

**SECTION 06 64 00**

**PLASTIC PANELING**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

This section specifies fiberglass reinforced panels for ceiling installation.

**1.2 RELATED WORK**

- A. Color, pattern, type and location of panels: Section 09 06 00, SCHEDULE FOR FINISHES.
- B. Gypsum wall board: Section 09 29 00, GYPSUM BOARD.

**1.3 SUBMITTALS**

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Samples:
  - 1. Submit selection and verification samples for finishes, colors and textures. Submit 2 samples of each type of panel, trim and fastener.
- C. Manufacturer's Literature and Data:
  - 1. Primer and adhesive.
  - 2. Complete instructions for installation of panels.
  - 3. Maintenance instructions for each type of panels.
- D. Certificate: Flame spread, and smoke density factors.

**1.4 QUALITY ASSURANCE**

- A. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
- B. Surface-Burning Characteristics: Determined by testing identical products according to ASTM E84 by a testing agency acceptable to authorities having jurisdiction.
  - 1. Flame-Spread Index: 25 (Class A).
  - 2. Smoke-Developed Index: 450.
- C. Certificates:
  - 1. Submit manufacturer's certificate that products meet or exceed specified requirements.
  - 2. Submit certificate of installer's qualifications stating he has a minimum of 5 years experience with composite panel work similar in scope and size to this project.

**1.5 WARRANTY**

- A. Warranty Period: Ten (10) years commencing on Date of Substantial Completion.
- B. Warranty extends to products assembled / installed and used in the manner intended and does not cover damage or failure caused by: misuse, abuse or accidents, exposure to extreme temperature, improper installation, improper maintenance and exposure to water or excessive humidity or excessive moisture.

**1.6 DELIVERY, STORAGE AND HANDLING**

- A. Deliver panels, sealers, fasteners and accessories specified, to the job site in sealed, labeled containers, each bearing the manufacturer's names, brand names and color designations.
- B. Store panels laid flat, not upright, in a dry area with heat maintained at 16 °C (60 °F) minimum with humidity normal to the space or area where wall covering is to be installed.

**1.7 JOB CONDITIONS**

- A. Temperatures:
  - 1. Do not start ceiling panel work until surfaces and materials have been maintained at 16 °C (60 °F) minimum, or higher if recommended by panel manufacturer, for three days before work begins.
  - 2. Maintain minimum temperature of 16 °C (60 °F) during the work and until primers and adhesives have fully dried or cured.
- B. Ventilation: Provide continuous ventilation as required to rid the spaces in which the ceiling coverings are being installed of volatile compounds given off by the ceiling coverings, sealers and adhesives and as recommended by the product manufacturer for full drying or curing.
- C. Protect other surfaces from damage which may be caused by this work. Provide drop cloths, shields and protective equipment to prevent primers, adhesives or ceiling covering from fouling adjacent surfaces and in particular, storage and preparation areas.
- D. Store flammable rubbish, waste, cloths and materials which may constitute a fire hazard, in closed metal containers. Daily remove and properly dispose of flammable wastes from the site.

**1.8 APPLICABLE PUBLICATIONS**

- A. The publications listed below form a part of this specification to the extend referenced. The publications are referenced in text by the basic designation only.
  - 1. ASTM D2583 - Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor.

2. ASTM D5319 - Standard Specification for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels.
3. ASTM D5420 - Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact).
4. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

**PART 2 - PRODUCTS**

**2.1 FIBERGLASS REINFORCED PLASTIC (FRP) PANELS**

- A. General: Fiberglass reinforced plastic panels complying with ASTM D5319.
  1. Low-Emitting Materials: Comply with testing and product requirements of California Department of Health Services standards for Volatile Organic Emissions.
- B. Basis of Design Product: Subject to compliance with requirements provide Crane Composites, Inc.; Fire-X Glasbord (FX).
- C. Product Options:
  1. Color: As selected by COR from manufacturer's full range.
  2. Ceiling Panel Size: 23-3/4 inches (0.6 m) by 47-3/4 inches (1.2 m).

**2.2 MOLDINGS, TRIM AND CAPS**

- A One-piece extruded polypropylene or PVC, configured to cover panel edges and corners.

**2.3 PANEL ADHESIVE**

- A. Adhesive shall have a VOC content of 50g/L or less.

**2.4 PANEL SEALANT**

- A. Sealant as recommended by panel manufacturer.
- B. Sealant shall have a VOC content of 250g/L or less.

**2.5 RIVETS**

- A. Nylon drive rivets shall match color of panels. Spacing and installation as recommended by panel manufacturer.

**PART 3 - EXECUTION**

**3.1 EXAMINATION**

- A. General: Comply with manufacturer's product data, including product technical bulletins, and installation instructions in product catalogs and product packaging.
- B. Verify that substrates previously installed under other sections are acceptable for product installation in accordance with FRP manufacturer's instructions.
  1. Examine substrate surfaces to determine that corners are plumb and straight, that surfaces are smooth, sound and uniform, that nails or

screw fasteners are countersunk, and that joints and cracks are filled flush and smooth with adjoining surfaces.

2. Do not begin panel installation until substrate surfaces are in satisfactory condition.

### **3.2 PREPARATION**

- A. Clean substrates to remove substances that could impair bond of adhesive, including oil, grease, dirt, dust or other contamination.
- B. Condition panels by unpacking and placing in installation space no less than 24 hours before installation.
- C. Lay out paneling before beginning installation. Locate panel joints to provide equal panel widths at ends of walls and so that trimmed panels at corners are not less than 12 inches (300 mm) wide.

### **3.3 INSTALLATION**

- A. Install according to manufacturer's installation instructions.
- B. Cut and drill panels with carbide tipped saw blades or drill bits, or cut with snips.
- C. Install panels with manufacturer's recommended gap for panel field and corner joints.
  1. Pre-drill fastener holes in panels, 1/8 inch (3.2 mm) greater in diameter than rivet fastener.
  2. Install panels in a full spread of adhesive. For trowel type and application of adhesive, follow adhesive manufacturer's recommendations.
- D. Sealant:
  1. Fill grooves in trim accessories with sealant before installing panels and bed inside corner trim in a bead of sealant.
  2. Remove excess sealant and smears as paneling is installed. Clean with solvent recommended by sealant manufacturer and then wipe with clean dry cloths.

### **3.4 CLEAN-UP**

- A. Remove temporary coverings and protection of adjacent work areas.
- B. Repair or replace any installed products that have been damaged.
- C. Clean installed panels in accordance with manufacturer's instructions prior to Owner's acceptance.

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