

SECTION 09 84 00 (09840) - ACOUSTICAL TREATMENT

This Section is based on ACOUSTICAL SOLUTIONS AlphaSorb® Flat Acoustic Foam.

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Acoustical Sheets sound-absorptive AlphaSorb® Flat Acoustic Foam Sheets.

B. Furnish and install all sound-absorptive wall products and associated installation accessories as shown on the drawings, and specified herein, or as required to complete the work.

C. Related Documents: This section applies to drawings and general provisions of the subcontract. Review these documents for coordination with additional requirements and information that apply to work under this Section. Cross-reference approved supplementary manufacturers' sound-absorptive Sheets and required installation accessories including, but not limited to construction-grade adhesive, or other mechanical fasteners by others as applicable.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM) International:

1. ASTM C423 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.

2. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.

3. ASTM E795 Standard Practices for Mounting Test Specimens During Sound Absorption Tests.

1.3 SYSTEM DESCRIPTION

A. Performance Requirements

1. Provide sound absorptive wall sheet system designed and tested to provide a Class A flame spread rating when tested in accordance with ASTM E84, unless otherwise specified.

a. Flamespread: 25 maximum.

b. Smoke Developed: 50 maximum.

2. Provide sound absorptive wall sheet which has been manufactured, fabricated and installed to provide Noise Reduction Coefficient (NRC) rating in accordance with ASTM C423-09a:

a. ACOUSTICAL SOLUTIONS Acoustical Sheets. NRC (Noise Reduction Coefficient): Comply with ASTM C423-90a up to 1.05 depending on thickness. See specific products for ratings.

1.4 SUBMITTALS

A. Product Data: Manufacturer's technical data for AlphaSorb® Flat Acoustic Foam Sheets including fire-resistive characteristics, finishes, details of installation, and the following:



2. Manufacturer's installation instructions.
3. Certified test reports indicating compliance with Performance Requirements specified herein.

- B. Samples: One (1) 12" inch by 12" inch (305mm x 305mm) sample of desired thickness of the following specified units for color selection or verification.
- C. Shop Drawings: Layout and details of AlphaSorb® Flat Acoustic Foam Sheets. Show locations of items which are to be coordinated with or supported by the structural ceiling or walls.
- D. Closeout Submittals:
1. Operating and Maintenance Manual, including cleaning and maintenance instructions.
 2. Extra Material for Owner's stock.
 3. Safety Data Sheets (SDS).

1.5 QUALITY ASSURANCE

- E. Single-Source Responsibility: ACOUSTICAL SOLUTIONS to provide AlphaSorb® Flat Acoustic Foam Sheets.
- F. Installer Qualifications: Acceptable to the manufacturer of the AlphaSorb® Flat Acoustic Foam Sheets being installed. Utilize an installer having demonstrated 5 years minimum experience on projects of similar size and acoustical complexity.
- G. Mock-Up: Provide a mock-up for evaluation of installed appearance.
1. Install AlphaSorb® Flat Acoustic Foam Sheets in areas designated by proper authority.
 2. Do not proceed with remaining work until proper authority approves workmanship and appearance.
 3. Approved mock-up may remain as part of the work.
- H. Surface Burning Characteristics
1. Tested in accordance to ASTM E84
 2. Fire Class A
 - a. Flame Spread Index <25
 - b. Smoke Developed Index <50

1.6 Delivery, Storage, and Handling

- I. Delivery: Deliver material in the manufacturer's original, unopened, undamaged containers with identification labels intact.
- J. Provide labels indicating ACOUSTICAL SOLUTIONS brand name, style, size and thickness.
- K. Storage and Protection: Comply with manufacturer's recommendations. Store acoustical product indoors and protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.



1.7 Project Conditions

L. Environmental Limitations

1. Install AlphaSorb® Flat Acoustic Foam Sheets only in conditions that are within the manufacturer's published limits for temperature and humidity.
2. Areas receiving sheets should be free of construction debris and dust.
3. Mechanical, sprinkler and electrical trades shall have completed their work above the ceiling structure and within structural walls prior to commencement of product installation.

1.8 Maintenance

- M. Extra Materials: Provide a minimum of 1 box or 2%, whichever is larger, of additional materials if required for use by owner or the building maintenance and repair.
- N. Provide new unopened cartons of extra materials, packaged with protective covering for storage and identified with appropriate labels.

PART 2 – PRODUCTS

2.1 MANUFACTURER

O. ACOUSTICAL SOLUTIONS

1. 2420 Grenoble Road, Richmond, VA 2329 | PH: 800-782-5742 | AcousticalSolutions.com

2.2 MATERIALS

- P. ACOUSTICAL SOLUTIONS sheets: Acoustical sheets are manufactured from 100% open-cell melamine foam with the following characteristics:
1. Fire Resistance: ASTM E84, Class A
 2. ACOUSTICAL SOLUTIONS White Acoustical Sheets
 - a. NRC: 0.80 per ASTM C423 Type A mounting at 1.5" inches thick
 - b. NRC: 1.00 per ASTM C423 Type A mounting at 2" inches thick
 - c. NRC: 1.10 per ASTM C423 Type A Mounting at 3" inches thick
 3. ACOUSTICAL SOLUTIONS Light Grey Acoustical Sheets
 - a. NRC: 0.80 per ASTM C423 Type A mounting at 1.5" inches thick
 - b. NRC: 0.90 per ASTM C423 Type A mounting at 2" inches thick
 - c. NRC: 1.05 per ASTM C423 Type A Mounting at 3" inches thick
 4. Foam Density: Light Grey 0.56 lbs./ft³ +/- 0.09 lbs./ft³
White 0.47lbs./ft³ +/- 0.13lbs./ft³
 5. Service Temperature: -40 ° F to 350 ° F
 6. Size: Nominal: 24 inches x 48 inches (607 mm x 1220 mm) or 48 inches by 96 inches (1220mm x 2438mm). Custom sizes available.
 7. Sheet Thickness: Nominal 1.5" inches (38mm), 2" inches (51mm) or 3" inches (76mm) thick. Other thicknesses



available upon request, such as 4" thick.

8. Manufacturers Standard Textiles/Colors: Available upon request.

Q. Product Substitutions: Not permitted.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine sheet installation, with installer present, for compliance with requirements specified in this and other applicable Sections affecting product installation and with requirements for installation tolerances and other conditions affecting performance of the selected ACOUSTICAL SOLUTIONS product.

3.2 INSTALLATION

- A. Do not begin installation until materials sufficient to complete an entire room are received and prepared for installation.
- B. Symmetrically locate product layout, as desired, in each space. Coordinate work with other trades so that lighting fixtures, HVAC and other ceiling and/or wall mounted fixtures work with Sheet and Baffle layout.
- C. Install materials in accordance with manufacturer's printed instructions and to comply with governing regulations, fire resistance rating requirements as indicated and industry standards applicable to the work.
- D. Take care not to damage or mark the product; wear clean cotton or canvas gloves and avoid the use of latex gloves.

3.2 CLEANING

- A. Clean exposed surfaces of acoustical product and any installation accessories to comply with manufacturer's instructions for cleaning.
- B. Touch up any minor finish damage.
- C. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

3.3 PROTECTION

- A. Protect installed products until completion of project.

END OF SECTION

