****

# SECTION 07 44 56

# HIGH-DENSITY FIBER CEMENT CLADDING

## PART 1. GENERAL

### 1.1 Section Includes

1.1.1 High-density fibre cement panels, including.

1.1.1.1 Through-colored panels for exterior and interior cladding, including:

a. Lattice

b. Terra

c. Panolith

1.1.2 Cladding attachment systems and related components.

### 1.2 Related Sections

1.2.1 Section 05 40 00 – Cold-Formed Metal Framing.
1.2.2 Section 06 01 10 – Rough Carpentry.
1.2.3 Section 07 21 26 – Blown Insulation.
1.2.4 Section 07 27 00 – Air Barriers.

### 1.3 References

1.3.1 Standards and guidelines:
CAN/ULC S102: Canadian standard developed by the Underwriters Laboratories of Canada (ULC).
CAN/ULC S114: Canadian standard for non-combustibility in building materials.

### 1.4 Submittals

1.4.1 Provide documentation in compliance with Section 01 30 00:
Manufacturer's product data, including preparation, storage, handling, and installation guidelines.
Shop drawings for non-standard applications.
Engineered attachment system designs, including static calculations and installation details.
Sample submissions for color, texture, and finish.

**1.5 Quality Assurance**

1.5.1 Installer qualifications: Minimum of two years of experience with comparable products.

1.5.2 Color durability: Minimal change after 3,000 hours of QUV testing.

1.5.3 Mock-up: Provide a mock-up for approval of surface preparation, workmanship, and aesthetics.

### 1.6 Delivery, Handling, and Storage

1.6.1 Deliver materials in original, undamaged packaging. Store per manufacturer’s recommendations to prevent damage and contamination.

### 1.7 Project Conditions

1.7.1 Maintain suitable environmental conditions for installation, as specified by the manufacturer.

### 1.8 Warranty

### 1.8.1 General Warranty: The manufacturer guarantees that its products are produced to meet established material standards and are free from defects in both materials and workmanship.

### 1.8.1.1 Warranty Conditions: Coverage is valid only if the products are installed and utilized in strict accordance with the manufacturer’s published guidelines and specifications.

1.8.1.2 Warranty Period and Claims: Warranty claims must be submitted in writing within 30 days of discovering the defect. The warranty remains in effect for a duration of ten years from the date of product shipment by the manufacturer.

## PART 2. PRODUCTS

### 2.1 Manufacturer

2.1.1 Product basis: CFC High-Density Fiber Cement Panels.

2.1.2 No substitutions permitted without prior approval under Section 01 60 00.

### 2.2 Panel Materials

2.2.1 Features:
Application: Suitable for exterior and interior use.
Thickness: Minimum 8mm, 10mm, 12mm.

Panel Width: 1219.2 mm

Panel Length: 2438.4 mm, 3048mm
Finish: Through-colored, matte, and weather-resistant, with protection against stains and dirt.
Available colors: Midnight, Ash, Pewter, Dove, Dune, Sand Stone, Coral, Copper Dawn, Olive, and Java. Custom colors accepted with min order quantity.
Fire performance: Meets or exceeds standards (CAN/ULC S114, CAN/ULC S102).

### 2.3 Support Systems

2.3.1 Cladding attachment options:
Steel support members: Minimum 18-gauge galvanized steel.
Aluminum support members: Minimum 2 mm thickness.
Wood support members: Pressure-treated wood profiles.
Weather barriers: UV-protected membrane for ventilated rain screen systems.

**2.4. Attachment Systems**

**2.4.1 Steel Support Framework:**

2.4.1.1 Components: "Hat" or "Z" shaped profiles provided by third-party suppliers.

2.4.1.1.1 Specifications: Steel construction with a minimum thickness of

18-gauge and G90-grade galvanization.

2.4.1.2 Protective Layer: UV-resistant membrane such as Delta-Fassade S.

2.4.1.2.1 Application: Suitable for open-joint ventilated rain screen configurations.

**2.4.2 Aluminum Support Framework:**

2.4.2.1 Components: "Hat" or "Z" shaped profiles provided by third-party suppliers.

2.4.2.1.1 Specifications: Aluminum profiles with a minimum thickness of 2 mm.

2.4.2.2 Protective Layer: UV-resistant membrane such as Delta-Fassade S.

2.4.2.2.1 Application: Suitable for open-joint ventilated rain screen configurations.

**2.4.3 Wooden Support Framework:**

2.4.3.1 Wooden profiles provided by third-party suppliers.

2.4.3.1.1 Specifications: Pressure-treated wood for durability and protection against moisture.

2.4.3.2 Protective Layer: UV-resistant membrane such as Delta-Fassade S. A UV-stable, water-resistive, and vapor-permeable barrier specifically designed for open-joint cladding systems, providing long-term protection against moisture and air infiltration.

2.4.3.2.1 Application: Suitable for open-joint ventilated rain screen configurations.

## Part 3. EXECUTION

### 3.1 Examination

3.1.1(3.1.2) Inspect substrates before installation. Notify the architect of any unsatisfactory conditions.

### 3.2 Preparation

3.2.1 (3.2.2) Clean and prepare surfaces following manufacturer’s recommendations to ensure proper adhesion and performance.

### 3.3 Installation

3.3.1 Follow manufacturer’s guidelines and approved submittals. Ensure compliance with local codes and engineering calculations.

3.3.2 Maintain continuous airflow behind panels for rain screen systems:
Airspace: Minimum 3/4 inch (20 mm); increase to 1-5/8 inch (40 mm) for walls over 60 feet high. Ensure uninterrupted airflow at openings and terminations.

### 3.4 Exterior Cladding | Rainscreen Applications

3.4.1 Detailing:

3.4.1.1 Ensure an air gap of at least 3/4 inch (20 mm) at the top and bottom of walls or terminations to promote airflow behind the panels. Vertical airflow should not be obstructed at windows, doors, eaves, or building bases. Maintain continuous airflow from the bottom to the top behind each panel.For walls exceeding 60 feet (18 m) in height, expand the ventilated cavity to 1-5/8 inches (40 mm). Adequate airflow behind fiber cement panels is vital for rain screen system performance.

3.4.1.2 Use fasteners designed to allow for thermal expansion and contraction of metal components without hindering panel installation.

3.4.1.3 Begin panel installation at the top of the structure and work downward.

3.4.1.4 On straight walls, start installation at the center and proceed outward.

3.4.1.5 For walls with interior corners, begin installation at the corner and move across the surface.

 3.4.1.6 Arrange panels in a vertical straight pattern. Follow specified panel

dimensions.

3.4.1.7 Arrange panels in a horizontal straight pattern. Follow specified panel dimensions.

3.4.1.8 Arrange panels in a horizontal semi-pattern. Follow specified panel dimensions.

3.4.2 Installation Requirements: Follow manufacturer’s guidelines for rain screen

 systems during installation.

 3.4.2.1 Ensure the attachment system aligns with the engineered

 design for cladding support frameworks.

### 3.5 PROTECTION AND FINALIZATION

3.5.1 (3.5.2) Protect installed panels during construction. Address and repair damages prior to project completion.

**END OF SECTION**