**SECTION 09 84 00**

**Acoustic Room Components**

**Soundsoak® 60 Mineral Fiber and Soundsoak 85 Fiberglass Wall Panels**

**PART 1 – GENERAL**

* 1. **RELATED DOCUMENTS**

Drawings and general conditions of Contract, including General and Supplementary Conditions and Divisions-1 Specification sections apply to work of this section.

* 1. **SUMMARY**

1. Section Includes
   1. Acoustical wall panels
   2. Concealed mounting system
   3. Perimeter Trim
2. Related Sections
   1. Section 09 84 13 – Fixed Sound-Absorptive Panels
   2. Section 09 84 14 – Acoustic Stretched-Fabric Wall Systems
   3. Section 09 84 33 – Sound-Absorbing Wall Units
   4. Section 09 77 23 – Fabric-Wrapped Panels
   5. Section 02 42 00 - Removal and Salvage of Construction Materials
   6. Division 26 - Electrical
3. ALTERNATES
   1. Prior Approval: Unless otherwise provided for in the Contract documents, proposed product substitutions may be submitted no later than TEN (10) working days prior to the date established for receipt of bids. Acceptability of a proposed substitution is contingent upon the Architect's review of the proposal for acceptability and approved products will be set forth by the Addenda. If included in a Bid are substitute products that have not been pre-approved by the architect and included in the Addenda, the originally specified products shall be provided without additional compensation.
   2. Submittals that do not provide adequate data for the product evaluation will not be considered. The proposed substitution must meet all requirements of this section, including but not necessarily limited to, the following: Single source materials suppliers; performance; Panel design, size, composition, color, and finish; Mounting system component profiles and sizes; Compliance with the referenced standards.
   3. **REFERENCES**
4. American Society for Testing and Materials (ASTM):
   1. ASTM C 423 Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
   2. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
   3. ASTM E 1414 Standard Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum
5. NFPA 70 National Electrical Code
6. International Code Council-Evaluation Services - AC 156 Acceptance Criteria for Seismic Qualification Testing of Non-structural Components
7. International Code Council-Evaluation Services Report - Seismic Engineer Report
   1. ESR 1308 - Armstrong Suspension Systems
8. LEED - Leadership in Energy and Environmental Design is a set of rating systems for the design, construction, operation, and maintenance of green buildings
   1. **SYSTEM DESCRIPTION**
9. Wall-mounted panels
   1. **SUBMITTALS**
10. Product Data: Submit manufacturer's [technical data](https://www.armstrongceilings.com/content/dam/armstrongceilings/commercial/north-america/data-sheets/soundsoak-walls-data-sheet.pdf) for each type of acoustical wall panel and mounting system required.
11. Samples: Minimum [fabric samples](https://www.armstrongceilings.com/commercial/en/samples/order-samples.html#lineId=32831) of specified acoustical panel.
12. Shop Drawings: Layout and details of acoustical wall showing locations of panels.
13. Acoustical Certifications: Manufacturer's certifications that products comply with specified requirements, including laboratory reports showing compliance with specified tests and standards. For acoustical performance, each carton of material must carry an approved independent laboratory classification, such as Underwriter’s Laboratory (UL) of NRC.
    1. If the material supplied by the acoustical subcontractor does not have an independent laboratory classification of acoustical performance on every carton, subcontractor shall be required to send material from every production run appearing on the job to an independent or NVLAP approved laboratory for testing, at the architect's or owner's discretion. All products not conforming to manufacturer's current published values must be removed, disposed of, and replaced with complying product at the expense of the Contractor performing the work.
    2. **SUSTAINABLE MATERIALS**
14. Transparency: Manufacturers will be given preference when they provide documentation to support sustainable requirements for the following: Material ingredient transparency, Removal of Red List Ingredients per LBCV3, Life Cycle impact information, Low-Emitting Materials, and Clean Air performance.
    1. End of Life Programs/Recycling: Where applicable, manufacturers that provide the option for recycling of their products into new products at end-of-life through take-back programs will be preferred.
    2. Products meeting LEED V4 requirements including:
       1. Storage & Collection of Recyclables
       2. Construction and Demolition Waste Management Planning
       3. Building Life-Cycle Impact Reduction
       4. Building Product Disclosure and Optimization Environmental Product Declarations
       5. Building Product Disclosure and Optimization Sourcing of Raw Materials
       6. Building Product Disclosure and Optimization Material Ingredients
       7. Construction and Demolition Waste Management
    3. **QUALITY ASSURANCE**
15. Single-Source Responsibility: Provide acoustical panel units and grid components by a single manufacturer to ensure fit and function.
16. Installer Qualifications: Company specializing in performing specified work type, a minimum of three years of documented experience, and approved by the manufacturer.
17. Fire Performance Characteristics: Identify acoustical wall components with appropriate markings of applicable testing and inspecting organization.
18. Surface Burning Characteristics: Tested per ASTM E 84 and complying with ASTM E 1264 Classification.
    1. **DELIVERY, STORAGE, AND HANDLING**
19. Deliver acoustical wall units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
20. Before installing acoustical wall units, permit them to reach room temperature and a stabilized moisture content.
21. Handle acoustical wall units carefully to avoid damaging in any way.
    1. **PROJECT CONDITIONS**
22. Space Enclosure:
    1. Building areas to receive wall panels shall be free of construction dust and debris. Products with HumiGuard Plus performance and hot dipped galvanized steel, aluminum or stainless-steel suspension systems can be installed up to 120°F (49°C) and in spaces before the building is enclosed, where HVAC systems are cycled or not operating. Cannot be used in exterior applications where standing water is present or where moisture will come in direct contact with the wall.
    2. **WARRANTY**
23. Acoustical Panel: Submit a written warranty executed by the manufacturer, agreeing to repair or replace panels that fail within the warranty period. Failures include, but are not limited to the following:
    1. Acoustical Wall Panels: Sagging and warping as a result of defects in materials or factory workmanship.
    2. Mounting System: Rusting and manufacturer's defects
24. Warranty Period:
    1. Wall System: One (1) year from date of substantial completion
25. The Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.
    1. **MAINTENANCE**
26. Extra Materials: Deliver extra materials to Owner. Furnish extra materials described below that match products installed. Packaged with protective covering for storage and identified with appropriate labels.
    1. Acoustical Wall Units: Furnish quality of full-size units equal to 5.0 percent of amount installed.
    2. Mounting System Components: Furnish quantity of each exposed suspension component equal to 2.0 percent of amount installed.

**PART 2 – PRODUCTS**

Attention Design Professional: Please edit Part 2 based on your project needs. Select product attributes and acceptable product item (s) that fit with the requirements of your project. Delete all items from the specification that do not relate to your project needs. Please refer to the Armstrong website for additional ceilings, walls, suspension and mounting systems, perimeter trim options, and accessories. The related guide specifications for each of these items are available on the Armstrong website.

* 1. **MANUFACTURERS**
  2. Acoustical Wall Panels:
     1. Armstrong World Industries, Inc.
  3. Mounting Systems:
     1. Armstrong World Industries, Inc.

**2.2 ACOUSTICAL WALL UNITS**

* 1. Acoustic Room Components
     1. Surface Texture: Fabric
     2. Composition: Mineral Fiber (Soundsoak 60) or Fiberglass (Soundsoak 85)
     3. Fabric:  
        FR-701: Blue Neutral (FRBN), Black (FRBL), Blue Papier (FRBR), Ultramarine (FRUM), Blue Plum (FRBE), Wheat (FRWE), Crystal Blue (FRCB), Silver Neutral (FRSN), Grey Mix (FRGM), Opal (FROP), Bone (FRBO), Deep Burgundy (FRDB), Quartz (FRQZ), Silver Papier (FRSP), Cement Mix (FRCM)  
        Lido: Bryce Canyon (LDBC), Balboa (LDBA), Hermosa (LDHE), Oak Bluffs (LDOB)

Anchorage: Angora (ANAG), Vanilla (ANVN), Goose (ANGS), Birch (ANBR)  
Metallation: Chrome (MTCH), Polished Pewter (MTPP), Stainless (MTST), Stove Pipe (MTSP), Welded Steel (MTWS)  
Spinel: Opal (SPOP), Sandstone (SPSS)

* + 1. Size:   
       Soundsoak 60: 30” x 72”, 30” x 96”, 30” x 108”, 30” x 120”  
       Soundsoak 85: 24” x 72”, 24” x 96”, 24” x 108”, 24” x 120”
    2. Edge Profile: Square
    3. Noise Reduction Coefficient (NRC) ASTM C 423 Classified w/ UL label on product carton: 0.75
    4. Sound Transmission Class (STC): ASTM E90: 43 (Soundsoak 60 only)
    5. Flame Spread: ASTM E 1264; Class A 25/250
    6. Recycle Content: Up to 67% for Soundsoak 60 and 53% for Soundsoak 85 total recycled content. (Total recycled content: pre-consumer, post-consumer and post-industrial)
    7. Basis of Design: Soundsoak 60 (item 40\_ \_0\_ \_ \_ \_) or Soundsoak 85 (item 32\_ \_ 1 \_ \_ \_ \_)**,** as manufactured by Armstrong World Industries, Inc.
    8. Substitutions: Refer to Alternates in Part 1.
  1. **MOUNTING SYSTEMS**

1. Components as manufactured by Armstrong World Industries, Inc.  
   3856\_ \_ \_ \_ 120” Impact Corner (All fabrics)  
   4062\_ \_ 120” long 1” J-Molding (BL, GW, FG, LT, SA)  
   4064\_ \_ 120” long 3/4” J-Molding (BL, GW, FG, LT, SA)
2. Accessories as manufactured by Armstrong World Industries, Inc.  
   5861\_ \_ \_ 100” Mounting Rail (Solid Wood: CCY, CMA, CWA, NDC, NLC, NMP, XX)  
   5862 100” Rail Spacer for Soundsoak 85 (Solid Wood: XX)  
   5863\_ \_ \_ 100” Rail Insert (Solid Wood: CCY, CMA, CWA, NDC, NLC, NMP, XX, BL)  
   5963NA 96” Rail Insert – Aluminum  
   5864\_ \_ \_ 100” Rail Cap (Solid Wood: CCY, CMA, CWA, NDC, NLC, NMP, XX)  
   5865XX 100” Extended Rail Cap for Soundsoak 85 (Solid Wood: XX)  
   5866\_ \_ \_ 100” Easel Ledge (Solid Wood: CCY, CMA, CWA, NDC, NLC, NMP, XX)

**PART 3 – EXECUTION**

**3.1 EXAMINATION**

1. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer's printed recommendations.

**3.2 PREPARATION**

1. Measure each area and establish layout of acoustical units to balance border widths at opposite edges of the space. Coordinate panel layout with mechanical and electrical fixtures.
2. Coordination: Furnish layouts for preset inserts, clips, and other wall anchors whose installation is specified in other sections.
   1. Furnish concrete inserts and similar devices to other trades for installation well in advance of time needed for coordination of other work.

**3.3 INSTALLATION**

1. Follow manufacturer installation instructions.
2. Install mounting system and panels in accordance with the manufacturer's instructions, and in compliance with ASTM C 636 and with the authorities having jurisdiction.

**3.4 ADJUSTING AND CLEANING**

1. Replace damaged and broken panels.
2. Clean exposed surfaces of acoustical walls, including trim, edge moldings, and mounting members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage. Remove any wall products that cannot be successfully cleaned and or repaired. Replace with attic stock or new product to eliminate evidence of damage.