**Product Name:** Ecophon Solo Baffle [Rectangle, Wave, ZigZag]

**Manufacturer:** CertainTeed Architectural

# SECTION 09 51 00 – ACOUSTICAL CEILINGS

## PART 1 – GENERAL

* 1. RELATED DOCUMENTS

A. Drawings and general provisions of the contract apply to this section. This includes General and Supplementary Conditions of Division 01 (1) Specification Sections.

* 1. SUMMARY

1. Section includes acoustic panels and suspension systems for ceilings
2. Related Sections
3. Section 09 20 00 (09250) - Gypsum Board, Framing & Accessories
4. Division 23 (15) – Heating, Ventilating and Air Conditioning (HVAC)
5. Division 26 (16) – Electrical
   1. REFERENCES
6. ASTM C423 – *Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method*
7. ASTM C635 – *Standard Specification for Metal Suspension Systems for Acoustic Tile and Lay-in Panel Ceilings*
8. ASTM E84 – *Test Method for Surface Burning Characteristics of Building Materials*
9. ASTM E119 – *Fire Test of Building Construction and Materials*
10. ASTM E580 – *Practice for Application of Ceiling Suspension Systems for Acoustic Tile and Lay-in Panels in Areas Requiring Seismic Restraint*
11. ASTM E795 – *Practice for Mounting Test Specimens During Sound Absorption Tests*
12. ASTM E1264 – *Classification for Acoustic Ceiling Products*
13. ASTM E1477 – *Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating Sphere Reflectometer*
14. CAN/ULC-S102 – *Method of Test for Surface Burning Characteristics of Building Materials and Assemblies*
15. DIN 5036 – *Radiometric and Photometric Properties of Materials*
16. ISO 4611 – *Plastic – Determination of the Effects of Exposure to Damp, Heat, Water Spray and Salt Mist*
17. ISO 11654 – *Sound Absorbers for Use in Buildings – Rating of Sound Absorption*
18. ISO 14025 – *Environmental Labels and Declarations -- Type III Environmental Declarations -- Principles and Procedures*
19. CISCA (Ceilings & Interior Systems Construction Association) – *Ceilings Systems Handbook*
20. CISCA (Ceilings & Interior Systems Construction Association) – *Acoustical Ceilings – Use and Practice*
21. CISCA (Ceilings & Interior Systems Construction Association) – *Guidelines For Seismic Restraint Direct Hung Suspended Ceiling Assemblies*
22. Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers Version 1.2
    1. California Dept. of Public Health CDPH/EHLB/Standard Method v1.2, 2017
23. Cradle-to-Cradle Certified Standard v4.0 / [C2Ccertified.org](https://c2ccertified.org/)
24. Cradle-to-Cradle Material Health Certificate Standard v4.0 / [C2Ccertified.org](https://c2ccertified.org/)
    1. SUBMITTALS
25. Product Data
26. Submit manufacturer’s published technical information for each product indicated
27. Shop Drawings
28. Submit reflected ceiling plans drawn to scale prescribed by Architect
    1. Include coordinated penetrations and ceiling-mounted items
    2. Include any necessary details or drawings from the manufacturer regarding recommended installation
29. Samples
30. Submit manufacturer’s sample of each baffle indicated
31. Submit representative manufacturer’s sample of each suspension member indicated
32. Certifications

# Provide manufacturer’s written certification that products submitted meet or exceed all specified requirements

1. Provide third party verified life cycle information with published environmental product declaration (EPD)
   1. Per ISO 14025 *Environmental Labels and Declarations - Type III Environmental Declarations - Principles and Procedures*
   2. QUALITY ASSURANCE
2. Source Limitations
3. Acoustic baffle
   1. Obtain each type through one source from a single manufacturer
4. Suspension System
5. Obtain each type through one source from a single manufacturer
6. Installer Qualifications
7. Must be experienced in the installation of systems similar to those specified herein
8. Surface Burning Characteristics
9. ASTM E1264
   1. Class A
10. ASTM E84 [United States]
    1. Flame spread of 25 or less
    2. Smoke developed of 50 or less
11. CAN/ULC-S102 [Canada]
    1. Flame spread of 25 or less
    2. Smoke developed of 50 or less
    3. DELIVERY, STORAGE AND HANDLING
12. Delivery of acoustic baffle products will be in the original unopened packages with the manufacturer’s label intact
13. Handling and storage should be in accordance with the manufacturer’s Safety Data Sheets (SDS)
14. Individual panels should be handled carefully to avoid damage
    1. PROJECT CONDITIONS
15. Environmental Limitations
16. Install acoustic panels only in conditions that are within the manufacturer’s published limits for temperature and humidity
17. Areas receiving ceiling panels should be free of construction debris and dust
18. Mechanical, sprinkler and electrical trades shall have completed their work above the ceiling structure prior to commencement of the ceiling panel installation
    1. COORDINATION
19. Coordinate the installation of the acoustic baffles with any and all trades whose work is impacted by that installation
    1. EXTRA MATERIALS
20. Provide extra materials in the manufacturer’s unopened packaging, with the manufacturer’s label intact, as detailed below
21. Acoustic baffles – Minimum 5% of each type installed
22. Suspension System Components – Minimum 5% of each type installed

**PART 2 - PRODUCTS**

2.1 MANUFACTURER

1. CertainTeed Architectural
2. Address: 20 Moores Road, Malvern, PA 19355
3. Telephone: 800-233-8990
4. Web: <https://www.certainteed.com/>

## 2.2 ACOUSTIC CEILING UNITS

1. Acoustic free-hanging element (ACP) – [Type ACP-1]
2. Name: Ecophon Baffle [Rectangle, Wave, ZigZag]
3. Physical Characteristics
   1. Geometric panel with two finished surfaces and fully painted edges
   2. Type: XII (per ASTM E1264)
   3. Form: 2 (per ASTM E1264)
   4. Pattern: G (per ASTM E1264)
   5. Size:
      1. Rectangle:
         1. 200 x 1200 mm
         2. 300 x 1200 mm
         3. 600 x 1200 mm
         4. 200 x 1800 mm
         5. 300 x 1800 mm
         6. 600 x 1800 mm
      2. Wave
         1. 200-300 x 1800 mm
         2. 300-600 x 1800 mm
      3. ZigZag
         1. 200-300 x 1800 mm
         2. 300-600 x 1800 mm
   6. Thickness: 40 mm (≈1-1/2”)
   7. Edges: fully painted, square
   8. Finished Surfaces: Akutex FT
   9. Finished Surface Color: White
      1. Ecophon Color Options: [Dark Diamond, Silk Slate, Silver Stone, Cloudy Day, Golden Field, Highland Fog, Moonlight Sky, Morning Drizzle, Ocean Storm, Ruby Rock, Silent Steam, Sunset Heat, Volcanic Ash, Scallop Shells, Peach Rose, Goji Berry, Sage Garden, Eucalyptus Leaf, Summer Forest, Fresh Clover, Wet Sand]
   10. Core Composition: high-density fiberglass
   11. Recycled Content: 54%
       1. 0% (pre-consumer)
       2. 54% (post-consumer)
4. Performance Criteria
   1. Average Sabins per unit with rows spaced 2-ft O.C. (per ASTM C423 at NRC frequencies)
      1. Rectangle 200 x 1200
         1. 3.2 Sabins
      2. Rectangle 300 x 1200
         1. 3.5 Sabins
      3. Rectangle 600 x 1200
         1. 7.1 Sabins
      4. Rectangle 200 x 1800
         1. 5.4 Sabins
      5. Rectangle 300 x 1800
         1. 5.9 Sabins
      6. Rectangle 600 x 1800
         1. 8.1 Sabins
      7. Wave 200-300 x 1800
         1. 5.9 Sabins
      8. Wave 300-600 x 1800
         1. 7.8 Sabins
      9. ZigZag 200-300 x 1800
         1. 5.7 Sabins
      10. ZigZag 300-600 x 1800
          1. 7.8 Sabins
   2. Light Diffusion per DIN 5036
      1. 99%
   3. Light Reflectance (LR) per ASTM E1477
      1. Up to 0.85 (dependent upon color)
   4. Humidity Resistance per ISO 4611
      1. Install in conditions that do not exceed 95% relative humidity and 86° F
   5. Flame Spread Classification per ASTM E84 & CAN/ULC-S102: Class A
5. Independent Certifications and Recommendations
   1. Environmental Product Declaration
      1. Third-party verified Type III Environmental Product Declaration
         1. Per ISO 14025 *- Environmental Labels and Declarations - Type III Environmental Declarations -- Principles and Procedures*
   2. Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers Version 1.2
      1. California Dept. of Public Health CDPH/EHLB/Standard Method v1.2, 2017
   3. Cradle-to-Cradle Certified
      1. Bronze
   4. Cradle-to-Cradle Material Health Certificate
      1. Silver Level

2.3 SUSPENSION

1. Product
2. Name: Connect Solo Baffle direct suspension from structure
   1. Components
      1. Connect Baffle Profile [for direct attachment to structure]
         1. Length: 2400 mm
         2. Color: white
   2. Solo Baffle Anchor [factory pre-installed]
   3. Connect Profile Connector
   4. Connect Guiding Pin
3. Name: Connect Solo Baffle adjustable wire suspension
   1. Components
      1. Solo Baffle Hook [factory pre-installed]
      2. Connect Guiding Pin
      3. Connect Adjustable Wire Hanger Assembly
         1. Length:
            1. Connect Adjustable Wire & Hanger [2647 2174]

2000 mm (approx. 78.75 inches)

* + - * 1. Connect Adjustable Wire & Hanger [2647 2180]

5000 mm (approx. 196.85 inches)

## PART 3 – EXECUTION

3.1 EXAMINATION

1. Ascertain acceptability of substrates and building conditions under which the ceiling system is to be installed. Do not proceed with the installation until any and all unacceptable conditions have been rectified.

3.2 PREPARATION

1. Unless otherwise directed by the reflected ceiling plan, measure the space in which the ceiling system is to be installed and establish a layout that balances border widths at opposite ends of the ceiling.
2. When possible, coordinate the ceiling system layout to avoid the use of less than half width panels at the perimeter.

3.3 INSTALLATION

1. Install the ceiling system in accordance with the following:
2. Manufacturer’s printed instructions
   1. Available online at <https://www.certainteed.com/>
3. Ceilings & Interior Systems Construction Association (CISCA) recommendations
4. Applicable local code requirements
5. Approved shop drawings

3.4 MAINTENANCE

1. Replace any and all damaged ceiling system components
2. Clean any and all exposed surfaces in accordance with the manufacturer’s printed instructions

# END OF SECTION

**CertainTeed Architectural shall be held harmless for any damages resulting from the use of this specification guide**