

SECTION 09840

FLAT FACED METAL ACOUSTICAL CEILING CLOUDS

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 FLAT FACED ACOUSTICAL CEILING CLOUDS

- A. Acoustic Clouds: Sound Seal LUCIDITY Metal Absorptive Ceiling Clouds

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

- B. Cloud Panel Performance:

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

Cloud 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:	1.18, minimum

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

- C. Cloud Panel Construction:

- 1. All materials to be A60 galvanealed steel.

2. Cloud 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. V-Groove ridges shall be formed on 6 inch (152 mm) centers x 0.625 inches (16 mm) deep.

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. Mounting: Manufacturer's standard minimum 11 gauge (3.12 mm) brackets, four per cloud panel.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 INSTALLATION

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

3.03 CLEANING

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

END OF SECTION