



Architectural Eco-Technology

SECTION 07 46 43

COMPOSITE CLADDING

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**\*\* NOTE TO SPECIFIER \*\* Geolam; sustainable wood-plastic composite products.**

This section is based on the products of Geolam, which is located at:

9 Shorncliffe Ave.

Toronto, ON, Canada M4V 1S9

Toll Free Tel: 877-627-3530

Tel: 416-548-7450

Fax: 416-548-7894

Email: [request info \(info@geolaminc.com\)](mailto:info@geolaminc.com)

Web: [www.geolaminc.com](http://www.geolaminc.com)

[\[Click Here\]](#) for additional information.

Geolam is a sustainable wood-plastic composite used primarily for decking and cladding. Made of 70 - 80 percent recycled materials and 100 percent recyclable, Geolam is an ecofriendly wood alternative and a sophisticated choice. Geolam technology reduces moisture content of wood fibers to 0 percent, producing a durable, slip-resistant compound protected from warping, mold, and color fading.

Thanks to its quality and exceptional lifespan, Geolam has become the leading global brand in the field of wood-plastic products and offers the most durable, aesthetically pleasing and eco-friendly building material available. The need for sustainable building materials continues to grow and after thirty years of success in Asia, Geolam is finally available in the United States and Canada.

Geolam is gaining recognition as one of the success stories of the Green Revolution: a sustainable material for the future of construction.

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

**\*\* NOTE TO SPECIFIER \*\* Delete, add items below not required for project.**

- A. Hybrid Aluminum/WPC cladding.

### 1.2 RELATED SECTIONS

**\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.**

- A. Section 06100 - Rough Carpentry.
- B. Section 06160 - Sheathing.

### 1.3 REFERENCES

**\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.**

- A. ASTM International (ASTM):

1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. JIS Japanese International Standards (JIS)
- C. DIN German Institute for Standardization (DIN)

#### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  1. Manufacturer's printed installation instructions, showing required preparation and installation procedures.
  2. Storage and handling requirements and recommendations.
  3. Installation methods including anchorage details.
  4. Cleaning and maintenance instructions.
- C. Shop Drawings: Provide shop drawings indicating details of construction, anchorage and installation. Include statement that anchorage methods comply with applicable building codes and loadings for the type of framing and condition of the supporting construction and details.
- D. Verification Samples: For each product specified, two samples 6 inches in length, representing materials, colors, patterns, textures, and finishes to be installed.
  1. Closeout Submittals: Documentation of manufacturer's warranty.

#### 1.5 QUALITY ASSURANCE

- A. Installer: Minimum 2 years' experience with similar technologies

**\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant the precaution. When deciding on the extent of the mock-up, consider the major different types of work on the project.**

- B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
  1. Finish areas designated by Architect.
  2. Do not proceed with remaining work until workmanship and appearance are approved by Architect.
  3. Subject to approval by Architect, mock-up may be retained as part of finish work.
- C. Pre-Installation Meetings: Conduct pre-installation meetings to verify project requirements, substrate conditions, construction documents, details and manufacturer's warranty requirements.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged rolls/pallets with identification labels intact.
- B. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

#### 1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

## 1.8 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard limited 10-year non-prorated warranty.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Geolam, which is located at: 9 Shorncliffe Ave.; Toronto, ON, Canada M4V 1S9; Toll Free Tel: 877-627-3530; Tel: 416-548-7450; Fax: 416-548-7894; Email: [requestinfo \(info@geolaminc.com\)](mailto:requestinfo@geolaminc.com); Web: [www.geolaminc.com](http://www.geolaminc.com)

**\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

**\*\* NOTE TO SPECIFIER \*\* Delete article if not required.**

### 2.2 HYBRID ALUMINUM/WPC CLADDING

**\*\* NOTE TO SPECIFIER \*\* Delete paragraphs not required.**

- A. Basis of Design: Vertigo 5010 Wood Hybrid Cladding as manufactured by Geolam.
1. Hot co-extrusion of aluminum and wood composite.
  2. Physical Properties:
    - a. Aluminum Type-A60636 Per JISH4100
    - b. Surface Finish AA10 Per JIS H8601
    - c. Tensile Strength-150 N/mm<sup>2</sup> or better
    - d. Load Bearing Capacity-110N/mm<sup>2</sup> or better
    - e. Bonding Layer-Olefin Resin
    - f. Surface Layer-Regenerated wood flour resin containing PP based Non-halogenated flame retardant
    - g. Accelerated Weathering Test-DIN ISO 16474-2 Passed
    - h. Accelerated Weathering Test-JIS A 1415 5000 hours. 2.1 DE
    - i. Salt Spray Test-DIN EN ISO 9227 NSS
    - j. Sulfur Dioxide Corrosion Testing DIN EN ISO 3221
    - k. Color Stability Test-JIS K5400
    - l. Aging Test-JIS K1571-2010
    - m. Core in Anodized Aluminum Alloy: A60635S-T5.
  3. Width: 7-1/4 in (184 mm). Exposure: 6-1/2 (165 mm).
  4. Depth: 1/2 in (13 mm).

**\*\* NOTE TO SPECIFIER \*\* Delete length option not required.**

5. Length: 12 ft (3658 mm).

**\*\* NOTE TO SPECIFIER \*\***

6. Length (ft / mm): \_\_\_\_\_.
7. Weight: 0.080 lbs. per ft.

**\*\* NOTE TO SPECIFIER \*\* Delete colors not required.**

8. Color: Teak.
9. Color: Rosewood.
10. Color: Ebony.
11. Color: Moleskin.

- B. Basis of Design: Vertigo 5011 Wood Hybrid Cladding as manufactured by Geolam.
1. Hot co-extrusion of aluminum and wood composite.

2. Physical Properties:
  - a. Aluminum Type-A60636 Per JISH4100
  - b. Surface Finish AA10 Per JIS H8601
  - c. Tensile Strength-150 N/mm<sup>2</sup> or better
  - d. Load Bearing Capacity-110N/mm<sup>2</sup> or better
  - e. Bonding Layer-Olefin Resin
  - f. Surface Layer-Regenerated wood flour resin containing PP based Non-halogenated flame retardant
  - g. Accelerated Weathering Test-DIN ISO 16474-2 Passed
  - h. Accelerated Weathering Test-JIS A 1415 5000 hours. 2.1 DE
  - i. Salt Spray Test-DIN EN ISO 9227 NSS
  - j. Sulfur Dioxide Corrosion Testing DIN EN ISO 3221
  - k. Color Stability Test-JIS K5400
  - l. Aging Test-JIS K1571-2010
  - m. Core in Anodized Aluminum Alloy: A60635S-T5.
3. Width: 5-1/8 in (130 mm).
4. Depth: 1/2 in (13 mm).

**\*\* NOTE TO SPECIFIER \*\* Delete length option not required.**

5. Length: 12 ft (3658 mm).

**\*\* NOTE TO SPECIFIER \*\* Custom lengths available up to 18 ft (5486 mm).**

6. Length (ft / mm): \_\_\_\_\_.
7. Weight: 0.52 pounds plf.

**\*\* NOTE TO SPECIFIER \*\* Delete colors not required.**

8. Color: Teak.
9. Color: Rosewood.
10. Color: Ebony.
11. Color: Moleskin.

**\*\* NOTE TO SPECIFIER \*\* Delete article if not required.**

## PART 3 EXECUTION

### 2.1 EXAMINATION AND PREPARATION

- A. Examine existing conditions and do not proceed with installation until substrates have been properly prepared and deviations from manufacturer's recommended tolerances are corrected. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- B. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.
- C. Commencement of installation constitutes acceptance of conditions.

### 3.2.1 INSTALLATION

- 3.2.2 Install in accordance with manufacturer's written instructions and recommendations including but not limited to the following.

**\*\* NOTE TO SPECIFIER \*\* Delete if not required.**

### 3.2.3 Cladding:

- 3.2.3.1 Sheathing and code compliant weather resistive barrier.

**\*\* NOTE TO SPECIFIER \*\* Delete if not required.**

- 3.2.4 Protect installed work from damage due to subsequent construction activity on the site.

3.2.5 Clean using materials recommended by the manufacturer to remove stains, dirt and debris prior to final acceptance.

END OF SECTION