



**soundconcepts**  
Making your ideas resonate

## **IBD INTERACT BARREL DIFFUSERS SPECIFICATION**

**NOTICE:** Consult your local Sound Concepts representative or contact Sound Concepts at 204.783.6297 before specifying any optional or custom element as shape, material, size, and finish limitations can affect feasibility. The options provided in parentheses are not always compatible

**LIMITATION:** The IBD INTERACT BARREL DIFFUSERS are not intended for use in swimming pools, kitchens, food processing, food preparation and cleanroom applications due to potential harsh environments and aggressive sanitation requirements. We recommend an independent evaluation before specifying the IBD INTERACT BARREL DIFFUSERS in these areas

### **SECTION 09 84 40**

#### **SOUND DIFFUSERS**

##### **PART 1 GENERAL**

###### **1.01 RELATED DOCUMENTS**

- A. Drawings and general conditions of contract, including general and supplementary conditions and division 1 specification sections, apply to work of this section

###### **1.02 SUMMARY**

- A. Section include
  - a. Sound diffusers
  - b. Mounting system
  - c. Hangers, fasteners and moldings
- B. Related sections
  - a. Section 09 20 00 (09250) – Plaster and Gypsum Board
  - b. Division 26 (16) – Electrical
- C. Alternates
  - a. Prior Approval: Unless otherwise provided for in the contract documents, proposed product substitutes may be submitted no later than 10 working days prior to the date established for receipt of bids. Approval of a proposed substitution is contingent upon the Architect's review of the

proposal for acceptability and approved products will be set forth by addenda

- i. If substitute products that have not been approved by Addenda are included in a bid, the specified products shall be provided without additional compensation
- b. Submittals: That do not provide adequate information for the product evaluation will not be considered. The proposed substitution must meet all requirements of this section, including but not limited to: Single source materials supplier (if specified in section 1.05); panel design, size, composition, color and finish; suspension system component profiles and sizes; compliance with the referenced standards

### **1.03 REFERENCES**

- A. ASTM E 84 “Standard Test Method for Surface Burning Characteristics of Building Materials”
- B. ASTM A 366 “Standard Specification for Steel, Carbon Cold-Rolled Sheet, Commercial Quality”
- C. ASTM C 423 “Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method”
- D. ASTM A 653 “Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process”
- E. ASTM E 1477 “Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by use of Integrating-Sphere Reflectometers”

### **1.04 SUBMITTALS**

- A. Product Data: Manufacturer’s product data and installation instructions
- B. Shop Drawings: Submit shop drawings showing how panels are to be laid out on the walls. Show the following details:
  - a. Panel widths, fabric seams and joint locations
  - b. System assembly details and connections to building components
  - c. List of materials, dimensions, mounting hardware and any special details
- C. Samples: Minimum 6 inch (150 mm) piece of each type and finish with acoustical material and mounting system
- D. Certification: Manufacture’s certifications that products comply with specified requirements, including laboratory reports showing compliance with specified tests and standards

## **1.05 QUALITY ASSURANCE**

- A. Manufacturer and Installer Qualifications: Provide Acoustical Wall Panel components produced by a single manufacturer with resources adequate to deliver a product of consistent quality in terms of appearance and physical properties for all project scopes and scales without risk of delay or interruption; Installation work to be performed by a firm whose personnel have no less than five (5) years of successful experience on projects of similar size, requirements and complexity

## **1.06 DELIVERY, STORAGE AND HANDLING**

- A. Deliver materials in manufacturer's unopened packages, suitably store to protect against exposure to moisture, sunlight, surface contamination and other unacceptable conditions
- B. Handle components to prevent damage
- C. Attic Stock
  - a. Panels and exposed trims 2%
  - b. Mounting and suspension components 0.5%

## **1.07 PROJECT CONDITIONS**

- A. Environmental requirements at installation
  - a. The building shall be enclosed, the air condition system shall be operating with proper filters in place and the proper temperature and humidity conditions shall be stabilized before, during and following installation until Substantial Completion. Building areas to receive ceilings shall be free of construction dust and debris
  - b. Coordination: Coordinate acoustical ceilings work with installers of related work including but not limited to building insulation, drywall, mechanical and electrical systems
- B. Dimensional Stability: Acoustical Wall Panel installation shall be carried out in temperature conditions up to 100°F (48°C), in spaces before the building is enclosed and HVAC is cycled or not operating

## **1.08 WARRANTY (LIMITED)**

- A. Acoustical Wall Panels: Submit a written warranty executed by the manufacture agreeing to repair or replacement of acoustical wall panels that fail within the warranty period. Failures include but are not limited to:
  - a. Acoustical Wall Panels: Sagging, warping, rusting and manufacturer's defects
  - b. Acoustical Wall Panel mounting: Rusting and manufacturer's defects

- B. Warranty period for Acoustical Wall Panels is 1 years from date of Substantial Completion

## **1.09 MAINTENANCE**

- A. Provide extra acoustical wall panels and mounting material, matching installed material in manufacturer's original packages and clearly labeled as attic stock as specified in DELIVERY, STORAGE AND HANDLING section
- B. Deliver extra stock and access tools to owner's representative

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURE**

- A. Sound Concepts, 204.783.6297, [customerservice@soundconceptscan.com](mailto:customerservice@soundconceptscan.com)

### **2.02 MATERIALS**

- A. Mounting: Type 1
- B. Product: IBD INTERACT BARREL DIFFUSERS – Mounting
  - a. Ceilings: 15/16" heavy duty t grid, main tees, cross tees and perimeter trim
  - b. Walls: z clip
- C. Finish: The exposed flanges of molding and fixture trim shall be finished to match the panels

### **2.03 MATERIALS**

- A. IBD INTERACT BARREL DIFFUSERS Panels: Type AWP - 1
- B. IBD INTERACT BARREL DIFFUSERS – GFRG glass fiber reinforced gypsum
  - a. Accessories
    - i. Cutouts for lights, sprinklers and speakers shall be (factory)(field) fabricated
    - ii. Perimeter trim shall be as indicated on the drawings
  - b. Performance Characteristics:
    - i. Sound Control:
      - 1. Wall mount NRC (painted = 0.10)(fabric = 0.20)
      - 2. Ceiling mount NRC painted = 0.12
    - ii. Flame Spread
      - 1. Less than 25 per ASTM E 84
      - 2. Class A per ASTM E 1264

- iii. Smoke Developed: Less than 450 per ASTM E 84
- c. Surface Texture, Substrate, Size and Edge
  - i. Finish: (lemon peel textured acrylic)(Guilford of Maine FR 701\_\_\_)
  - ii. Color: per finish schedule
  - iii. Size: (24" x 24")(24" x 36")(24" x 48")(36" x 36")(36" x 48")( 36" x 60")(36" x 72")(48" x 48")(48" x 60")( 48" x 96")(custom \_\_\_ x \_\_\_)
  - iv. Configuration: (flat)(inclined)
  - v. Edge: reveled
  - vi. Corners: square
  - vii. Shape: rectangular barrel vault

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Examine construction and conditions under which systems will be installed. Do not proceed with installation until unsatisfactory conditions have been corrected

### **3.02 INSTALLATION**

- A. Install Sound Diffusers in locations indicated with surfaces and edges plumb and in alignment with other panels. Comply with manufacture's printed instructions using the mounting accessories indicated
- B. Cut units are not allowed
- C. Construction Tolerances: Plumb and level  $\pm 1/16"$
- D. Installed panels should be free from damage or defects
- E. Remove and replace panels that are damaged and unacceptable to the architect

### **3.03 ADJUSTING AND CLEANING**

- A. Clean Sound Diffusers including trims and moldings and pursuant to manufacturer's recommendations. Remove and replace damaged components that cannot be restored

**End of Section 09 84 40**