Skyacoustics

Please understand that you are responsible for the accuracy of all project specifications, including any Sky Acoustics Inc. guide specifications that you use.

SKY ACOUSTICS INC. SHALL NOT BE LIABLE FOR ANY DAMAGES ARISING OUT OF THE USE OF ANY OF ITS GUIDE SPECIFICATIONS.

### SECTION 095113/095123

**Acoustical Absorption Baffles with Coated Finish**

**PART 1 – GENERAL**

* 1. **RELATED DOCUMENTS**

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

**1.2 SUMMARY**

A. Section Includes: Wall Sound Absorption.

1. Related Work: The following items are **not** included in this Section and are specified under the designated Sections:

Section 092000 – PLASTER AND GYPSUM BOARD ASSEMBLIES for plaster and gypsum board walls

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Section 099000 - PAINT finish of wall surface behind and between panelling

Division 23 – HVAC prtoducts and services.

Division 26 - Lighting fixtures, and electrical services and connections.

Other acoustical products

C. Alternates

1. Prior Approval: Unless otherwise provided for in the Contract documents, proposed product substitutions may be submitted no later than FIFTEEN (15) 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 in Addenda. If substitute products that have not been approved by Addenda are included in a Bid, the 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 (if specified in Section 1.5); Acoustical performance; Fire performance; Panel design, size, composition, color, and finish.

## 1.3 REFERENCES

A. ASTM International:

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 1264 Classification for Acoustical Ceiling Products

B. United States Green Building Council (USGBC)

1. LEED - Leadership in Energy and Environmental Design is a set of rating systems for the design, construction, operation, and maintenance of green buildings

C. United States International Building Code

1. Section 803 Wall and Ceiling Finishes.

**1.4 QUALITY ASSURANCE**

A. Manufacturer:

1. Company manufacturing the specified product shall have adequate capacity required for the projects listed, and have successfully completed similar projects for a period of not less than three years.

B. Installer:

1. The installer shall be competent, experienced, and familiar with acoustic baffle installation methods.

C. Reference Standards: Conform to all governing laws, building codes, and the following performance criteria:

1. Fire Performance Characteristics: Test(s) must be performed by an independent testing organization acceptable to authorities having jurisdiction. Tests shall be carried out per ASTM E 84 procedures and complying with US International Building Code Classification. Sky Acoustics Baffle components shall provide surface‑burning characteristics as shown below. (building code requirements may necessitate composite panel testing using identical materials and construction representative of a typical installation, using the specified finish(es) – Sky Acoustics has a considerable number of composite ASTM E84 panel tests on file).

ASTM E-84 Classification Class "A" or "1"

Flame Spread: 25 or less

Smoke Developed: 450 or less.

2. Acoustical Performance Characteristics: Tests must be performed by an independent testing organization acceptable to authorities having jurisdiction. Tests shall be carried out per ASTM C423 procedures – type J mounting per ASTM E795. Acoustical Absorption Baffles shall provide sound absorption (metric sabines/m²) as shown below, determined by testing fully assembled (composite) production material (4 rows of 2.44m x 0.61m x .05m (96”W x24” H x 2” thick) baffles spaced at 0.61m (24”) centers).

**Frequency (Hz)**

**Panel Thickness Finish 125 250 500 1000 2000 4000**

Acoustical Absorption 51mm (2”) Coated 2.40 2.41 3.53 3.55 3.77 3.74

(Metric Sabines per Unit)

Note: If testing to the above standards is required for non-standard finishes on panels, a cost of testing allowance ***must*** be a part of the specification. Remember there are no guarantees with fire testing, and it may be necessary to test more than one proposed finish in order to meet the code requirements. Please contact an accredited fire or acoustic testing laboratory for information on cost of testing.

D. 1. Coordination of Work: Coordinate acoustical ceiling work with installers of related work including, but not limited to building insulation, gypsum board, light fixtures, mechanical systems, electrical systems, and sprinklers.

**1.5 SUBMITTALS**

1. Product data: Technical data sheet for coated finished Acoustical Absorption Baffles, and mounting system.

2. Samples: Manufacturer’s standard 12” (305mm) x 6” (152mm) sample of acoustical panel specified in Part 2 to the Owner for approval. Acoustical absorption baffle sample shall be production material specified for final use.

3. Shop Drawings: Submit to Architect for stamp approval, a complete set of CAD generated shop drawings or standard details prepared by the manufacturer showing all necessary details and dimension requirements of acoustical absorption baffles. The shop drawings will subsequently be field verified and revised as required by the Architect.

**1.6 Delivery, Storage, and Handling**

1. Comply with acoustic panel manufacturers’ written instructions for minimum and maximum temperature and humidity requirements for shipment, storage, and handling.

1. Deliver materials and panels in unopened bundles and stored in a temperature controlled dry place with adequate air circulation.
2. On-site storage shall be such as to ensure all panels and associated materials are protected from damage.
3. Prior to installation, site must be free of wet and dusty trades and the climatic conditions stabilized to normal operational levels. Allow baffles to stabilize on-site for 72 hours prior to installation.
4. Baffles must be handled by persons wearing clean light-weight gloves. Persons installing hardware (grid, hanger wires/cables, clips, screws, anchors, etc.) must wear clean light-weight gloves when handling the panels.

**PART 2 - PRODUCTS**

**2.1 Acoustical Absorption Baffles**

Furnish and deliver pre-fabricated acoustical absorption baffles as described in this section for installation in areas as shown on drawings requirements:

1. MANUFACTURER: Sky Acoustics Inc.
2. Acoustical Absorption Baffles.
3. Pre-fabricated Acoustical Absorption Baffles suspended below a suspended grid/frame, or a solid substrate as follows:
4. Baffle Type: Square, Rectangle, Flat, other geometric shapes
5. Baffle Size: … As indicated on architectural drawings
6. Baffle Composition: 2 x ¾” or 2 x 1” (25mm Medium Density 6-7 PCF (96 – 112 KCM) thick Fiberglass Cores + 1/16” (1.6mm) High Density 16-20 PCF (256 – 320 KCM) fiberglass facer applied to the 2 baffle faces + Acoustical veil applied to all exposed surfaces. All edges are resin hardened. Specified coated finish is applied to all of the baffle faces and all edges,
7. Approximate Bafflel Weight: 1.8 PSF (8.8 KSM) - based on 2’x8’x2 1/8” (0.61m x 2.44m x 51mm) baffle size – coated finish.
8. Nominal Thickness: 1 5/8” (41mm) ,2” (51mm), 2 1/8” (54mm) – coated finish.

Custom thicknesses are available.

1. Surface Finish: Specified coated finish.
2. Edges: Specified coated finish.
3. Baffle Mounting System: Sky Acoustics ‘D’ ring, or Spiral Spring Anchor, factory installed in resin spots and mounted to the top of the baffles. Baffles are mechanically mounted using customer/installer supplied hanger wire/chain.

1. Installation.
   1. Installation shall be by use of factory installed ‘D’ rings, or Spiral Spring Anchors, secured to the top edge of the baffles. Customer/installer supplied hanger wire or chain is attached to the ‘D’ rings securing the baffles at the correct height and location.
   2. All suspension sub-frame and hardware (if required), hanger wires,chain, rods, anchors, mouldings, etc., are to be supplied by the installing contractor.
   3. The installation shall be in accordance with local code requirements, manufacturers’ instructions, and as shown on Sky Acoustics approved shop drawings, or detail sheets. Installer shall provide for shimming and adjustments as required to maintain consistent alignment of joints, of finished panel faces, and to ensure unstressed clip locations.
2. Warranty: 2 years from date of panel receipt.

**PART 3 - EXECUTION**

**3.1 General**

1. Provide Sky Acoustics Inc. Acoustical Absorption Baffles where indicated on drawings using mounting system specified.

2. Installation labor for removal and replacement of product improperly installed and not installed to specified details shown on shop drawings and installation instructions, shall be the responsibility of the installing contractor.

3. Owner shall inspect product and installation on completion. The manufacturer shall provide repair or replacement of components not conforming to specified requirements herein.

**PART 4 - CONTACT**

**4.1** For all support, questions, or enquiries contact:

**Sky Acoustics Inc, 55 Bradwick Drive, Concord. Ontario. L4K 1K5. Canada.**

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