

## **Exterior Grade Sound Curtains - Permanent/Long-Term ABBC-13EXT (1" Thickness)**

### Part 1-GENERAL

#### 1.1 Summary

- A. This section includes the following:
  - 1. Exterior Grade noise control curtains (sound curtains) for permanent or long-term projects

#### 1.2 Related Sections

#### 1.3 References

#### 1.4 Submittals

- A. Shop drawings: show fabrication and installation details for acoustical panels, including grommet location.
- B. Samples: Furnish 18" x 21" samples for quality and general panel construction.
- C. Technical data sheets reflecting construction, panel thickness, weight, and Acoustical data.

#### 1.5 Delivery, storage, and handling

- A. Deliver in unopened skids and store in a dry place with adequate air circulation. Store materials such that they will be free from accidental damage.

### Part 2-PRODUCTS

#### 2.1 Sound Curtains, General

- A. Sound Curtains shall consist of a nominal 1" thick quilted fiberglass sound absorber bonded to a 1 lb psf reinforced loaded vinyl noise barrier
  - 1. Products
    - i. Model # ABBC13-EXT (1" Thick)  
Acoustical Solutions  
2420 Grenoble Road  
Richmond, VA 23294  
PH: 800-782-5742  
AcousticalSolutions.com
  - 2. Noise Barrier: Flexible reinforced mass loaded vinyl barrier material:
    - i. Shall weigh a minimum of one pound per square foot
    - ii. Shall have a tensile strength of 1470 lb/in<sup>2</sup> per ASTM D 638
    - iii. Shall have a hardness of 85 ± 3, shore "A" per ASTM D2240

3. Sound Absorber: Exterior grade facing material:
  - i. Shall be a heavy duty 8 oz/sq. yd. PVC polyester fabric facing
  - ii. Shall be mechanically attached to the fiberglass by a quilting process
4. Quilted fiberglass:
  - i. Shall be nominal 1" thick
  - ii. Shall have a nominal density of 2.0-lb/cu. ft.
5. Noise Reduction Coefficient of .65
6. Sound Transmission class: 29
7. Standard Width: 54 inches
8. Length: As indicated, up to 25 feet long.

### 2.2 Construction

- A. Sound curtain panels or rolls shall be supplied in sizes indicated. Manufacturers standard panel construction shall have all edges bound, #4 spur grommets across the top & bottom, and exterior grade mating hook and loop fastener on both vertical edges.
- B. The sound absorption layer shall have all edges bound and be sewn to the barrier with a Tenara exterior grade thread.

### 2.3 Mounting

- A. Manufacturers standard accessories for securely mounting the sound curtain panels:
  1. Grommets may be installed at the top and bottom of each panel to facilitate mounting.
    - i. On panels over 10' long an additional row of double grommets may be installed across the middle of the panel
  2. Mechanical fastener to be installed through the grommets in the panel(s) into the support structure or wall.
    - i. Place a large fender washer with a center hole ID smaller than that of the mechanical fastener head, on top of the grommet you are securing through.
  3. Or Battens can be used
    - i. Place a batten system along the top and bottom of the panels
    - ii. Using a mechanical fastener that is appropriate for the substrate secure directly through the batten and acoustical composite into the support structure or wall
    - iii. Place a vertical batten on any columns or vertical supports and secure battens into place around the entire perimeter of the structural support or wall using the method above.
    - iv. If necessary, you may use a mechanical fastener to temporarily hold the panels in place while installing the battens
  4. Install the panels so that adjacent panels overlap each other by approximately 2"

- i. Join panels by pressing hook and loop fasteners together
- 5. Continue in this manner until the entire sound curtain wall is erected or the entire wall surface is covered.

2.4 Acoustical Performance:

Sound Transmission Loss: Per ASTM E 90

Octave Band Center Frequency (Hz)

125	250	500	1000	2000	4000	STC
15	17	28	41	49	52	30

Sound Absorption: Per ASTM C423

Octave Band Center Frequency (Hz)

125	250	500	1000	2000	4000	NRC
.18	.68	.74	.72	.42	.29	.65

Part 3-EXECUTION

3.1 Installation

- A. Install sound curtain panels in locations indicated. Comply with manufacturer’s written instructions for installation by using type of mounting accessories indicated or, if not indicated, as recommended by the manufacturer.

3.2 Cleaning

- A. After completion of installation of panels or rolled goods, remove dust and other foreign material according to manufacturer’s written instructions.
- B. Remove surplus material, rubbish, and debris resulting from quilted fiberglass absorber installation, on completion of work, and leave areas of installation in a neat and clean condition.