

## SECTION 09 5433

### DECORATIVE PANEL CEILINGS

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Work of this Section includes but is not limited to the following:
  - 1. High density polystyrene ceiling panels.
- B. Related Documents and Sections: Examine Contract Documents for requirements that directly affect or are affected by Work of this Section. Other Documents and Sections that directly relate to work of this Section include, but are not limited to:
  - 1. General provisions of the Contract, including General and Supplementary Conditions, and Division 01 General Requirements Specification Sections.
  - 2. Section 09 2116 - GYPSUM BOARD ASSEMBLIES.
  - 3. Division 21 - FIRE SUPPRESSION.
  - 4. Division 23 - HVAC.
  - 5. Division 26 - ELECTRICAL.

##### 1.2 SUBMITTALS

- A. Product Data: For each type of ceiling indicated. Include construction details, material descriptions, weights, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: Show thicknesses, finishes, joints, installation tolerances, and anchorage details. Indicate attachment methods, joint treatments, and clearances.
  - 1. Coordination Drawings: Reflected ceiling plans drawn to scale and coordinating penetrations and ceiling-mounted items.
- C. Samples: For each exposed product in each profile and size required, and as follows:
  - 1. Three 12 in. x 12 in. samples demonstrating surface quality.

##### 1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed installations similar in material, design, and extent to those indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.
- C. Fire-Test-Response Characteristics: Provide fiberglass fabrications with the following surface-burning characteristics as determined by testing identical products per ASTM E 84 by UL or another independent testing and inspecting agency acceptable to authorities having jurisdiction:
  - 1. Flame Spread: 25 or less.
  - 2. Smoke Developed: 450 or less.
- D. Visual Mockups: Before installing each system specified herein, build mockups for each form of construction and finish required to verify selections made under sample Submittals and to

demonstrate aesthetic effects and qualities of materials and execution. Build mockups to comply with the following requirements, using materials indicated for the completed Work:

1. Build visual mockups in the location and of the size indicated or, if not indicated, as directed by Architect.
2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
3. Demonstrate the proposed range of aesthetic effects and workmanship.
4. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
5. Demolish and remove mockups when directed.
6. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

#### 1.4 PROJECT CONDITIONS

- A. Field Measurements: Where panels are indicated to fit to other construction, verify dimensions of other construction by field measurements and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
  1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating products without field measurements. Coordinate construction to ensure that actual dimensions correspond to established dimensions.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with manufacturer's written instructions for storage, temperature, and humidity requirements.
- B. Handle ceiling panels carefully to avoid chipping edges or damaging units in any way.

### PART 2 PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Fire-Test-Response Characteristics: Systems shall comply with "Surface-Burning Characteristics" or "Fire Growth Contribution" Subparagraph below, or both, as determined by testing identical products by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
  1. Surface-Burning Characteristics: Comply with ASTM E 84 or UL 723; testing by a qualified testing agency on systems prepared according to ASTM E 2573. Identify products with appropriate markings of applicable testing agency.
    - a. Flame-Spread Index: 25 or less.
    - b. Smoke-Developed Index: 450 or less.
  2. Fire Growth Contribution: Comply with acceptance criteria of local code and authorities having jurisdiction when tested according to NFPA 286.

#### 2.2 DECORATIVE PANEL CEILINGS

- A. Refer to Section 09 0600.

### **PART 3 EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine substrates, areas, and conditions, including structural framing to which panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.
  - 1. Proceed with installation only after unsatisfactory conditions have been corrected to satisfaction of Architect.

#### **3.2 PREPARATION**

- A. Measure each ceiling area and establish layout of panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

#### **3.3 INSTALLATION**

- A. Install panels according to manufacturer's instructions.

#### **3.4 CLOSEOUT**

- A. Clean exposed surfaces of panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

#### **3.5 WASTE MANAGEMENT**

- A. Separate and dispose of waste in accordance with the Project's Waste Management Plan.

**END OF SECTION**

**THIS PAGE INTENTIONALLY LEFT BLANK**