

## **Sound Absorbers/Noise Barrier Composites ABBC-13 (2" Thickness)**

### Section – Sound Absorbers/Noise Barrier Composites

#### Part 1-GENERAL

##### 1.1 Summary

- A. This section includes the following:
  - 1. Sound Absorbers/Noise Barrier Composites

##### 1.2 Submittals

- A. Shop drawings: show fabrication and installation details for acoustical curtain panels, including grommet location.
- B. Submittals: Furnish 8 ½"X11" samples, showing a standard color and quilt pattern.
- C. Product Test Report: From a qualified testing agency indicating materials comply with requirements.
- D. Product certificates: signed by manufacturer certifying that the products furnished comply with requirements.

##### 1.3 Quality Assurance

- A. Manufacturer Qualification: Manufacturer shall have a minimum of 10 years' experience in production of specified products.
- B. Fire test Report: Provide flammability test report from a qualified testing agency indicating the Sound Absorber/Noise Barrier Composite has the following surface-burning characteristics as per ASTM E-84.
  - Flame spread index: less than 23.5
  - Smoke Density index: less than 30.5
- C. Acoustical Test Report: provide acoustical test report from a qualified testing agency indicating quilted fiberglass absorber component has a NRC value of at least 0.85 per ASTM C423.
- D. Acoustical test report: provide acoustical test report from a qualified testing agency indicating the Sound Absorber/Noise Barrier Composite has a STC value of at least 32 per ASTM E-90 & E-413.

##### 1.4 Delivery, storage, and handling

- A. Protect Quilted Fiberglass composites from excessive moisture when shipping, storing, and handling. Deliver in unopened skids and store in a dry place with adequate air circulation. Do not deliver material until all wet-work has been completed.

Part 2-PRODUCTS

2.1 Quilted Fiberglass Absorbers / Noise barrier composites, General

A. Sound Absorbers/Noise barrier Composites shall consist of a layer of a nominal 2" thick quilted fiberglass and a 1 lb psf reinforced mass loaded vinyl noise barrier. Both layers shall be bonded together

1. Products

a. Model # ABBC-13 (2" Thick)

Acoustical Solutions  
2420 Grenoble Road  
Richmond, VA 23294  
PH: 800-782-5742  
AcousticalSolutions.com

- 2. Facing material on quilted fiberglass; vinyl-coated-fiberglass cloth facing (gray, tan, black or off-white).
- 3. Composite thickness: nominal 2" thick
- 4. Total weight: Approx.1.4 lbs. Per sq. ft.
- 5. Standard Width: 54 inches
- 6. Length: As indicated, up to 25 feet long

2.2 Construction

A. The Quilted Fiberglass Absorbers / Noise barriers composite shall be supplied in 54" wide panels or rolls with lengths indicated. Manufacturer's standard panel construction shall have all edges bound with #4 spur grommets across the top, and mating hook and loop seals sewn along the vertical edges.

- 1. Note: 2" velcro sealed overlap between adjacent panels. The net result when multiple panels are used is that each panel covers 52" in width.

2.3 Mounting

A. Manufacturers standard accessories for securely mounting the quilted fiberglass absorber panels, of type and size indicated and complying with the following requirements:

- 1. Grommets shall be installed to facilitate mounting on either the short or long edge of the panel, as indicated on the drawing.
- 2. Mechanical fasteners by others

2.4 Acoustical Performance

Sound absorption: Per ASTM C423

| Octave Band Center Frequency (Hz) |     |     |      |      |      |     |  |
|-----------------------------------|-----|-----|------|------|------|-----|--|
| 125                               | 250 | 500 | 1000 | 2000 | 4000 | NRC |  |
| .07                               | .27 | .96 | 1.13 | 1.08 | .99  | .85 |  |

Sound Transmission Loss: Per ASTM E-90 & E-13

Octave Band Center Frequency (Hz)

| <u>125</u> | <u>250</u> | <u>500</u> | <u>1000</u> | <u>2000</u> | <u>4000</u> | <u>STC</u> |
|------------|------------|------------|-------------|-------------|-------------|------------|
| 13         | 20         | 29         | 40          | 50          | 55          | 32         |

### 2.5 Flammability Rating

- A. Material shall have a Class A flammability rating per ASTM E-84"

## Part 3-EXECUTION

### 3.1 Installation

A. Install quilted fiberglass absorber / Noise barrier composite in locations indicated. Comply with manufacturer's written instructions for installation of panels or rolled goods.

### 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 Absorbers / Noise barriers composite installation, on completion of work, and leave areas of installation in a neat and clean condition.