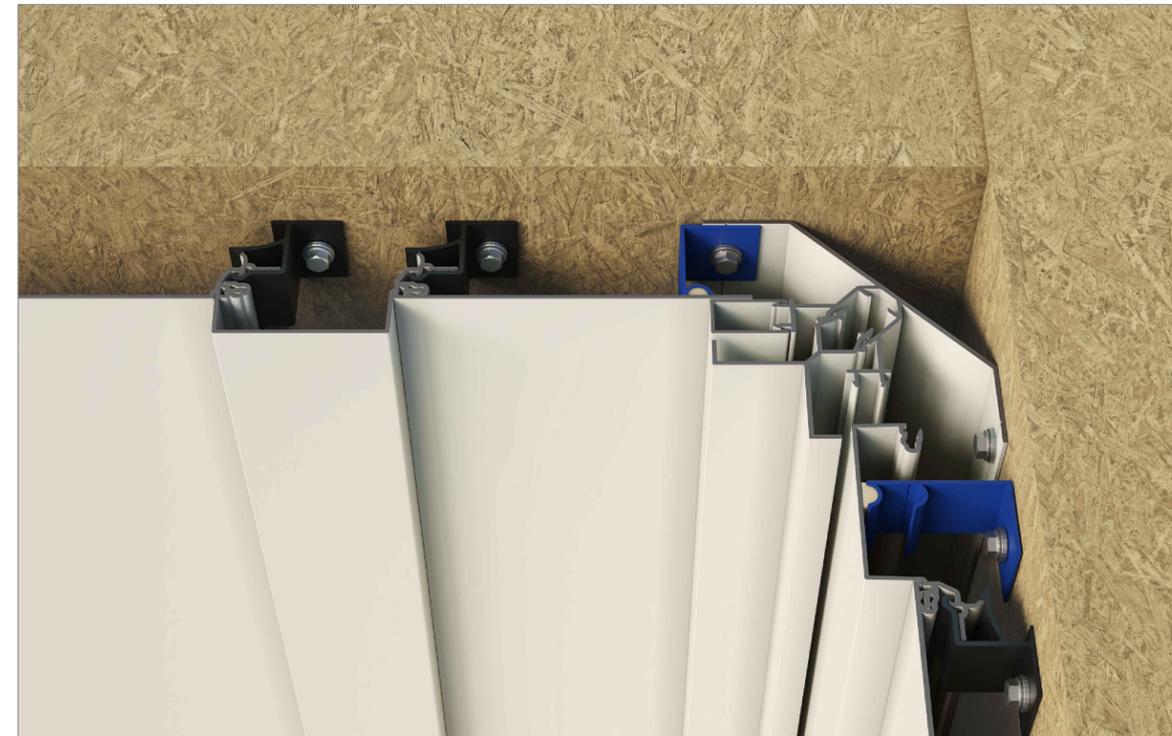


④ WINDOW MULLION
Scale: NTS

| | | | |
|---|---------|-----------|----------------|
| DESCRIPTION | | | |
| FASTPLANK BOARD + BATTEN BOLD STARTER & 3-1/2" WINDOW TRIM | | | |
| ENGAGE BUILDING PRODUCTS™ | SCALE | NTS | DRAWING NUMBER |
| | DATE | 24JUN2025 | G-058-7 |
| | DRWN BY | MM | |



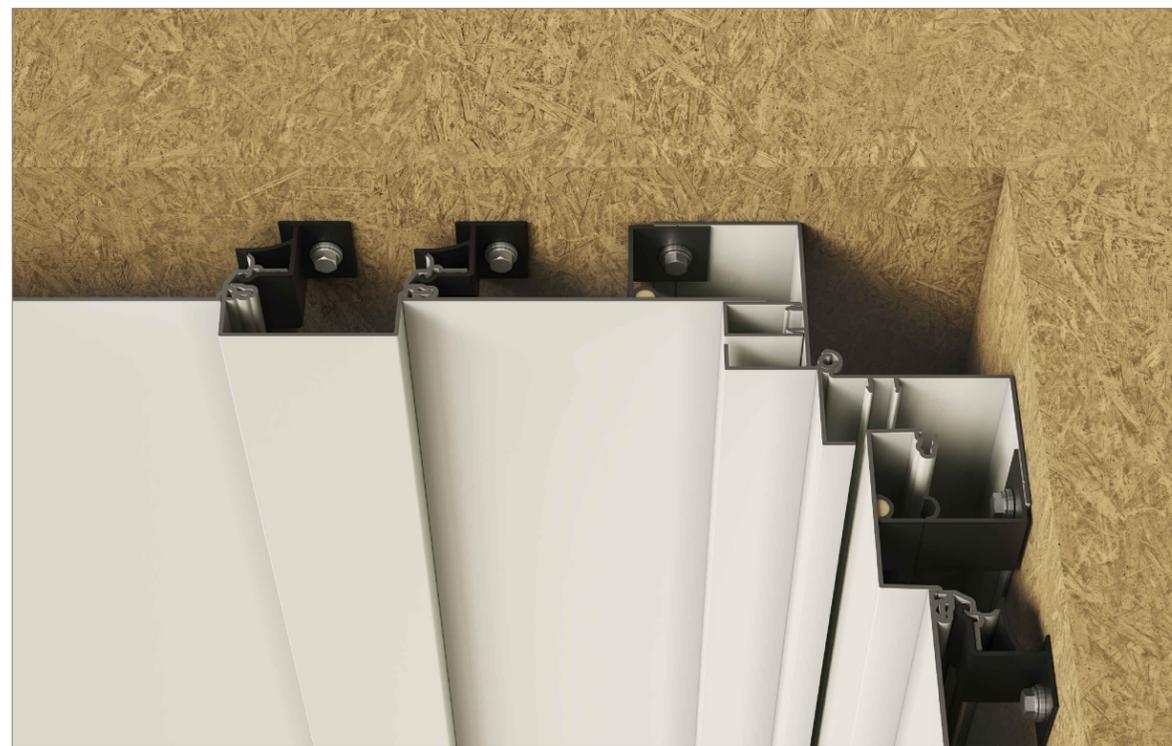
① **OUTSIDE CORNER**
Scale: NTS



② **INSIDE CORNER**
Scale: NTS



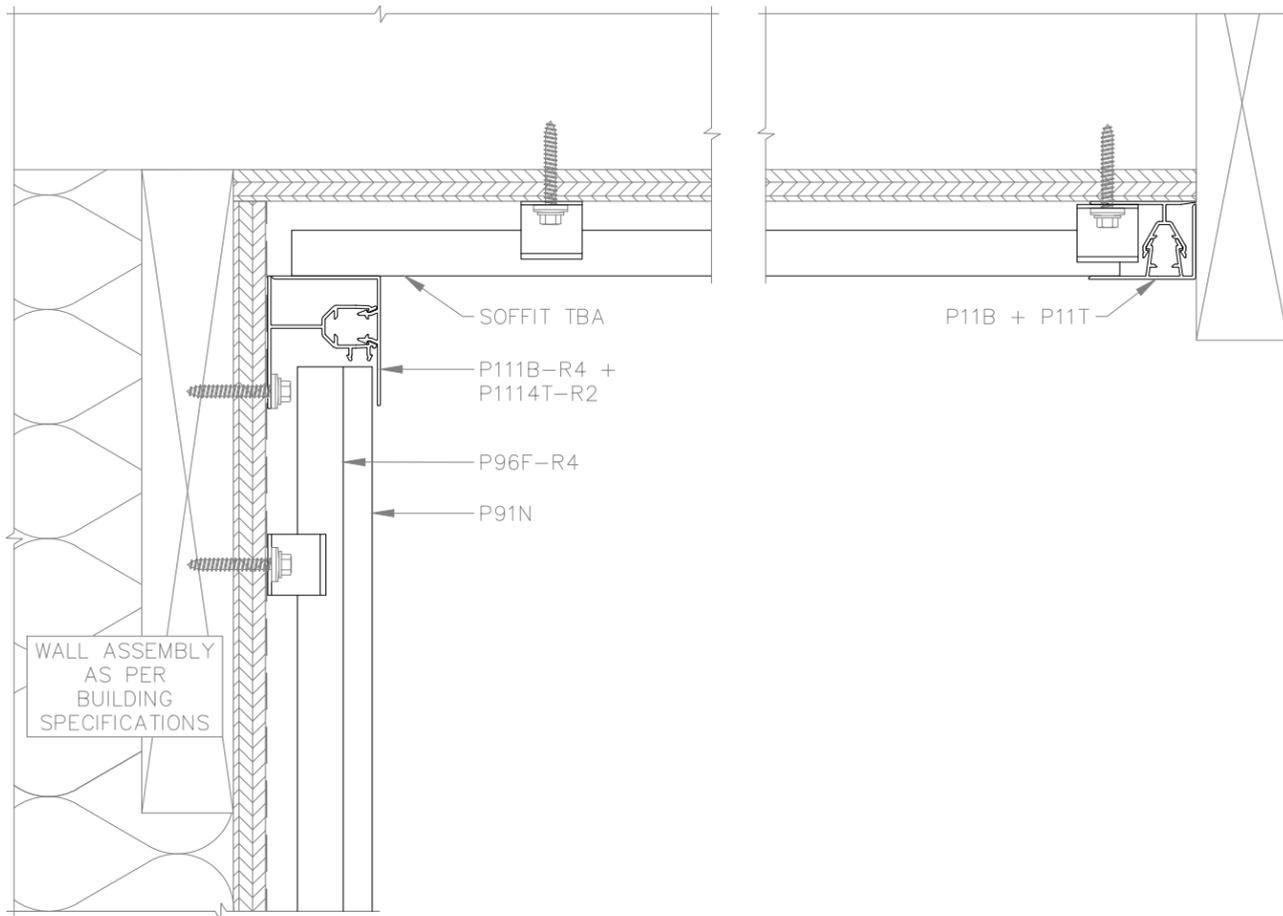
③ **MULTI-ANGLE OUTSIDE CORNER**
Scale: NTS



④ **MULTI-ANGLE INSIDE CORNER**
Scale: NTS

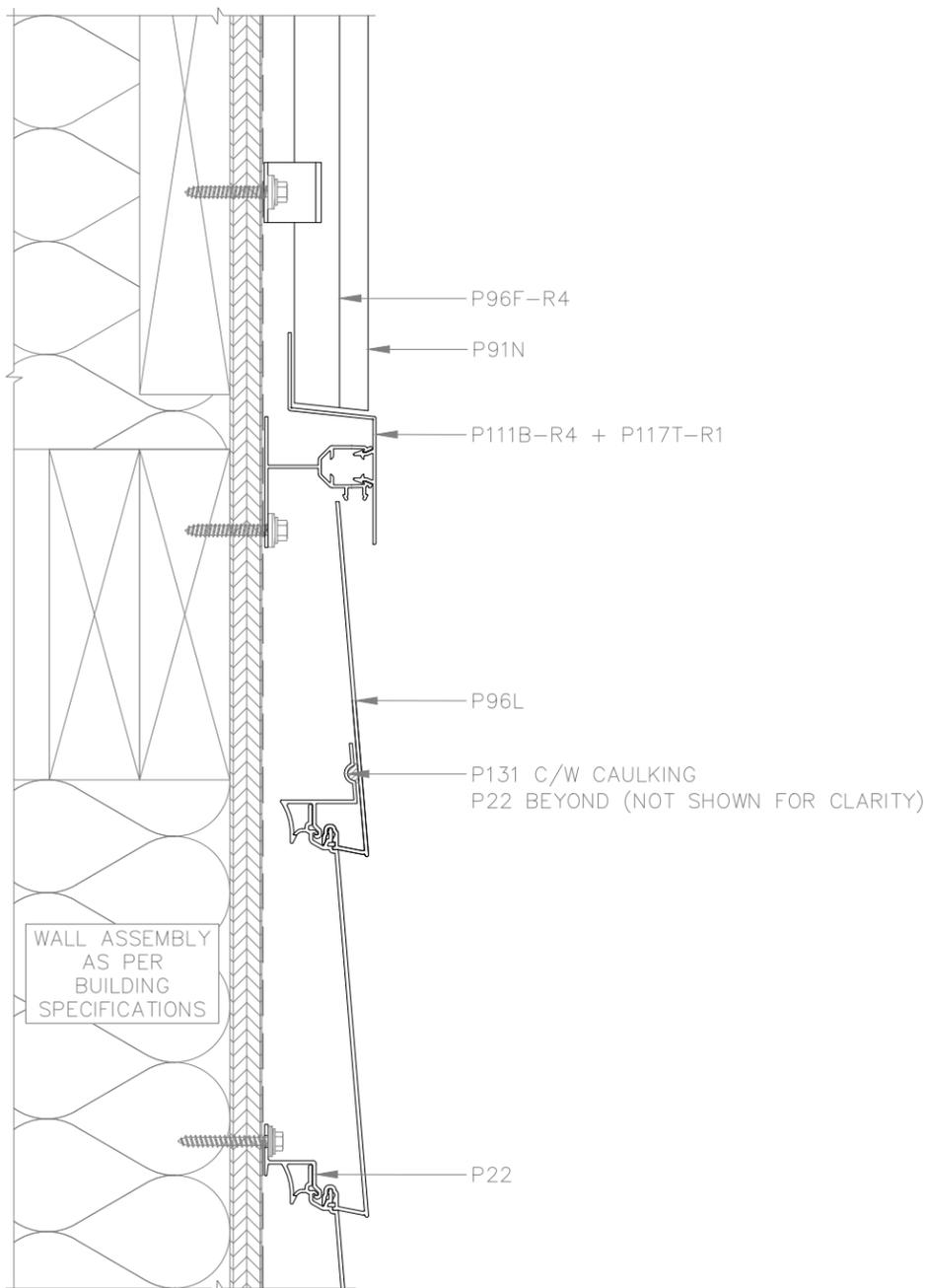
| | | | |
|--|-----------|----------------|--|
| DESCRIPTION | | | |
| FASTPLANK BOARD + BATTEN CORNER TRIMS | | | |
| SCALE | NTS | DRAWING NUMBER | |
| DATE | 24JUN2025 | G-058-9 | |
| DRWN BY | MM | | |

ENGAGE
BUILDING PRODUCTS™



① **BOARD + BATTEN @ TOP OF WALL**

Scale: NTS



② **LAP TO BOARD + BATTEN TRANSITION**

Scale: NTS

| | | | |
|--|---------|-----------|----------------|
| DESCRIPTION | | | |
| FASTPLANK BOARD + BATTEN TOP OF WALL & TRANSITION | | | |
| ENGAGE BUILDING PRODUCTS™ | SCALE | NTS | DRAWING NUMBER |
| | DATE | 05JUN2025 | G-058-10 |
| | DRWN BY | HJ/JB | |



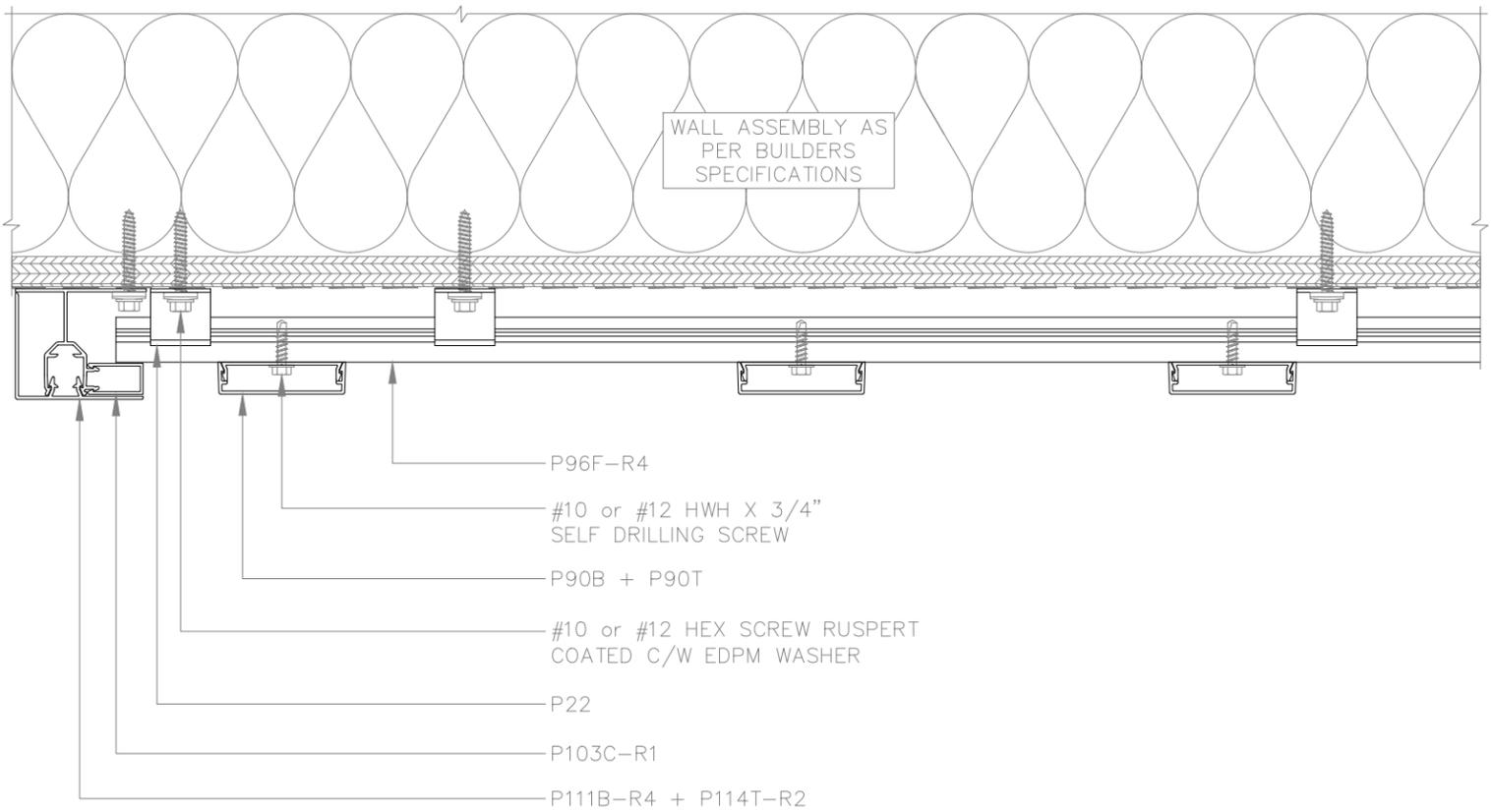
① BOARD + BATTEN @ TOP OF WALL
Scale: NTS



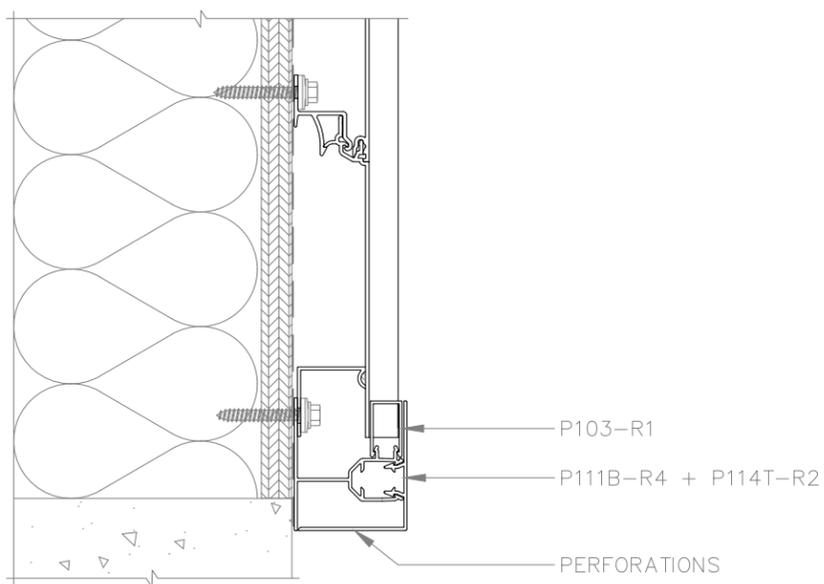
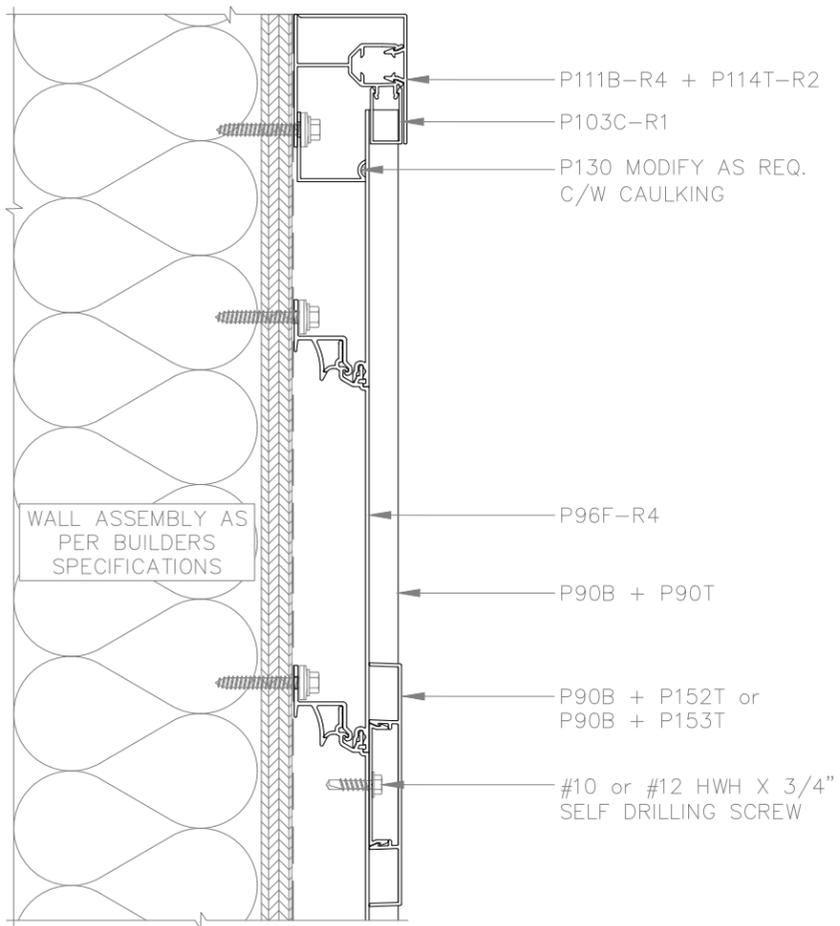
② LAP TO BOARD + BATTEN TRANSITION
Scale: NTS

| | | | |
|--|-----------|----------------|--|
| DESCRIPTION | | | |
| FASTPLANK BOARD + BATTEN TOP OF WALL & TRANSITION | | | |
| SCALE | NTS | DRAWING NUMBER | |
| DATE | 24JUN2025 | G-058-11 | |
| DRWN BY | MM | | |

ENGAGE
BUILDING PRODUCTS™



1 VERTICAL TERMINATION W/ 2-PC SURFACE MOUNT BATTEN
Scale: NTS



2 2-1/8" 2-PC SURFACE MOUNT BATTEN C/W BELLY BAND
Scale: NTS

| | | | |
|-------------|--|----------------|--|
| DESCRIPTION | FASTPLANK BOARD + BATTEN 2-1/8" 2-PC SURFACE MOUNT BATTEN | | |
| SCALE | NTS | DRAWING NUMBER | |
| DATE | 05JUN2025 | G-058-12 | |
| DRWN BY | HJ/JB | | |

ENGAGE
BUILDING PRODUCTS™



① VERTICAL TERMINATION W/ 2-PC SURFACE MOUNT BATTEN
Scale: NTS



② 2-1/8" 2-PC SURFACE MOUNT BATTEN C/W BELLY BAND
Scale: NTS

| | | | |
|--|-----------|----------------|--|
| DESCRIPTION | | | |
| FASTPLANK BOARD + BATTEN 2-1/8" 2-PC SURFACE MOUNT BATTEN | | | |
| SCALE | NTS | DRAWING NUMBER | |
| DATE | 24JUN2025 | G-058-13 | |
| DRWN BY | MM | | |

ENGAGE
BUILDING PRODUCTS™

Board & Batten

Features



FastPlank Board & Batten features a dimensional plank-and-batten design with both vertical and horizontal battens, engineered to create depth, shadow lines, and a refined exterior presence.

- Built-in pressure-equalized rainscreen
- Clip-and-Slide technology
- Weather resistant

Finish Options

WOODGRAINS



SOLID COLORS



COLORMATCH[®]



Board & Batten is custom order. **Lead times are typically 12-14 weeks.**

Trim Components (Lengths: 12')



Attachments

Clips & Connectors

Plank Clip • Plank Connector • Plank Backer • Window Corner Key • Bold Starter Corner Key

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

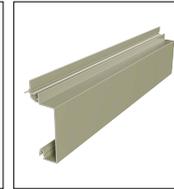
Product
FastPlank[®]

Document
Cut Sheet

Category
Plank



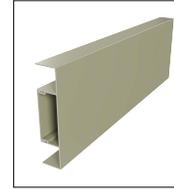
6" Board



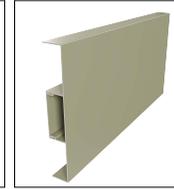
Batten



Low Profile Surface Mount Batten



4" Bold Surface Mount Batten



6" Bold Surface Mount Batten

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 | 16' (Up to 32' if plank connector used) |
| Weight (lbs/sqft) | ~1.2 |
| Quantity | 4" – 10 pcs/ box; 6" – 6 pcs/ box |

TESTING

| | |
|-------------------------------|---|
| Finish | AAMA 2604 |
| Pressure Equalized Rainscreen | AAMA 508 |
| Wind Resistance | ASTM E330 and E283 |
| Water Resistance | ASTM E331 |
| Impact Resistance | Florida Product Code: FL0093-3-1 Miami Dade, Florida, NOA No. 22-0615.01 Expiration Date: April 06, 2028 |
| Impact Testing | TAS 201 |
| Non-Combustible | WUI – California Department of Forestry & Fire Protection Office of the State Fire Marshal Listing No. 8140-2286:0500 |
| Fire Rating | Class A Non-Combustible by ASTM E136 and ASTM E84; CAN/ULC S144-18 |

Standards/ Codes Compliance

National Building Code of Canada Evaluation;
2024 International Building Code (IBC);
2024 International Residential Code (IRC);
2022 California Building Code (CBC);
2022 California Residential Code (CRC);
ICC-ES Evaluation Report

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. Aluminum Siding: **FastPlank® plank profile:**
 - 4" [102 mm] V-NOTCH.**
 - 6" [152 mm] V-NOTCH.**
 - 6" [152 mm] DEEP FLUTED.**
 - 6" [152 mm] 1" SQUARE NOTCH.**
 - 6" [152 mm] 3" SQUARE NOTCH.**
 - 6" [152 mm] 5" SQUARE NOTCH.**
 - 6" [152 mm] SHALLOW FLUTED.**
 - 6" [152 mm] INVISI-LINE.**
 - 6" [152 mm] V-NOTCH.**
 - 6" [152 mm] DOUBLE V-NOTCH.**
 - 3" [76 mm] V-NOTCH.**or **perforated soffit 3" [76mm], 4" [102mm], or 6" [152mm]**
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 plank siding
 - b. Details: Edge conditions, joints, plank profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.

- c. Accessories: Include details of the flashing, trim, and anchorage, at a scale of not less than 1-1/2 inches per 12 inches [38.1 mm per 304.8 mm].
 - d. Distinguish between factory- and field-assembled work.
 - D. Samples:
 - 1. For initial color selection.
 - 2. For each type of aluminum plank 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 aluminum plank siding, 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 aluminum plank siding in a manner to prevent bending, warping, twisting, and surface damage.
 2. Aluminum Plank Siding:
 - 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 plank 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. Plank Sizes: 16 feet [4877 mm]
 2. **[x 4" [102 mm] V-NOTCH P44V. Weight: 0.549 lbs/ft (0.817 kg/m)]**
[x 6" [152 mm] V-NOTCH P46V. Weight: 0.691 lbs/ft (1.109 kg/m)]
[x 6" [152 mm] DEEP FLUTED P67D. Weight: 0.750 lbs/ft (1.088 kg/m)]
[x 6" [152 mm] 1" SQUARE NOTCH P68N. Weight: 0.664 lbs/ft (0.946 kg/m)]
[x 6" [152 mm] 3" SQUARE NOTCH P69N. Weight: 0.664 lbs/ft (0.946 kg/m)]
[x 6" [152 mm] 5" SQUARE NOTCH P70N. Weight: 0.664 lbs/ft (0.946 kg/m)]
[x 6" [152 mm] SHALLOW FLUTED P96C. Weight: 0.631 lbs/ft (0.917 kg/m)]
[x 6" [152 mm] INVISI-LINE P94. Weight: 0.589 lbs/ft (0.855 kg/m)]
[x 6" [152 mm] V-NOTCH P96V. Weight: 0.582 lbs/ft (0.845 kg/m)]
[x 6" [152 mm] DOUBLE V-NOTCH P97VV. Weight: 0.589 lbs/ft (0.855 kg/m)]
[x 3" [76 mm] V-NOTCH P98V. Weight: 0.370 lbs/ft (0.537 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. Trim Extrusions: 144 inch (3658 mm) long, corners and caps to profile.
- B. Clips: 1 inch (25 mm) long system clips.
- C. 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.
- D. Isolation Tape: Manufacturer's standard material for separating dissimilar metals from direct contact.
- E. 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.
- F. Insulation: Rigid type
- G. Sealant: Color of exposed sealant to match adjacent cladding.
- H. Gaskets: Santoprene or EPDM as recommended by the manufacturer.
- I. 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.
- J. 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 plank siding to verify actual locations of penetrations relative to seam locations of planks before
 - 6. plank installation.
 - 7. 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 planks; 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 starter strips, inside and outside corners, edgings, soffit, drip, cap, sill, and window/door opening flashings, as indicated.
- E. Install outside corners, fillers, and closure strips with carefully formed and profiled work.
- F. Maintain joints in exterior cladding, true to line, tight fitting, hair-line joints.
- G. Attach components in a manner not restricting thermal movement.
- H. Caulk junctions with adjoining work with sealant.
- I. Apply isolation coating to areas of contact between dissimilar metals.
- J. 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 siding plank 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 siding plank installation, clear all drainage channels of obstructions and/or dirt.
- D. Replace aluminum planks 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

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,
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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

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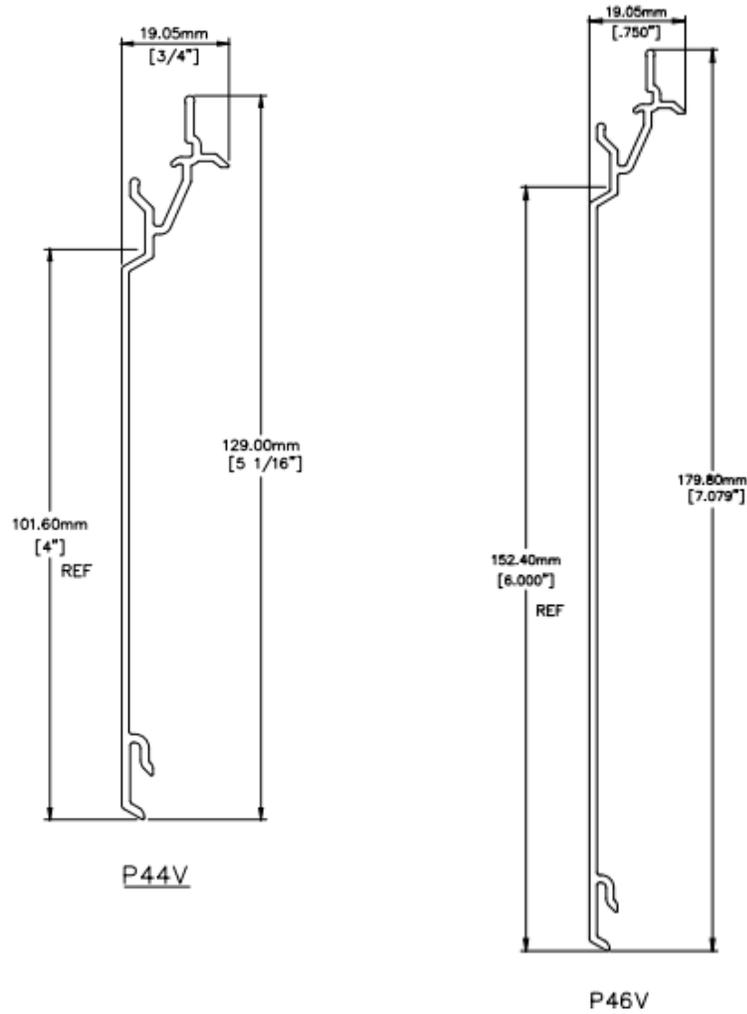


FIGURE 1 – PLANK DIMENSIONS

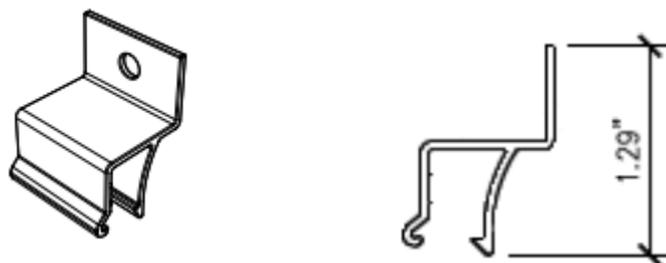


FIGURE 2 – FASTENING CLIPS

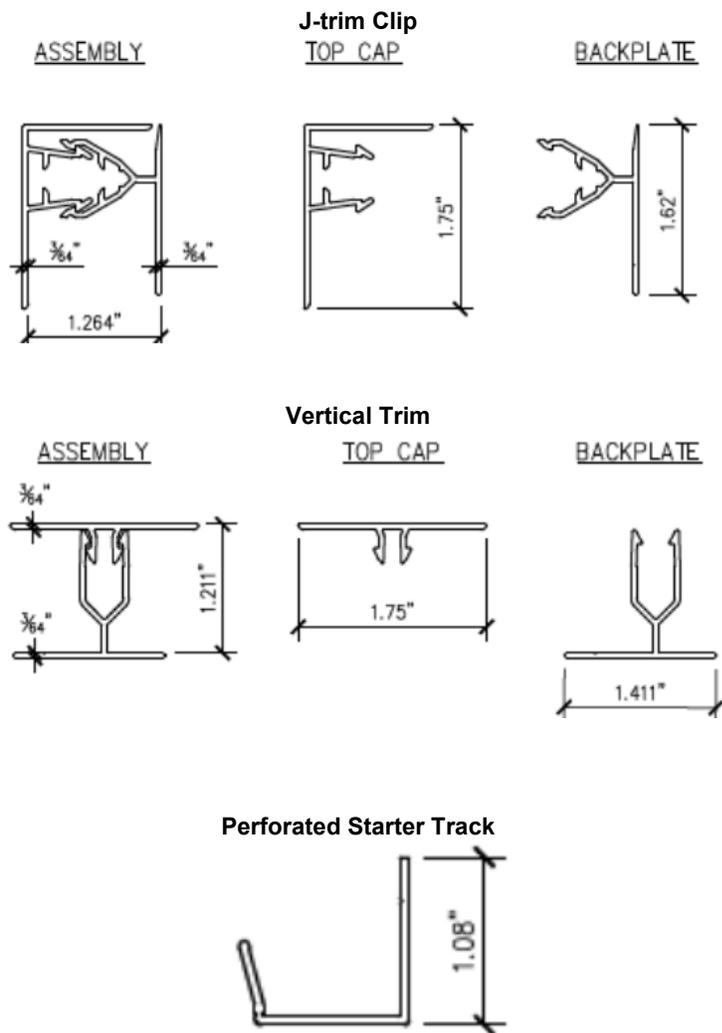


FIGURE 3 – TRIM AND ACCESSORIES

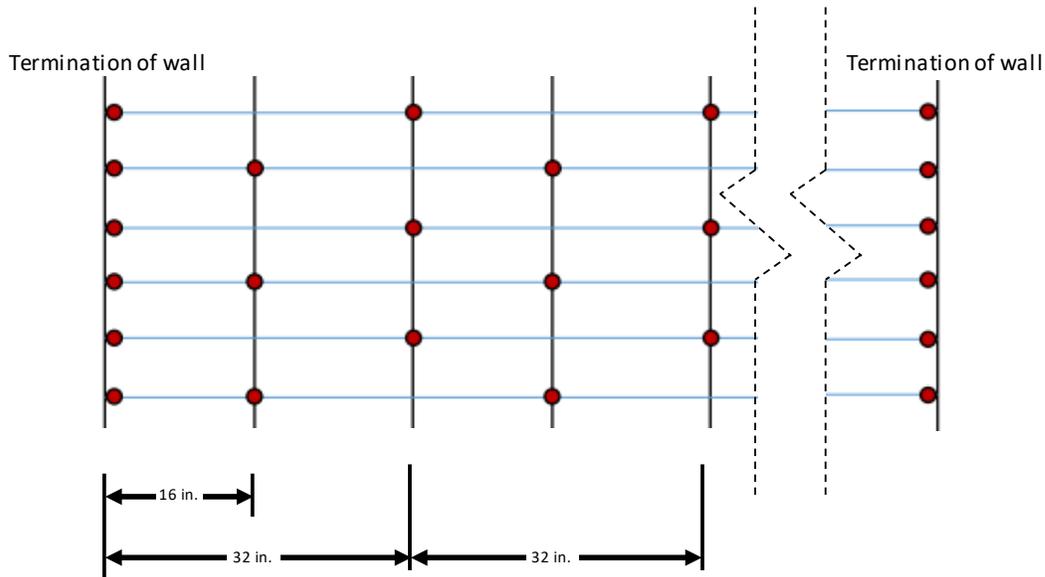


FIGURE 4 – CLIP INSTALLATION PATTERN

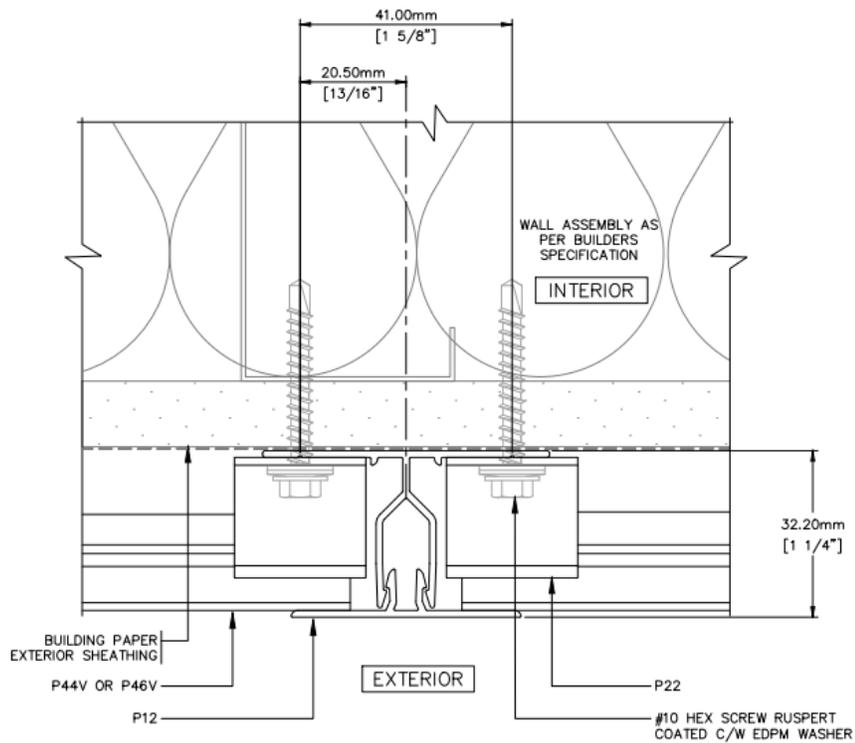
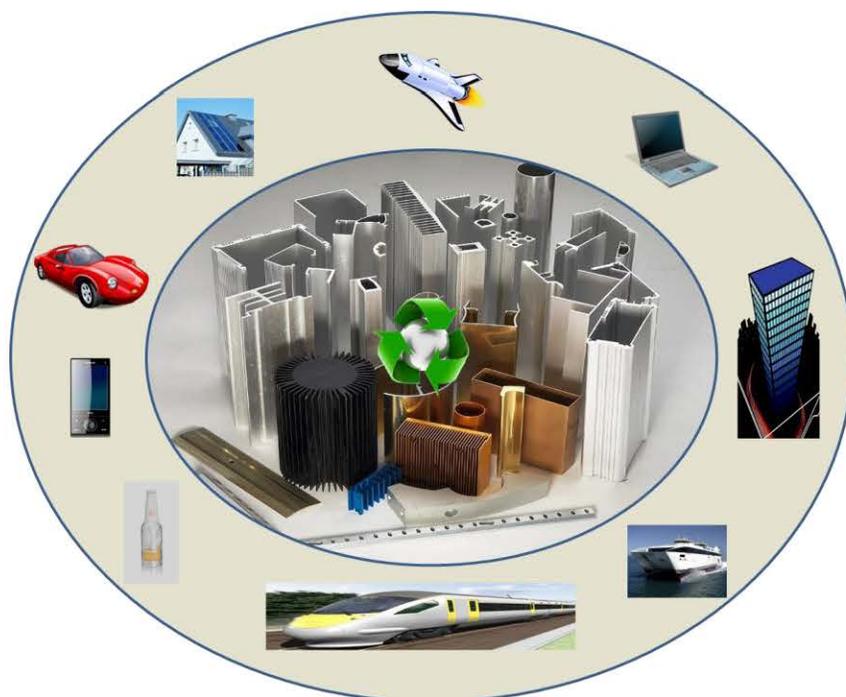


FIGURE 5 – TYPICAL INSTALLATION DETAIL

ENVIRONMENTAL PRODUCT DECLARATION

EXTRUDED ALUMINUM

INDUSTRY-AVERAGE EXTRUDED ALUMINUM
MANUFACTURED IN NORTH AMERICA



The Aluminum Association 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.



ENVIRONMENTAL PRODUCT DECLARATION



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 <input type="checkbox"/> INTERNAL <input checked="" type="checkbox"/> EXTERNAL |  Wade Stout, UL Environment | |
| |  Thomas Gloria, Industrial Ecology Consultants | |
| This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by: | | |

This EPD conforms with EN 15804

ENVIRONMENTAL PRODUCT DECLARATION



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 through 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) x 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 x 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 |



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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 |



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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 included 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.



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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 lives 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 destruction: 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.



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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.



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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 | MND | X | X |



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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 facilities. 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.

ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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



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)

| Parameter | Unit | Manufacturing | End-of-Life | Credits |
|-----------|-------------------------------------|---------------|-------------|-----------|
| | | 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 ₂ H 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

| Parameter | Unit | Manufacturing | End-of-Life | Credits |
|-----------|-----------------------|---------------|-------------|-----------|
| | | 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

| Parameter | Unit | Manufacturing | End-of-Life | Credits |
|-----------|-------------------|---------------|-------------|-----------|
| | | 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

| Parameter | Unit | Manufacturing | End-of-Life | Credits |
|-----------|------|---------------|-------------|-----------|
| | | 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 |



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

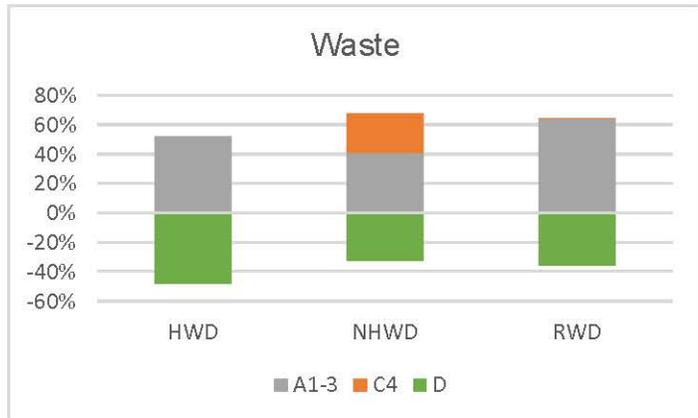
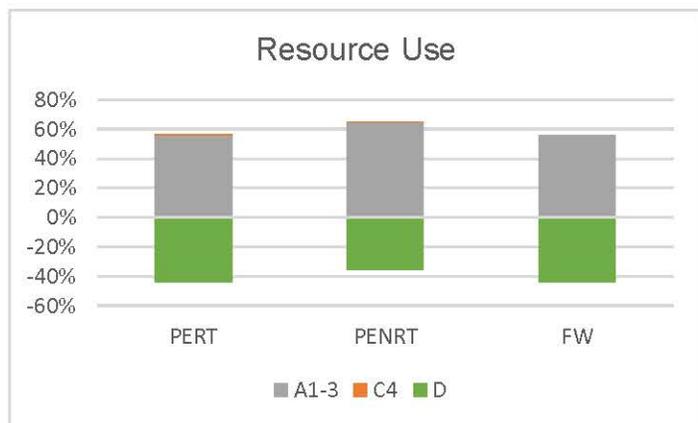
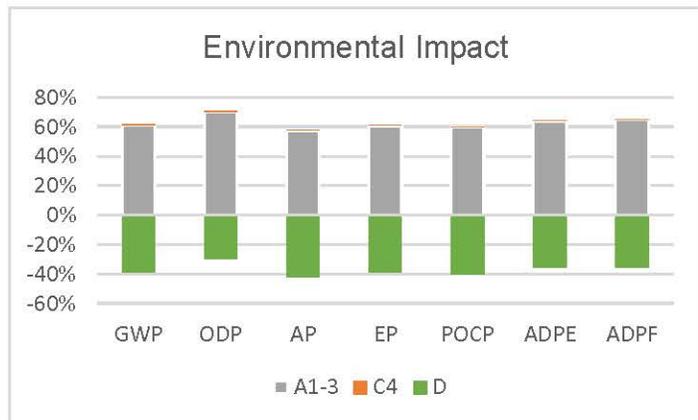
According to ISO 14025

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.



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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 | |



ENVIRONMENTAL PRODUCT DECLARATION



Extruded Aluminum
Products of Aluminum and Aluminum Alloys

According to ISO 14025

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.

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

| | | |
|---|---|---|
| <p>Inventory Reporting Format → Basic Method</p> <p>Threshold Disclosed Per → Product</p> <p>Threshold Level → 100 ppm</p> | <p>Residuals/Impurities Evaluation → Completed</p> <p>Explanation(s) provided : Yes</p> | <p><i>For all contents above the threshold, the manufacturer has:</i></p> <p>Characterized Yes <i>Provided weight and role.</i></p> <p>Screened Yes <i>Provided screening results using HPDC-approved methods.</i></p> <p>Identified Yes <i>Provided name and CAS RN or other identifier.</i></p> |
|---|---|---|

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 (C2CP11) | 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] |

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/>

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

GreenScreen (GS)

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

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.

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

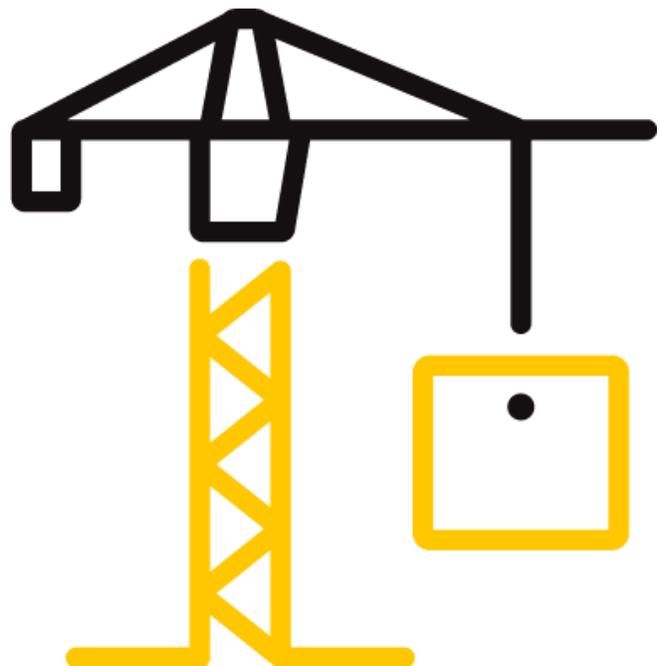
PAGES

11

DOCUMENT CONTROL NUMBER

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

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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 |
| TITLE: | Technician II Materials Laboratory |
| SIGNATURE: | |
| DATE: | 07/27/23 |

CSS:jmb/kae

| | |
|---------------------|---|
| REVIEWED BY: | Joseph M. Brickner |
| TITLE: | Laboratory Supervisor Materials Laboratory |
| SIGNATURE: | |
| DATE: | 07/27/23 |

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TEST REPORT FOR FAST PLANK INC.

Report No.: Q0000.01-106-31 R0

Date: 07/27/23

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 |

TEST REPORT FOR FAST PLANK INC.

Report No.: Q0000.01-106-31 R0

Date: 07/27/23

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" |

TEST REPORT FOR FAST PLANK INC.

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Date: 07/27/23

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 |

TEST REPORT FOR FAST PLANK INC.

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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.

TEST REPORT FOR FAST PLANK INC.

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SECTION 9 PHOTOGRAPHS



Photo No. 1
Material as Received

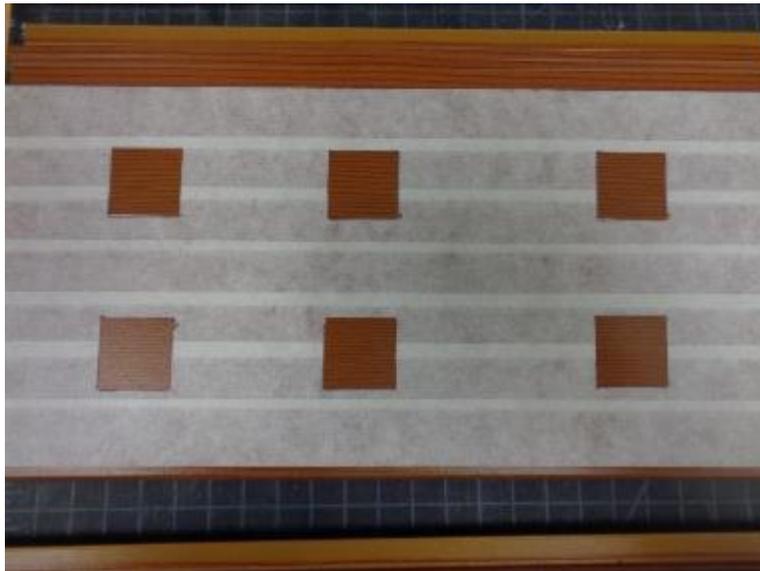


Photo No. 2
Panel with Areas Masked Off

TEST REPORT FOR FAST PLANK INC.

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Photo No. 3
Panel with Graffiti



Photo No. 4
Panel with Graffiti

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Photo No. 5
Panel Post Cleaning



Photo No. 6
Panel in Color IC Machine

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Photo No. 7
Panel in Color IC Machine



Photo No. 8
Panel in Color IC Machine



Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

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

TEST REPORT FOR FAST PLANK INC.

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SECTION 10

REVISION LOG

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



BOARD & BATTEN

INSTALLATION GUIDE



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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
- ✓ Complimentary Color Samples
- ✓ Rainscreen Wind Load
- ✓ No Obligation, Free Estimates
- ✓ Tested Pressure Equalized
- ✓ 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).

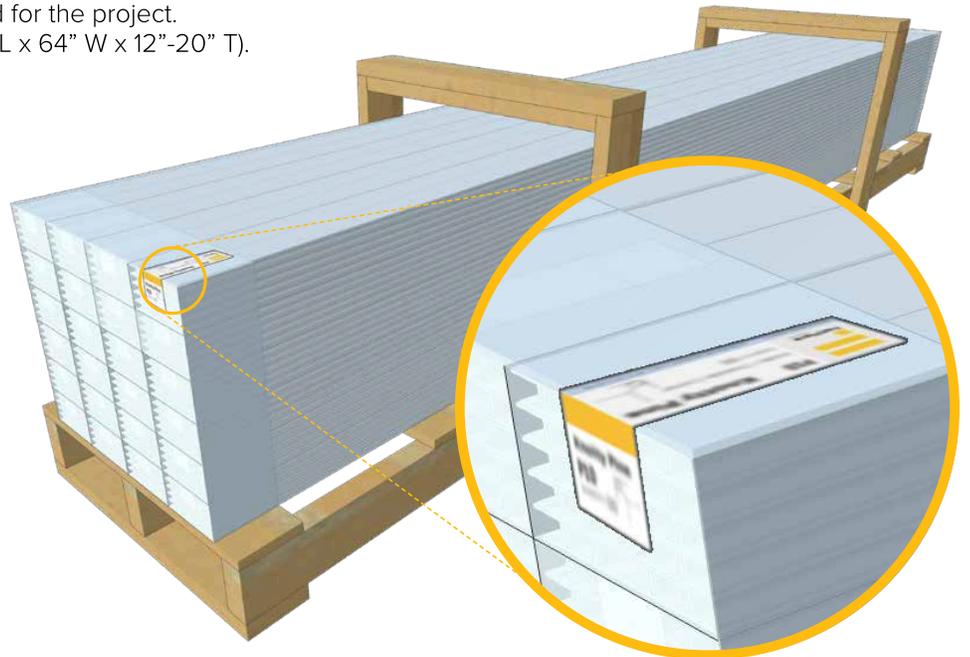


Figure 4.1



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.



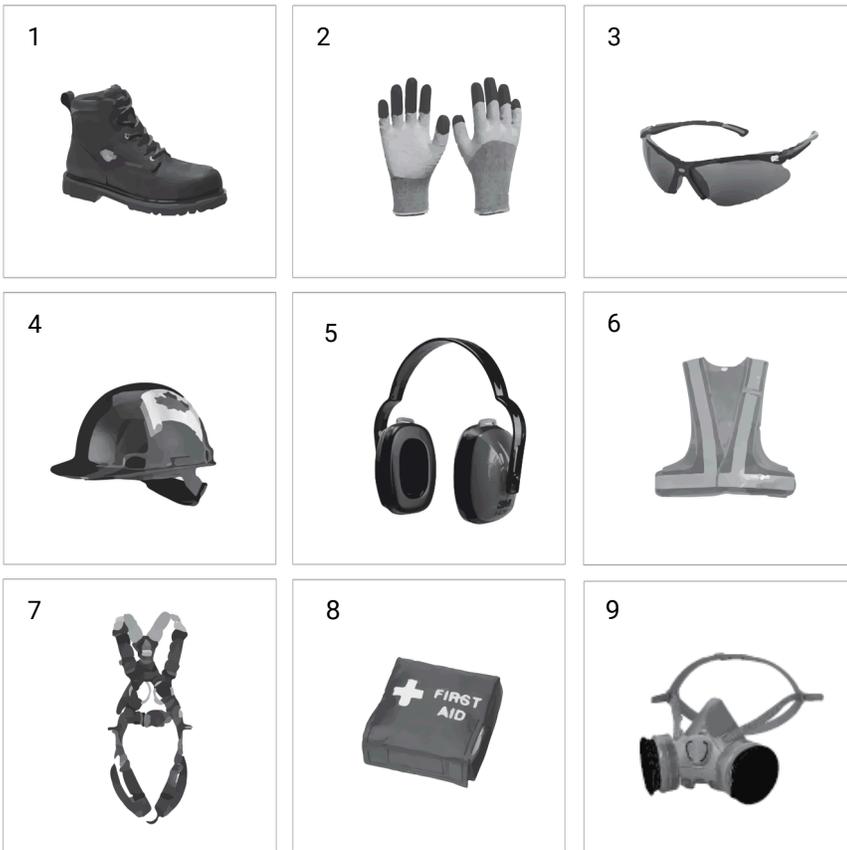
Storage & Handling

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



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 job's substrate
7. Rainscreen furring spacers (60-QP-A, 60-QP-R)



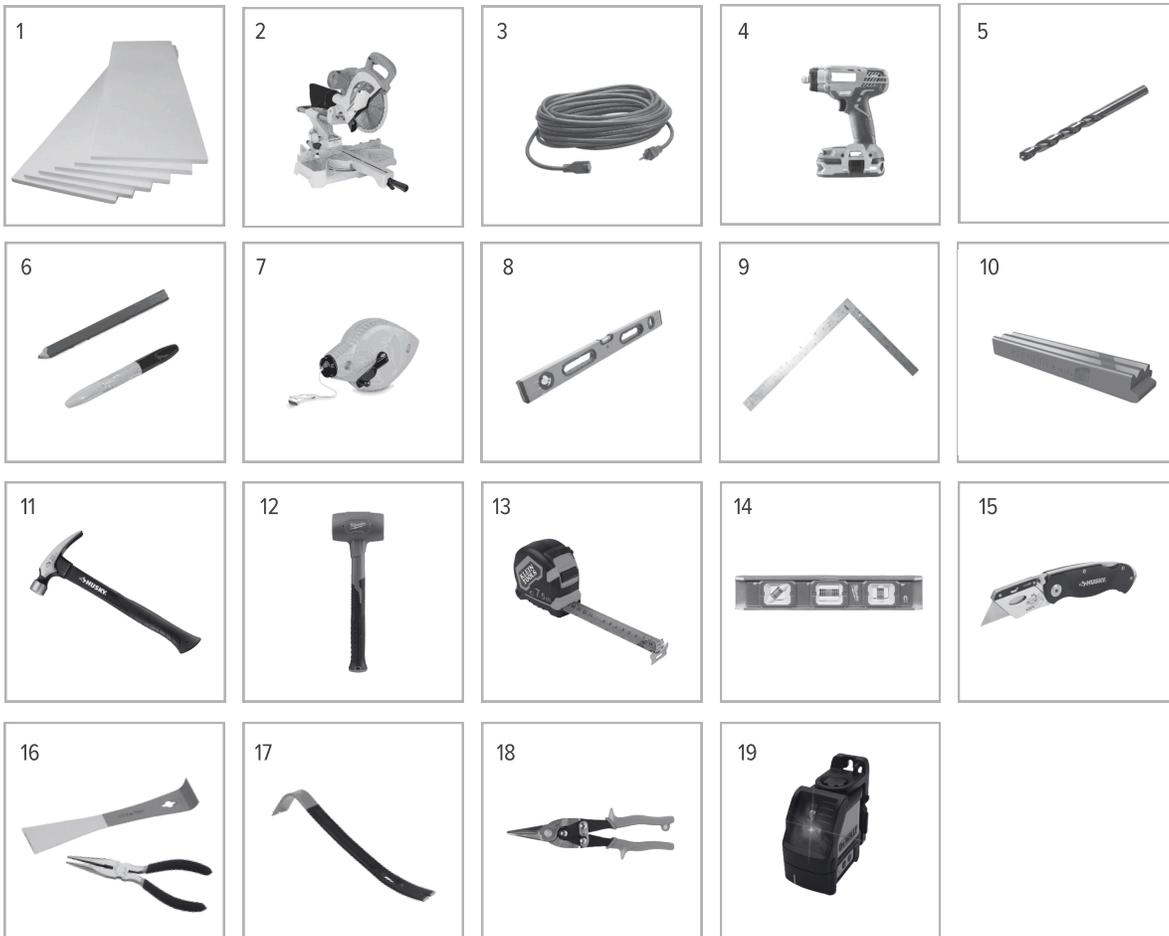
WARNING

Consult your local safety codes and regulations.

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)

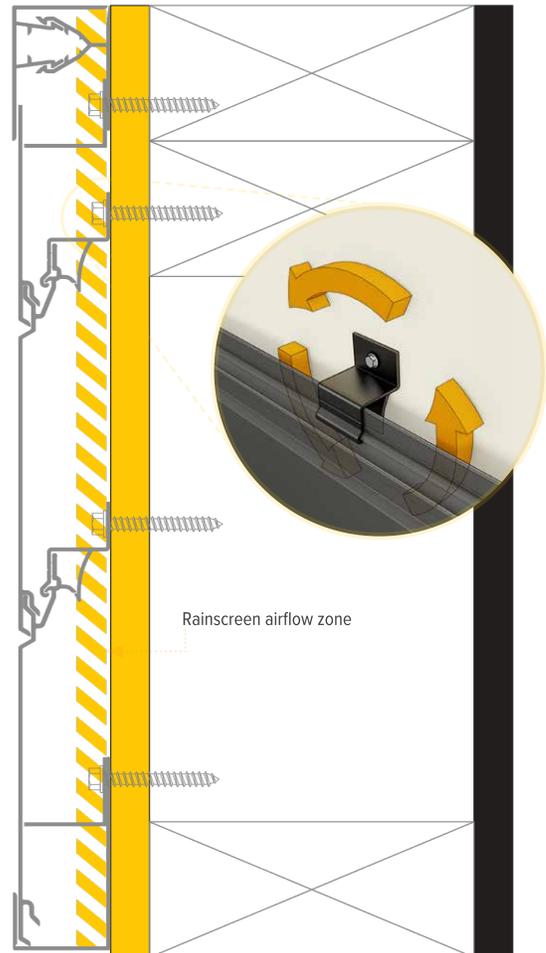


Figure 9.1

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 Board and Batten 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)

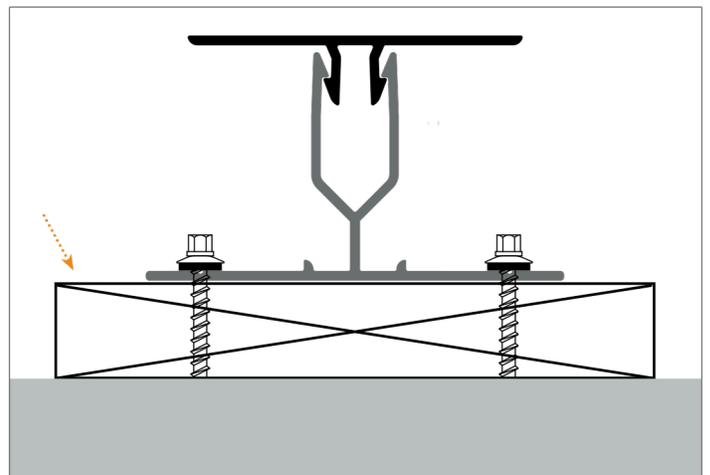


Figure 10.3



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.

| Plank Length | Ambient Temperature at Time of Install | | |
|--------------|--|---------------|---------------|
| | -10°C (14°F) | 10°C (50°F) | 30°C (86°F) |
| 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:

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

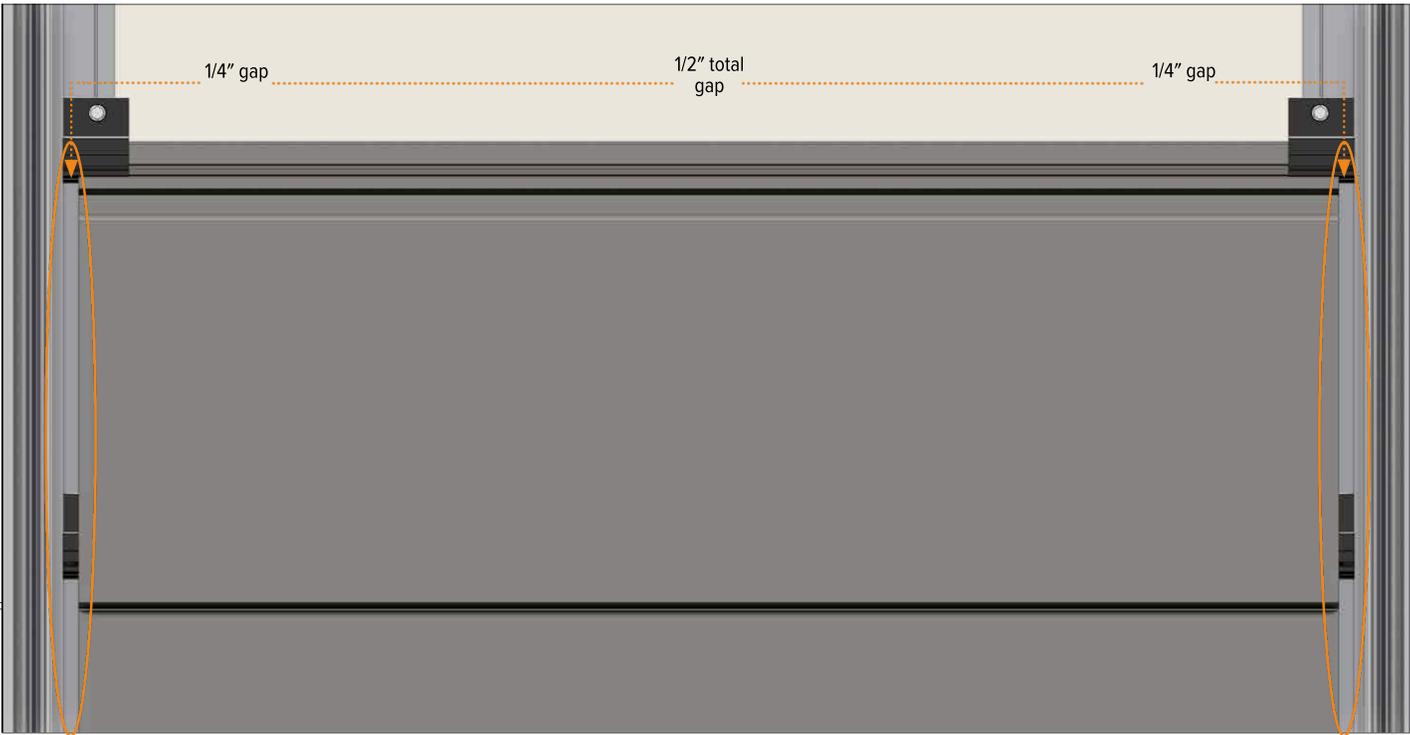


Figure 11.1



IMPORTANT

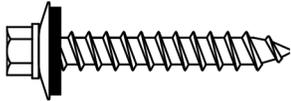
Failure to properly allow for contraction and expansion in your field cuts may cause buckling and void the product warranty. (Figure 11.1)

Fastener Info

Substrate Type

Wood

Use system fastener 1-1/2" WS112 FastPlank screw



Metal

Use system fastener 1-1/2" MS112 or 3/4" 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 Board & Batten installation.

Basic Install Process

Step 1: Prepare the Substrate

Ensure the substrate is fully prepared for siding installation. Verify that building paper and all flashing around doors and windows are properly installed and meet local building code requirements.

Step 2: Establish Starting Height

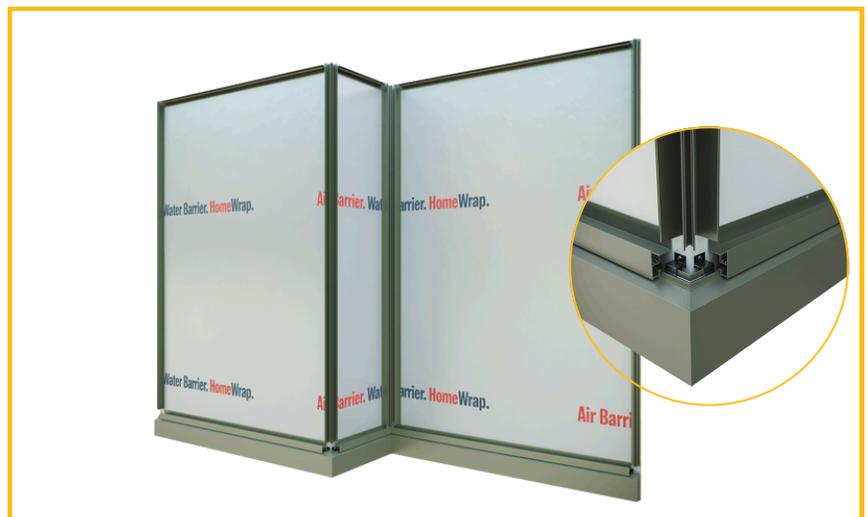
Determine and mark the height at which the first course of siding will begin, ensuring consistent alignment around the structure.

Step 3: Install Bold Starter

Install the bold starter along the bottom.

Step 4: Install Backplates

Install all vertical backplates, followed by all horizontal backplates



Basic Install Process (Continued)

Step 4: Install Panel Backers

Install P130 Panel Backers along the backplate on the side you are beginning your installation on.

The P130 Plank Backer is multi-purpose and designed with two integrated silicone cups.

- For vertical installations, install P130 Plank Backers at 9" on center.
- For horizontal installations, install P130 Plank Backers at 16" on center.
- If starting the installation with a batten, use the backer as supplied.
- If starting with a plank, snip the backer along the first groove, leaving one silicone cup in place.

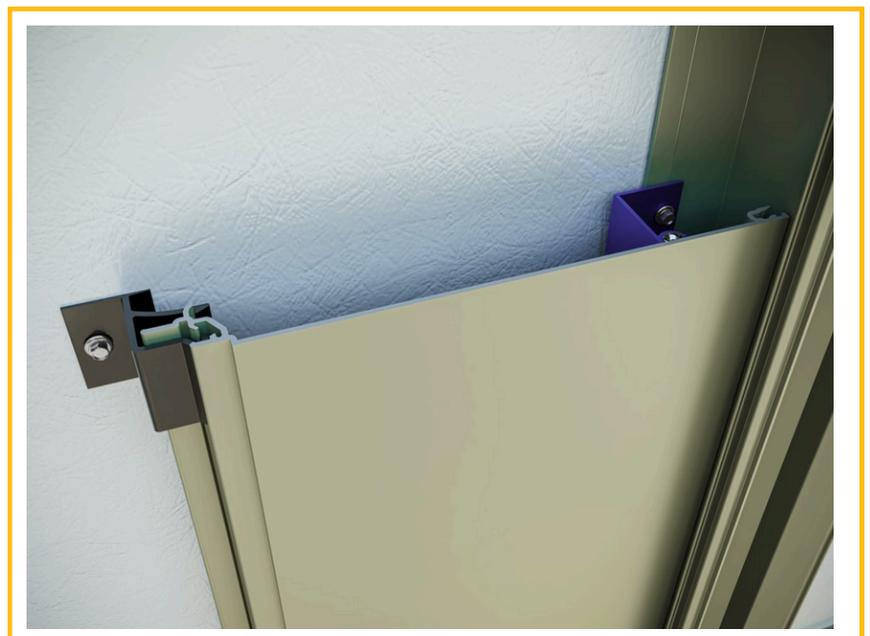


Step 5: Install Initial Plank or Batten

Fill the silicon cups of the P130 Plank Backers with adhesive.

Clip P22 Plank Clips onto your first plank or batten, every 32".

Slide the first plank or batten onto the plank backers, so that it is snug with the backplate.



Basic Install Process (Continued)

Step 6: Install Remainder of Planks and Battens.

Clip P22 Plank Clips onto your next plank or batten, every 32".

Slide the plank or batten into position so that it fits snug with the previous plank or batten.

Repeat this process until you reach the backplate at the end of the wall.



Step 7: Install Closure Pieces

Measure and cut 103 Closures size as required.

Snap in 103 Closures to conceal visible gaps- starting with horizontal Closures, followed by vertical Closures.



Basic Install Process (Continued)

Step 8: Install Top Caps

Once all planks, battens, and fillers are installed, snap the top caps into place. Install horizontal top caps first, followed by vertical top caps, overlapping the horizontal caps for a clean, finished edge.



Step 9 (optional): Install Perpendicular Battens

Screw the surface batten backplates to the wall, oriented perpendicular between battens.

Snap on surface batten top caps.



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

FAQ

What makes FastPlank® different from traditional siding?

FastPlank® offers:

- Wood-like visual appeal without weathering or deterioration.
- Durable aluminum construction that resists corrosion and extends exterior life.
- A built-in rainscreen air cavity that improves moisture management and reduces heat transfer.

Does FastPlank® function as a rainscreen system?

Yes. FastPlank® includes a pressure-equalized rainscreen design that helps expel moisture and debris more effectively, contributing to a longer-lasting façade.

What warranties come with FastPlank®?

FastPlank® is backed by:

- 20-year Finish Warranty
- 50-year Product Warranty
- These provide confidence in the longevity and performance of the system.

What is “oil-canning” and is FastPlank® subject to it?

Oil-canning refers to a wavy or rippled appearance in metal panels due to deformation. FastPlank® is engineered from heavy-gauge extruded T6 aluminum and mounted with a clip system that allows controlled expansion and contraction, minimizing the risk of oil-canning.

What is pitting? Will FastPlank® corrode?

Pitting is a type of surface corrosion caused when untreated aluminum is exposed to salt spray environments. With FastPlank®, surface finishes (anodizing or powder coatings) protect the aluminum, greatly reducing the risk of aesthetic corrosion.

What materials and finishes are available?

FastPlank® is manufactured from heavy-gauge 6063-T6 aluminum with a variety of woodgrain textures and solid colors, and can also be custom color-matched.

Can FastPlank® be installed vertically and horizontally?

Yes. FastPlank® can be installed in both vertical and horizontal orientations, giving design flexibility for different architectural styles.

Is technical support available?

Yes. Engage Building Products offers technical support, installation training resources, and a suite of guides and documentation to support architects, builders, and installers.

Where is FastPlank® typically used?

FastPlank® is suitable for a wide range of applications including single-family homes, multi-family buildings, commercial storefronts, institutional facilities, and more — anywhere durable, low-maintenance cladding with architectural appeal is desired.

Are FastPlank® innovations patented?

Yes, FastPlank® has received patents for each of our innovative features, as well as many of our individual trim profile options. Additionally, our organization has dozens of patent applications pending on new, innovative building and aluminum technologies. Stay tuned for exciting new aluminum building products in the future.

Installation Support: 1-877-973-8746



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





Smart Minds.
Smart Materials.

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