

**Architect's and Engineer's Specifications for  
Auralex® Acoustics, Inc.  
Banners and Baffles**

**Section 098436**

**Acoustical Treatment - Sound-Absorbing Ceiling Units**

**1. General**

**1.1. Section Includes**

- a) Broadband sound absorptive units.

**1.2. Related Sections**

- a) Section 095xx – Suspended Acoustical Ceilings: Conventional grid-supported acoustic ceilings.

**1.3. Performance requirements**

- a) Fire: Provide panels that demonstrate "Class A" performance when tested in accordance with ASTM E-84:
1. Flame Spread = 20 (maximum)
  2. Smoke Density = 50 (maximum)
- b) Sound Absorption: Provide panels that are certified to meet the following minimum sound absorption characteristics when tested in accordance with ASTM C423 using E-400 testing method:

Banner	Octave Band Center Frequency (Hz)						NRC
	125	250	500	1000	2000	4000	
2" thick	1.09	0.97	0.92	1.05	1.00	1.11	1.00
4" thick	1.31	1.11	1.14	1.17	1.15	1.19	1.15

Baffles	Octave Band Center Frequency (Hz)						Sabins/ sq ft
	125	250	500	1000	2000	4000	
Fabric Baffles	0.00	0.55	1.73	2.76	2.91	2.86	2.00
PVC Baffles	0.40	0.74	1.42	1.73	1.60	1.14	1.37

**1.4. Submittals**

- a) Submit in accordance with provisions of Section 01300.
- b) Product Data: Submit manufacturer's recommended installation instructions and documentation certifying conformance with specified performance requirements.
- c) Shop Drawings: Submit drawings indicating layout for all areas to receive work of this section, including locations of light fixtures, ceiling diffusers and grilles. Indicate pattern of panels, details and coordination requirements for work of other sections.
- d) Samples: Submit for approval two (2) samples of sound absorptive units, not less than two (2) feet by four (4) feet in size and demonstrating thickness, color, edge style and texture.

**1.5. Quality Assurance**

- a) Installer Qualifications: Installers shall have demonstrated experience in installation of products similar to those specified in this section. Documentation of at least five (5) years previous installations of similar materials shall be provided.

**1.6. Delivery, Storage and Handling**

- a) Deliver materials in manufacturer's original unopened and undamaged packages with labels legible and intact.
- b) Store materials in unopened packages in a manner that will avoid damage from the environment and from construction operations.

**1.7. References**

- a) ASTM C423 – Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
- b) ASTM E-84 – Standard Test Method for Surface Burning Characteristics of Building Materials.

**1.8. Environmental Requirements**

- a) Do not begin installation of acoustical panels until building has been enclosed and environmental conditions approximate interior conditions that will prevail when building is occupied.

**2. Products****2.1. Manufacturers**

- a) Provide Banners and/or Baffles as manufactured by Auralex Acoustics, Inc., 6853 Hillside Court, Indianapolis, Indiana 46250-2039. Tel. (317) 842-2600. Fax: (317) 842-2760.
- b) Substitutions are not acceptable.

**2.2. Acoustical Units**

- a) BN2 Banner. Core of single fiberglass with density of 0.75 to 1.5 pcf [12 to 24 kg/m<sup>3</sup>], and seamless finish material wrapped and bonded to back side of unit.
  - 1. Wideness: any up to 4 feet [1.22 m].
  - 2. Length: any up to 50 feet [15.24 m].
  - 3. Thickness: 2 inches [50.8 mm].
  - 4. Edges: Natural.
  - 5. Corners: Square.
  - 6. Finish material: Fabric, Nylon, or PVC.
  - 7. Finish color: Blue, Beige, Black, Green, Gray, Plum, Red, Teal, White Yellow, Navy Blue, Burgundy, Tan, and Purple.
  - 8. Mounting: Washers.
- b) BN4 Banner. Core of single fiberglass with density of 0.75 to 1.5 pcf [12 to 24 kg/m<sup>3</sup>], and seamless finish material wrapped and bonded to back side of unit.
  - 1. Wideness: any up to 4 feet [1.22 m].
  - 2. Length: any up to 50 feet [15.24 m].
  - 3. Thickness: 4 inches [101.6 mm].
  - 4. Edges: Natural.
  - 5. Corners: Square.
  - 6. Finish material: Fabric, Nylon, or PVC.
  - 7. Finish color: Blue, Beige, Black, Green, Gray, Plum, Red, Teal, White Yellow, Navy Blue, Burgundy, Tan, and Purple.
  - 8. Mounting: Washers.
- c) BNF Baffles. Core of single fiberglass with density of 0.75 to 7 pcf [12 to 112 kg/m<sup>3</sup>], chemically hardened edges, and seamless finish material wrapped and bonded to back side of unit.
  - 1. Wideness: 2 to 4 feet [0.61 to 1.22 m].
  - 2. Length: 4 to 10 feet [1.22 to 3.05 m].
  - 3. Thickness: 1 to 4 inches [25.4 to 101.6 mm].
  - 4. Edges: Hardened and beveled, radius, square, or mitered.
  - 5. Corners: Square or radiused.
  - 6. Finish material: Fabric.
  - 7. Mounting: Grommets.
- d) BNC Baffles. Core of single fiberglass with density of 0.75 to 7 pcf [12 to 112 kg/m<sup>3</sup>], and seamless finish material wrapped and bonded to back side of unit.
  - 1. Wideness: 2 to 4 feet [0.61 to 1.22 m].
  - 2. Length: 4 to 10 feet [1.22 to 3.05 m].
  - 3. Thickness: 1 to 4 inches [25.4 to 101.6 mm].
  - 4. Edges: Non hardened, square.
  - 5. Corners: Square.
  - 6. Finish material: Nylon or PVC.
  - 7. Finish color: Blue, Beige, Black, Green, Gray, Plum, Red, Teal, White Yellow, Navy Blue, Burgundy, Tan, and Purple.
  - 8. Mounting: Grommets.

**2.3. Mounting Components**

- a) Grommets or washers: Provide hardware for permanent mounting to ceilings.
- b) Other: Provide materials necessary for alternate permanent mounting to ceilings as described in acoustical treatment design documentation.

**3. Execution**

**3.1. Examination**

- a) Examine surfaces to receive work of this section. Do not begin installation until unsatisfactory conditions have been corrected.

**3.2. Installation**

- a) Install units on ceilings in locations and in patterns indicated on the drawings.
- b) Install each unit as indicated on shop drawings and in accordance with manufacturer's printed instructions, using approved mounting methods.

**3.3. Adjust and Clean**

- a) After installation of acoustical units, clean all dirty surfaces, using cleaning materials and methods acceptable to manufacturer.
- b) Replace damaged components as directed by the Architect.
- c) Remove debris caused by work of this section on a daily basis. At completion of acoustical panel installation, remove all crates, cartons, packages and debris from the project site.

End of Section