

[2112]

Product Name: Symphony *m*
Manufacturer: CertainTeed Architectural

SECTION 09 51 00 (09510) – ACOUSTIC CEILINGS

PART 1 – GENERAL

1.1 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.

1.2 SUMMARY

- A. Section includes acoustic panels and suspension systems for ceilings
- B. Related Sections
 - 1. Section 09 20 00 (09250) - Gypsum Board, Framing & Accessories
 - 2. Division 23 (15) – Heating, Ventilating and Air Conditioning (HVAC)
 - 3. Division 26 (16) – Electrical

1.3 REFERENCES

- A. ASTM A641 – *Specification for Steel Sheet, Zinc-Coated (galvanized) Carbon Steel Wire*
- B. ASTM A653 – *Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galv-annealed) by the Hot-Dip Process*
- C. ASTM C423 – *Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method*
- D. ASTM C635 – *Standard Specification for Metal Suspension Systems for Acoustic Tile and Lay-in Panel Ceilings*
- E. ASTM C636 – *Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings*
- F. ASTM D6866 – *Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis*
- G. ASTM E84 – *Test Method for Surface Burning Characteristics of Building Materials*
- H. ASTM E580 – *Practice for Application of Ceiling Suspension Systems for Acoustic Tile and Lay-in Panels in Areas Requiring Seismic Restraint*
- I. ASTM E795 – *Practice for Mounting Test Specimens During Sound Absorption Tests*
- J. ASTM E1111 – *Test Method for Measuring Interzone Attenuation of Ceiling Systems*
- K. ASTM E1264 – *Classification for Acoustic Ceiling Products*
- L. ASTM E1414 – *Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum*

- M. ASTM E1477 – *Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating Sphere Reflectometer*
- N. CAN/ULC-S102 – *Method of Test for Surface Burning Characteristics of Building Materials and Assemblies*
- O. ISO 14644 – *Classification of Air Cleanliness*
- P. ISO 14025 - *Environmental Labels and Declarations -- Type III Environmental Declarations -- Principles and Procedures*
- Q. CISCA (Ceilings & Interior Systems Construction Association) – *Ceilings Systems Handbook*
- R. CISCA (Ceilings & Interior Systems Construction Association) – *Acoustical Ceilings – Use and Practice*
- S. CISCA (Ceilings & Interior Systems Construction Association) – *Guidelines For Seismic Restraint Direct Hung Suspended Ceiling Assemblies*
- T. Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers Version 1.2
 - a. California Dept. of Public Health CDPH/EHLB/Standard Method v1.2, 2017
- U. Health Product Declaration Standard v2.0 – hpdcollaborative.org
- V. International Living Future Institute – *LBC Declare Label*

1.4 SUBMITTALS

- A. Product Data
 - 1. Submit manufacturer’s published technical information for each product indicated
- B. Shop Drawings
 - 1. Submit reflected ceiling plans drawn to scale prescribed by Architect
 - a. Include coordinated penetrations and ceiling-mounted items
 - b. Include any necessary details or drawings from the manufacturer regarding recommended installation
- C. Samples
 - 1. Submit representative manufacturer’s sample of each panel indicated
 - 2. Submit representative manufacturer’s sample of each suspension member indicated
- D. Certifications
 - 1. Provide manufacturer’s written certification that products submitted meet or exceed all specified requirements
 - 2. Provide laboratory reports that certify compliance with specified tests
 - 3. Provide third party verified life cycle information with published environmental product declaration (EPD)
 - a. Per ISO 14025 *Environmental Labels and Declarations - Type III Environmental Declarations - Principles and Procedures*

1.5 QUALITY ASSURANCE

- A. Source Limitations
 - 1. Acoustic Ceiling Panel

- a. Obtain each type through one source from a single manufacturer
- 2. Suspension System
 - a. Obtain each type through one source from a single manufacturer
- B. Installer Qualifications
 - 1. Must be experienced in the installation of systems similar to those specified herein
- C. Surface Burning Characteristics
 - 1. ASTM E1264
 - a. Class A
 - 2. ASTM E84 [United States]
 - a. Flame spread of 25 or less
 - b. Smoke developed of 50 or less
 - 3. CAN/ULC-S102 [Canada]
 - a. Flame spread of 25 or less
 - b. Smoke developed of 50 or less

1.6 DELIVERY, STORAGE AND HANDLING

- A. Delivery of acoustic ceiling products will be in the original unopened packages with the manufacturer's label intact
- B. Handling and storage should be in accordance with the manufacturer's Safety Data Sheets (SDS)
- C. Individual panels should be handled carefully to avoid damage

1.7 PROJECT CONDITIONS

- A. Environmental Limitations
 - 1. Install acoustic panels only in conditions that are within the manufacturer's published limits for temperature and humidity
 - 2. Areas receiving ceiling panels should be free of construction debris and dust
 - 3. Mechanical, sprinkler and electrical trades shall have completed their work above the ceiling structure prior to commencement of the ceiling panel installation

1.8 COORDINATION

- A. Coordinate the installation of the acoustic ceiling system with any and all trades whose work is impacted by that installation

1.9 EXTRA MATERIALS

- A. Provide extra materials in the manufacturer's unopened packaging, with the manufacturer's label intact, as detailed below
 - 1. Acoustic Panels – Minimum [5%] of each type installed
 - 2. Suspension System Components – Minimum [5%] of each type installed

PART 2 - PRODUCTS

2.1 MANUFACTURER

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

2.2 ACOUSTIC CEILING UNITS

- A. Acoustical Ceiling Panel (ACP) – [Type ACP-1]
 - 1. Name: Symphony *m*
 - 2. Physical Characteristics
 - a. Type: IV (per ASTM E1264)
 - b. Form: 2 (per ASTM E1264)
 - c. Pattern: E (per ASTM E1264)
 - d. Size:
 - 1) [2'x2', 2'x4', 2'x5', 2'x6', 20"x60", 30"x30", 30"x60"]
 - 2) SmartFit
 - 1. [4"x48"]
 - 2. [6"x48"]
 - 3. [12"x24", 12"x48", 12"x60"]
 - 3) Metric (in mm)
 - 1. [500x1500, 600x600, 600x1200, 750x750, 750x1500]
 - 4) Custom Sizes available via CertaSize Program
 - e. Thickness: 3/4" [19mm]
 - f. Edges: [Square, Reveal Beveled for 15/16" grid, Narrow Reveal Corner Beveled for 9/16" grid]
 - g. Finished Surface: Laminated [painted fiberglass mat]
 - 1) Improved Overtone Finish (IOF)
 - 2) Mold/Mildew inhibitor: [BioShield]
 - h. Finished Surface Color: White
 - i. Core Composition: Wet-felted mineral fiber
 - j. Recycled Content: 62%
 - 1) 60% (pre-consumer)
 - 2) 2% (post-consumer)
 - 3. Performance Criteria
 - a. Noise Reduction Coefficient (NRC) per ASTM C423 (E-400 mounting)
 - 1) 0.75
 - b. Light Reflectance (LR) per ASTM E1477
 - 1) 0.90
 - c. Ceiling Attenuation Class (CAC) per ASTM E1414
 - 1) 36
 - d. Clean Room Classification per ISO 14644
 - 1) Class 4 (square edge only)

1. Independently certified
- e. Surface Washability per ASTM D 4828
 - 1) Tested to 1000 cycles
 1. Tested with chemical sanitizers in their manufacturer's recommended dilution (contact CertainTeed for details)
- f. Humidity Resistance
 - 1) Warranted to withstand relative humidity of up to 90% at 104°F without sagging, warping or delaminating for 10-years
- g. Flame Spread Classification per ASTM E84, CAN/ULC-S102: Class A
4. Independent Certifications [requires third-party documentation]
 - a. VOC content
 - 1) Third-party certification of compliance
 1. Per California Dept. of Public Health
CDPH/EHLB/Standard Method v1.2, 2017
 - b. 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*
 - c. USDA Certified Biobased Product – 98%
 - d. Health Product Declaration
 - 1) Per Health Product Declaration Standard v2.0
 1. hpd-collaborative.org
 - e. Living Building Challenge Declare Label
 - 1) *LBC Red List Free*, per International Living Future Institute

2.3 SUSPENSION SYSTEM

- A. Manufacturer: CertainTeed Architectural
- B. For information pertaining to specific suspension system offerings, reference CertainTeed Architectural's library of Suspension System 3-Part Specifications

PART 3 – EXECUTION

3.1 EXAMINATION

- A. 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

- A. 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.
- B. When possible, coordinate the ceiling system layout to avoid the use of less than half width panels at the perimeter.

3.3 INSTALLATION

- A. Install the ceiling system in accordance with the following:
 - 1. Manufacturer's printed instructions
 - a. Available online at www.certainteed.com/architectural
 - 2. ASTM C636
 - 3. Ceilings & Interior Systems Construction Association (CISCA) recommendations
 - 4. Applicable local code requirements
 - 5. Approved shop drawings

3.4 MAINTENANCE

- A. Replace any and all damaged ceiling system components
- B. 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