

SECTION 09840

PERFORATED METAL ACOUSTICAL CEILING TILES

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; Web: www.soundseal.com
- B. Substitutions: No substitutions permitted.

2.02 LAY-IN ACOUSTICAL CEILING TILES

- A. Acoustic Tiles: Sound Seal SERENITY Metal Absorptive Ceiling Tiles
 - 1. Tile Thickness: 1 inch (25.4 mm) or 2 inches (50.8 mm)
 - 2. Tile Size: To fit standard ceiling for 24 inches (607 mm) x 24 inches (607 mm) grid and 24 inches (607 mm) x 48 inches (1214 mm). Specify either 9/16" or 15/16" suspended grid style.
- 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:
 - 1 inch Thick Tile:

125 Hz:	0.11
250 Hz:	0.28
500 Hz:	0.68
1000 Hz:	0.90
2000 Hz:	0.93
4000 Hz:	0.96
NRC:	0.70, minimum
 - 2 inch Thick Tile:

125 Hz:	0.17
250 Hz:	0.86
500 Hz:	1.14
1000 Hz:	1.07
2000 Hz:	1.02
4000 Hz:	0.98
NRC:	1.00, minimum
 - 2. Fire: Provide panels when tested in accordance with ASTM E84 demonstrate: Flame Spread = 10, Smoke Developed=10.
- C. Tile Construction:
 - 1. All materials to be electro galvanized / galvanealed steel.
 - 2. Tile 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. Edge Style: Specify square lay-in or Tegular edge style.
- D. Acoustical Insulation: Fill shall be [1 inch (25.4 mm)] or [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: Baked polyester powder coat.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 INSTALLATION

- A. Install tiles into suspended ceiling grid in locations and in patterns as indicated on the drawings.
- B. Install each tile in accordance with manufacturer's instructions using approved anchors and fasteners.

3.03 CLEANING

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

END OF SECTION