

SECTION 09830

LOW FREQUENCY SOUND ABSORBER (MODEX™ PLATE)

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Low Frequency Sound Absorber (Model Modex™ Plate)

1.02 RELATED SECTIONS

- A. Section 06400 – Architectural Woodwork

1.03 DEFINITIONS

- A. The Modex™ Plate shall offer absorption from 30 to 500 Hz, utilizing a damped plate resonator with added porous absorption. The assembly shall be within a wood constructed cabinet and finished with a fabric covering..

1.04 SYSTEM DESCRIPTION

- A. Design Requirements: Surface or corner applied porous materials lose efficiency at low frequencies, because the particle velocity or air movement associated with these long wavelengths is low. The Modex™ Plate is pressure activated and is most effective in high pressure dihedral or trihedral surface locations. The system shall offer low and mid frequency absorption via a mass-spring mechanism.

- B. Performance Requirements:

- 1. Random Incidence Sound Absorption Coefficients ( $\alpha$ ): Tested by independent, accredited, NVLAP facility according to ISO 354 for a type A mounting of the unit:

Hz	32.5	63	125	250	500	1000	2000	4000
$\alpha$	0.61	0.98	1.06	0.89	0.61	0.33	0.25	0.20

1.05 SUBMITTALS

- A. Product Data: Submit standard manufacturer product cutsheet showing product, standard dimensions and selected options.
- B. Design Data / Test Reports: Submit sound absorption coefficients.

1.06 QUALITY ASSURANCE

- A. Flame Spread / Smoke Developed Characteristics: Tested by independent, accredited NVLAP facility according to DIN 4102 B1.

1.07 DELIVERY STORAGE AND HANDLING

- A. Packing, Shipping, Handling and Unloading: Modex Plates are susceptible to damage and shall be removed from packaging and handled with care. Units shall be carried by a minimum of 2 people. Units shall never be set down on finished fabric faces, only on backside.
- B. Storage and Protection: Store Modex Plates in original packaging until ready to install. Store Modex Plates in temperature and humidity controlled conditions for 24 hours prior to installation and protect from moisture and infestation.
- C. Acceptance at Site: Installation constitutes complete acceptance.

## 1.08 PROJECT CONDITIONS

- A. Project Environmental Requirements: Installation area shall be enclosed, protected from weather and be temperature and humidity controlled prior to unpacking and installing Modex Plates.

## PART 2 PRODUCTS

### 2.01 DISTRIBUTOR

- A. RPG Acoustical Systems, LLC, 99 South St, Passaic, NJ 07055 (telephone) 973-916-1166, <http://www.rpgacoustic.com>.

### 2.02 MATERIALS

- A. Unit Dimensions  
Standard Units: Height (49-1/4") x (33-1/4") x (6")
- B. Weight  
Standard Units: 22 kg (50 lbs)
- C. Fabric: Open weave, Class A, polyester, without backing layer such as pattern FR701-2100 by Guilford of Maine (Grand Rapids, MI). Color per architect selection.

### 2.03 ACCESSORIES

- A. Wall Cleats: Units shall be supplied with (2) plywood mounting cleats running the inside width of the perimeter frame.
- B. Mounting Screws: Mounting screws for the plywood mounting cleats and screws to secure the Modex Plate frame to the mounting cleats shall be supplied.

## PART 3 EXECUTION

### 3.01 INSTALLERS

- A. Only qualified installers with 3 years (minimum) experience installing similar products shall install diffusors.

### 3.02 EXAMINATION

- A. Site Verification of Conditions: Commencement of installation constitutes acceptance of prior work.

### 3.03 PREPARATION

- A. Protection: Protect surrounding work so as to avoid damage during installation of diffusors.
- B. Surface Preparation: Inspect substrate and ensure surface is flat, plumb, clean and dry without protruding elements that would otherwise interfere with installation.

### 3.04 INSTALLATION

- A. Field measure the inside height dimension of the unit and mark the wall to determine the location of the top and bottom mounting cleats.
- B. Attach the mounting cleats to the wall with the vertical section of the cleat below the horizontal leg, so that the unit can slide over and conceal the cleats.
- C. There shall be three rubber grommets, in existing holes, on the top and the bottom of the unit. One in the center and two, six holes from either end.
- D. Slide the Modex Plate over the cleats and screw, using the included self tapping screws, through supplied rubber grommets into the mounting brackets to secure the unit at the top and bottom.

### 3.05 CLEANING AND PROTECTION

- A. After installation, protect panels against dirt, water and contact that would puncture, snag, tear or otherwise damage panel fabric.

END OF SECTION