

SECTION 09840

ALPHAPERF® FLAT FACED METAL ACOUSTICAL CEILING CLOUDS

PART 1 GENERAL

1.1 SECTION INCLUDES

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

1.2 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.

1.3 SYSTEM DESCRIPTION

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

1.4 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.

1.5 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.

1.6 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: Acoustical Solutions 2420 Grenoble Road Richmond, VA 23294
Phone: (804) 346-8350 Email: info@acousticalsolutions.com
Web: <https://acousticalsolutions.com>
- B. Substitutions: No substitutions permitted.

2.02 FLAT FACED ACOUSTICAL CEILING CLOUDS

- A. Acoustic Clouds: Alphaperf® 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 |

- 1. 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 electro galvanized / 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 acrylic enamel or baked polyester powder coat.
- F. Mounting: Manufacturer's standard minimum 11 gauge (3.12 mm) brackets, four per cloud panel.

PART 3 EXECUTION

3.1 EXAMINATION

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

3.2 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.

3.3 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