

SECTION 09800

ACOUSTICAL TREATMENT

PART GENERAL

SECTION INCLUDES

Sound absorptive ceiling panels.

Sound absorptive wall panels.

Miscellaneous accessories and trim.

RELATED SECTIONS

Section 09511 - Suspended Acoustical Ceilings:
Conventional grid-supported acoustic ceilings.

Section 15840 - Air Terminal Units.

Section 16510 - Interior Luminaires.

REFERENCES

ASTM C 423 - Standard Test Method for Sound Absorption
and Sound Absorption Coefficients by the Reverberation
Room Method.

ASTM E 84 - Standard Test Method for Surface Burning
Characteristics of Building Materials.

SUBMITTALS

Submit in accordance with provisions of Section 01300.

Product Data: Submit manufacturer's recommended
installation instructions and documentation certifying
conformance with specified performance requirements.

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 units, cut units, details,
and coordination requirements for work of other sections.

Samples: Submit for approval two samples of sound

absorptive panel and suspension systems, not less than 12 inches by 18 inches in size and demonstrating colors, textures, and finishes that will be provided in the finished work.

QUALITY ASSURANCE

Installer Qualifications: Installers shall have demonstrated experience in assembly and installation of products similar to those specified in this section.

DELIVERY, STORAGE, AND HANDLING

Deliver materials in manufacturer's original unopened and undamaged packages with labels legible and intact.

Store materials in unopened packages in a manner that will avoid damage from the environment and from construction operations.

Handle in accordance with manufacturer's instructions.

ENVIRONMENTAL REQUIREMENTS

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

PART PRODUCTS

MANUFACTURERS

Provide products as manufactured by Eckel Industries, Inc.; 155 Fawcett Street; Cambridge, MA 02138-1111. ASD. Tel: (617) 491-3221. Fax: (617) 547-2171.

Substitutions are not acceptable.

ACOUSTIC PANELS

Panels - Performance:

Sound Absorption: Provide panels that are certified to meet the following minimum sound absorption for a 30 inch by 120 inch panel when tested in accordance with ASTM C 423:

125 Hz: 6.2 sabins.

250 Hz: 20.5 sabins.
500 Hz: 35.2 sabins.
1000 Hz: 34.5 sabins.
2000 Hz: 31.5 sabins.
4000 Hz: 33.1 sabins.
NRC: 0.99, minimum.

Fire: Provide panels that demonstrate the following performance when tested in accordance with ASTM E 84:
Flame spread: 10 maximum.
Smoke density: 5 maximum.

Provide Eckoustic Functional Panels with total area not less than 50 percent of gross ceiling area.

Panel Dimensions: 30 inches wide by 5 foot, 6 foot, 8 foot, and 10 foot lengths as indicated on the drawings.

Panel Facings: 22 gage electrogalvanized steel sheet, perforated with 3/32 inch holes on 5/32 inch staggered centers; vee-ridged on 6-inch centers to a depth of 3/4 inch.

Panel Facings: 0.032 inch thick aluminum sheet, perforated with 3/32 inch holes on 5/32 inch staggered centers; vee-ridged on 6-inch centers to a depth of 3/4 inch.

Framing: 0.040 inch thick channel shaped steel or aluminum transverse framing members. For units 30 inches wide to 72 inches in length, provide two stiffening channels; for units 96 inches in length, provide three channels.

Fill: 2 inch thick, fine fibered fibrous glass having a density of not less than 1.5 pounds per cubic foot, wrapped in a 1.5 mil flame guard polyethylene.

Finish: White urethane enamel.

Finish: Natural aluminum finish.

Finish: Painted by manufacturer to match Architect's color sample.

Color: _____.

MOUNTING COMPONENTS

Brackets: Provide four 10 gage steel brackets per unit for attachment to walls and ceilings, providing 4 inches of clearance between back of panel and mounting surface.

Brackets: Provide four 10 gage 316 stainless steel brackets per unit for attachment to walls and ceilings, providing 4 inches of clearance between back of panel and mounting surface.

Anchors and Fasteners: Provide aluminum fasteners for securing facing to framing members and for securing framing members to brackets; provide corrosion-resistant anchors for fastening to substrate, as recommended by panel manufacturer and approved by Architect.

PART EXECUTION

EXAMINATION

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

INSTALLATION

Install panels on walls and ceilings in locations and in patterns indicated on the drawings.

Install each unit as indicated on shop drawings and in accordance with manufacturer's printed instructions, using approved anchors and fasteners.

ADJUST AND CLEAN

After installation of acoustic panels, clean all dirty or discolored surfaces, using cleaning materials and methods acceptable to manufacturer. Replace damaged components as directed by the Architect.

Remove debris caused by work of this section on a daily basis. At completion of acoustic panel installation, remove all crates, cartons, packages, and debris from the project site.

END OF SECTION