

# **Ceiling Tiles**

## **C100-B - Specification**

### **SECTION 09510 – ACOUSTICAL CEILING TILES**

#### **PART 1 – GENERAL**

##### **1.00 GENERAL**

- A. Sound Quality Acoustical Ceiling Tiles by Sound Seal, 50 H.P. Almgren Drive, Agawam, MA 01001; Phone (800) 569-1294 (413) 789-1770; Fax (413) 789-4444

##### **1.01 SCOPE**

- A. Sound Seal shall furnish all Sound Quality acoustical ceiling tiles assemblies necessary to complete installation by contractor in accordance with plans and specification.

##### **1.02 RELATED WORK BY OTHERS**

- A. Substrate ceiling systems and structure and miscellaneous attachment devices other than those specified herein, are not included.

##### **1.03 QUALITY ASSURANCE**

- A. Installer Qualification: The installer shall be a firm with a minimum of two (2) years of successful experience in installation of products with similar requirements.
- B. Fire Performance Characteristics: Sound Quality ceiling tiles should be constructed using fire retardant components meeting or exceeding the requirements of the ASTM E-84 Class A
  - 1. Flame Spread: 25 or less
  - 2. Smoke Developed: 450 or less
- C. Noise Reduction Coefficient: The C-100B Ceiling Tile will have a minimum NRC value of .85, STC rating 26, when tested in accordance with ASTM C-423 and ASTM E-90.

##### **1.04 PROJECT CONDITIONS**

Installation shall be done only when the temperature and humidity closely approximate the interior conditions that will exist when the building is occupied. The heating and cooling systems shall be operating before, during, and after installation, with the humidity of the interior spaces maintained between min. 35% - max. 55%.

Prior to installation panels shall be allowed to stabilize on site 72 hours prior to installation, the site must be free of wet and dusty trades and the climate conditions stabilize to normal operational levels.

#### **1.05 SUBMITTALS**

- A. Submit shop drawings prepared by the manufacturer showing all necessary details and dimension requirements, which will subsequently be field verified and revised as required by the Architect.
- B. Samples: Submit (3sets) 8' X 11' sample panels of each type of product and finish as specified. Product shall be original production in finish specified for final use.
- C. Certification: Submit to the owner a certificate of compliance to specified acoustical and fire performance criteria signed by an officer of the panel manufacturer and attach independent laboratory test results for each product used, showing that the products supplied as components meet or exceed the specified requirements.
- D. Single Source: All custom acoustical wall and ceiling panels shall be purchased from a single manufacturer.

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

- A. Panel assemblies shall be delivered to the project site in original, unopened packages.
- B. Prior to panel installation the site must be free of all wet and dusty trades and the climatic conditions stabilized to normal operational levels.
- C. The panels shall be stored in a fully enclosed space. For a minimum of seventy-two (72) hours immediately prior to installation, store the panels in the room in which they will be installed. The temperature and humidity of the room shall closely approximate those conditions that will exist when the building is occupied. Store the panels off the floor.
- D. Care in handling MUST be exercised to avoid damage.

#### **1.07 WARRANTIES**

- A. Manufacturer: All materials supplied by the manufacturer shall be guaranteed against manufacturing defects for one year.
- B. Contractor: All work shall be guaranteed for one year from final acceptance of completed work.

## **PART 2 – PRODUCTS**

### **2.01 SOUND QUALITY CEILING PANELS**

- A. Furnish and deliver prefabricated C-100B ceiling tiles as described in this section for installation in areas as shown on drawings meeting or exceeding the following requirements:

Description: Sound Quality C-100B ceiling tiles, as manufactured by:

Sound Seal	Tel: (800) 569-1294
P.O Box 545	Tel: (413) 789-1770
50 H.P Almgren Dr.	Fax: (413) 789-4444
Agawam, MA 01001	E-mail: dgilbert@soundseal.com

### **2.02 PANELS**

- A. Substrate of 1 thick 6 PCF fiberglass
- B. 2 mil white pebble grain facing
- C. Edge Detail: Square, natural
- D. Acoustics
- a) Minimum .85 NRC
- b) Minimum STC rating: 26 (single pass)

### **2.03 PANEL FINISHES**

- A. 2 mil thick white pebble grain facing adhered with 100% coverage of adhesive to face of substrate.

### **2.04 SUPPORT SYSTEMS**

- A. (24 x 24 , 24 x 48 , 12 x 72 ) Sound Quality C-100B ceiling tiles shall be installed by means of drop-in mounting on intermediate duty (9/16 or 15/16 ) T-grid.

## 2.05 ACOUSTICAL PERFORMANCE

### A. Sound Absorption

Sound Absorption: Per ASTM C 423  
Sound Absorption Coefficient per Octave Band Center Frequency (Hz)

125	250	500	1000	2000	4000	NRC
.14	.27	.80	1.11	1.14	1.14	.85

### B. Sound Transmission

Sound Transmission Class: Per ASTM E-90  
Sound Transmission Class per Octave Band Center Frequency (Hz)

125	250	500	1000	2000	4000	STC
13	17	22	26	32	37	26

## PART 3 – EXECUTION

### 3.01 PREPARTION

- A. Layout: If required, prior to manufacture, field dimensions shall be taken to determine panel sizes. The contractor shall measure applicable areas prior to installation to confirm application and location of panel supports, in accordance with installation instructions.
- B. Coordination: The contractor shall coordinate with other trades the location of devices which will penetrate the panels or interfere with the installation. Recessed or surface devices located within the panels are to be located and out in the field.

### 3.02 INSTALLATION

- A. General: Install materials in accordance with manufacturer s'printed instructions and approved shop drawings. The installation shall comply with applicable regulations and industry standards.
- B. Provide shimming and adjustments as required to maintain consistent alignment of joints and of finished panel faces.

### 3.03 ADJUSTMENT, CLEANING, AND REPAIR

- A. The contractor shall make final adjustments to level or contours.
- B. Upon completion of installation, all Sound Quality ceiling tiles shall be cleaned free of dirt, dust, grease, oils, and fingerprints.
- C. All work, which cannot be successfully cleaned or repaired, shall be removed and replaced.

### **3.04 INSPECTION**

- A. Upon completion of installation, the owner's representative shall inspect all finished surfaces to ensure that work has been performed in a manner satisfactory to the owner. Any deficiencies in the installed panels shall be corrected by the contractor at no additional cost to the owner, or to the manufacturer.