**Product Name:** Theatre Black *f*

**Manufacturer:** CertainTeed Ceilings

# SECTION 09 51 00 (09510) – ACOUSTIC 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 A641 – *Specification for Steel Sheet, Zinc-Coated (galvanized) Carbon Steel Wire*
7. ASTM A653 – *Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galv-annealed) by the Hot-Dip Process*
8. ASTM C423 – *Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method*
9. ASTM C635 – *Standard Specification for Metal Suspension Systems for Acoustic Tile and Lay-in Panel Ceilings*
10. ASTM C636 – *Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings*
11. ASTM E84 – *Test Method for Surface Burning Characteristics of Building Materials*
12. ASTM E580 – *Practice for Application of Ceiling Suspension Systems for Acoustic Tile and Lay-in Panels in Areas Requiring Seismic Restraint*
13. ASTM E795 – *Practice for Mounting Test Specimens During Sound Absorption Tests*
14. ASTM E1111 – *Test Method for Measuring Interzone Attenuation of Ceiling Systems*
15. ASTM E1264 – *Classification for Acoustic Ceiling Products*
16. ASTM E1414 – *Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum*
17. ASTM E1477 – *Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating Sphere Reflectometer*
18. CAN/ULC-S102 – *Method of Test for Surface Burning Characteristics of Building Materials and Assemblies*
19. ISO 4611 – *Plastic – Determination of the Effects of Exposure to Damp, Heat, Water Spray and Salt Mist*
20. ISO 14644 – *Classification of Air Cleanliness*
21. ISO 14024 Environmental Labels and Declarations - Type I Environmental Labeling - Principles and Procedures
22. CISCA (Ceilings & Interior Systems Construction Association) – *Ceilings Systems Handbook*
23. CISCA (Ceilings & Interior Systems Construction Association) – *Acoustical Ceilings – Use and Practice*
24. CISCA (Ceilings & Interior Systems Construction Association) – *Guidelines For Seismic Restraint Direct Hung Suspended Ceiling Assemblies*
	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 representative manufacturer’s sample of each panel 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

2. Provide laboratory reports that certify compliance with specified tests

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

**PART 2 - PRODUCTS**

2.1 MANUFACTURER

1. CertainTeed Ceilings
2. Address: 20 Moores Road, Malvern, PA 19355
3. Telephone: 800-233-8990
4. Web: [www.certainteed.com/ceilings](http://www.certainteed.com/ceilings)

## 2.2 ACOUSTIC CEILING UNITS

1. Acoustical Ceiling Panel (ACP) – [Type ACP-1]
2. Name: Theatre Black *f*
3. Physical Characteristics
	1. Type: XII (per ASTM E1264)
	2. Form: 2 (per ASTM E1264)
	3. Pattern: E (per ASTM E1264)
	4. Size: [2’x2’, 2’x4’]
	5. Thickness: [5/8”, 1”]
	6. Edges: Square
	7. Finished Surface: Laminated Mat
	8. Finished Surface Color: Black
	9. Optional Panel Backing: Foil
	10. Core Composition: Fiberglass
	11. Recycled Content: 33%
		1. 0% (pre-consumer)
		2. 33% (post-consumer)
4. Performance Criteria
	1. Noise Reduction Coefficient (NRC) per ASTM C423 (E-400 mounting)
		1. 0.75 [5/8”]
		2. 0.90 [1”]
	2. Articulation Class (AC) per ASTM E1111
		1. 180 [5/8”]
		2. 190 [1”]
	3. Light Reflectance (LR) per ASTM E1477
		1. 0.03
	4. Ceiling Attenuation Class (CAC) per ASTM C1414
		1. 20 [5/8” w/ optional foil backing]]
		2. 25 [1” w/ optional foil backing]]
	5. Humidity Resistance
		1. Warranted to withstand relative humidity of up to 95% at 104ºF without sagging, warping or delaminating for 10-years
	6. Flame Spread Classification per ASTM E84, CAN/ULC-S102: Class A
5. Independent Environmental Certifications
	1. Recycled content
		1. Third-party verified Type I Environmental Label
			1. Per ISO 14024 *Environmental Labels and Declarations - Type I Environmental Labeling - Principles and Procedures*

2.3 SUSPENSION SYSTEM

1. Manufacturer: CertainTeed Ceilings
2. For information pertaining to specific suspension system offerings, reference CertainTeed Ceilings’ library of Suspension System 3-Part Specifications

## 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 [www.certainteed.com/commercial-ceilings](http://www.certainteed.com/commercial-ceilings)
3. ASTM C636
4. Ceilings & Interior Systems Construction Association (CISCA) recommendations
5. Applicable local code requirements
6. 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 Ceilings shall be held harmless for any damages resulting from the use of this specification guide**