

# Architectural Eco-Technology

### SECTION 06 73 00 COMPOSITE DECKING

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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)

Web: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. Composite decking.

# 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.

# 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. JIS Japanese International Standards (JIS)

### 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 drainage mat materials.

\*\* 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 non prorated 10 year 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:request info (info@geolaminc.com); Web: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.
- Requests for substitutions will be considered in accordance with provisions of Section 01600.

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

### 2.2 COMPOSITE DECKING

- A. Basis of Design: Qualita 020C Wood Hybrid Decking as manufactured by Geolam.
  - Co-extrusion of wood composite.
  - 2. Physical Properties:
    - Technology:2G co-extruded.
    - b. Tolerances in mm+0.5/-1.5
    - c. Span Rating 24" o.c.
    - d. Water Absorption Property-Coefficient 0.1%/Length (ratio of change):0%.
    - e. Strength-
      - 1) Bending strength-35-40 Mpa
      - 2) Charpy Impact: 6-7Kj/m2
      - 3) Young's Modulus:4500 Mpa
    - f. Temperature Characteristics:
      - 1) Bending Strength: 101.7 deg. C
      - 2) Linear Expansion Coefficient- 4 x 10(-5)
    - g. Skid Resistance
      - 1) Dry-.070
      - 2) Wet-.071
      - 3) Wet +dust-0.42
  - 3. Hollow Cell Profile Dimensions:
    - a. Width: 5-1/2 in (145 mm)
    - b. Depth: 1-1/4 in (30 mm).
  - 4. Weight: 2.21 lbs per ft.

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

- Color: Teak.
- 6. Color: Rosewood.
- 7. Color: Ebony.
- 8. Color: Moleskin.

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

# 1.1 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.

### 1.2 INSTALLATION

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

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

- B. Decking:
  - 1. Support Frame Spacing:
    - a. Deck Boards 90 Degrees to Support Joists:
      - 1) Qualita 020 Deck Boards: 24 in (600 mm) on center, maximum.
    - b. Deck Boards at Angle Other Than 90 degrees to Support Joist:
      - 1) Maximum 16 in (406 mm) on center.
  - 2. Deck Boards Used as Stair Treads:
    - Install with maximum span relative to board being used.
    - b. Installed in a minimum two-span condition.
    - c. Grooved deck boards may not be used as stair treads.
  - 3. Face-Fastened Decking: Screws at each support.
    - a. Minimum Edge and End Fastener Distance:
      - 1) From Board Edge: 0.75 inches (19 mm).
      - 2) From Board End: 1.5 inch (38 mm).
- C. Protect installed work from damage due to subsequent construction activity on the site.
- D. Clean using materials recommended by the manufacturer to remove stains, dirt and debris prior to final acceptance.

**END OF SECTION**