

## SECTION 09840

### FLAT FACED METAL ACOUSTICAL WALL PANELS

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Sound Absorptive Wall Panels
- B. Sound Absorptive Ceiling Panels [Clouds]
- C. Sound Absorptive Ceiling Tile
- D. Miscellaneous Accessories

##### 1.02 REFERENCES

- A. ASTM International:
  - 1. ASTM C423 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - 2. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
  - 3. ASTM E795 Standard Practices for Mounting Test Specimens During Sound Absorption Tests.

##### 1.03 SYSTEM DESCRIPTION

- A. Performance Requirements:
  - 1. Surface Burning Characteristics ASTM E84 Class I

##### 1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data sheet, for specified products.
- C. Shop Drawings: Submit shop drawings showing layout, edge profiles and panel components, including anchorage, accessories, finish colors and textures.
- D. Samples: Submit selection and verification samples of finishes, colors and textures.
- E. Test Reports: Certified test reports showing compliance with specified performance requirements.

##### 1.05 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements Section.
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

##### 1.06 PROJECT CONDITIONS

- A. Environmental Requirements: Do not install panels until building has been enclosed and environmental conditions approximate interior conditions that will exist during occupancy.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

- A. Acceptable Manufacturer: Sound Seal, Inc., located at 50 HP Almgren Drive, Agawam, MA 01001. Contact Sound Seal Architectural Division at 413-78-1770, Email: [soundquality@soundseal.com](mailto:soundquality@soundseal.com); Web: [www.soundseal.com](http://www.soundseal.com)
- B. Substitutions: No substitutions permitted.

### 2.02 FLAT FACED ACOUSTICAL WALL PANELS

- A. Acoustic Panels: Sound Seal TRANQUILITY Metal Absorptive Wall Panels

- 1. Panel Thickness: 2 inches (50.8 mm)
- 2. Panel Width: 30 inches (762 mm)

- B. Panel Performance:

- 1. Sound Absorption: Provide panels that are certified to meet the following minimum sound absorption coefficients when tested in accordance with ASTM C423 and E 795:

#### Flush Mount:

125 Hz:	0.22
250 Hz:	0.59
500 Hz:	1.19
1000 Hz:	1.23
2000 Hz:	1.16
4000 Hz:	1.22
NRC:	1.05, minimum

#### Stand-Off Mount:

125 Hz:	0.41
250 Hz:	0.92
500 Hz:	1.31
1000 Hz:	1.23
2000 Hz:	1.25
4000 Hz:	1.32
NRC:	1.16, minimum

- 2. Fire: Provide panels when tested in accordance with ASTM E84 demonstrate: Flame Spread = 10, Smoke Developed=10.

- C. Panel Construction:

- 1. All materials to be A60 galvanealed steel.

- 2. Panel body shall be fully formed one piece perforated metal shell. Material shall be minimum 22 gauge (.76 mm) steel sheet perforated with 3/32 inch (2 mm) diameter holes on 5/32 inch (4 mm) staggered centers for a 33% open area.

- 3. Internal framing and reinforcement s when required shall be a minimum of 20 gauge (0.9mm) steel channels spotwelded and / or riveted to the panel body shell.

- D. Acoustical Insulation: Fill shall be 2 inch (50 mm) thick fiberglass or mineral wool having a density of not less than 1.5 pounds per cubic foot (24 kg/cubic m). When required, panel fill shall be totally encased in a 2 mil thick heat sealed black poly wrap
- E. Finish: Manufacturer's standard baked polyester powder coat.
- F. Panel Mounting: Manufacturer's standard minimum 14 gauge (1.90 mm) [concealed z-clip flush or stand-off mounting brackets], [exposed edge mount brackets], [exposed top Z and bottom J mounting channels].

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Examine surfaces to receive acoustical panels. Do not begin installation until any unsatisfactory conditions have been corrected.

#### **3.02 INSTALLATION**

- A. Install panels on walls in locations and in patterns as indicated on the drawings.
- B. Install each panel in accordance with manufacturer's instructions using approved anchors and fasteners.

#### **3.03 CLEANING**

- A. Follow manufacturer's instructions for cleaning panels soiled during installation. Replace panels that cannot be cleaned to as new condition.
- B. Keep site free from accumulation of waste and debris.

**END OF SECTION**