**Product Name:** Cashmere High NRC

**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 (galvannealed) 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 E119 – *Fire Test of Building Construction and Materials*
13. ASTM E580 – *Practice for Application of Ceiling Suspension Systems for Acoustic Tile and Lay-in Panels in Areas Requiring Seismic Restraint*
14. ASTM E795 – *Practice for Mounting Test Specimens During Sound Absorption Tests*
15. ASTM E1111 – *Test Method for Measuring Interzone Attenuation of Ceiling Systems*
16. ASTM E1264 – *Classification for Acoustic Ceiling Products*
17. ASTM E1414 – *Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum*
18. ASTM E1477 – *Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating Sphere Reflectometer*
19. ISO 14644 – *Classification of Air Cleanliness*
20. ISO 14024 *Environmental Labels and Declarations - Type I Environmental Labeling - Principles and Procedures*
21. ISO 14025 - *Environmental Labels and Declarations -- Type III Environmental Declarations -- 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*
25. California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010
26. Health Product Declaration Standard v1.0 – hpdcollaborative.org
    1. SUBMITTALS
27. Product Data
28. Submit manufacturer’s published technical information for each product indicated
29. Shop Drawings
30. 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
31. Samples
32. Submit representative manufacturer’s sample of each panel indicated
33. Submit representative manufacturer’s sample of each suspension member indicated
34. Certifications

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

1. Provide laboratory reports that certify compliance with specified tests
2. 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
3. Source Limitations
4. Acoustic Ceiling Panel
   1. Obtain each type through one source from a single manufacturer
5. Suspension System
6. Obtain each type through one source from a single manufacturer
7. Installer Qualifications
8. Must be experienced in the installation of systems similar to those specified herein
9. Surface Burning Characteristics
10. ASTM E1264
    1. Class A
11. ASTM E84
    1. Flame spread of 25 or less
    2. Smoke developed of 50 or less
    3. DELIVERY, STORAGE AND HANDLING
12. Delivery of acoustic ceiling 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 Material Safety Data Sheets (MSDS)
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 ceiling system 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 Panels – Minimum [5%] of each type installed
22. Suspension System Components – Minimum [5%] of each type installed

**PART 2 - PRODUCTS**

2.1 MANUFACTURER

1. CertainTeed Ceilings
2. Address: P.O. Box 860 Valley Forge, PA 19482
3. Telephone: 800-233-8990
4. Web: [www.certainteed.com](http://www.certainteed.com)/ceilings

## 2.2 ACOUSTIC CEILING UNITS

1. Acoustical Ceiling Panel (ACP) – [Type ACP-1]
2. Name: [Cashmere High NRC]
3. Physical Characteristics
   1. Type: III (per ASTM E1264)
   2. Form: 1 (per ASTM E1264)
   3. Pattern: C E (per ASTM E1264)
   4. Size: [2’x2’, 2’x4’]
   5. Thickness: 3/4”
   6. Edges: [Square, Reveal for 15/16” grid, Narrow Reveal for 9/16” grid]
   7. Finished Surface: Painted
      1. Mold / mildew inhibitor: [BioShield]
   8. Finished Surface Color: White
   9. Core Composition: Nodulated mineral fiber
   10. Recycled Content: 70%
       * 1. 70% (pre-consumer)
         2. 0% (post-consumer)
   11. Rapidly Renewable Content: 9%
4. Performance Criteria
   1. Noise Reduction Coefficient (NRC) per ASTM C423 (E-400 mounting)
      1. 0.70
   2. Light Reflectance (LR) per ASTM E1477
      1. 0.82
   3. Ceiling Attenuation Class (CAC) per ASTM E1414
      1. 30 [2x2 Cashmere High NRC]
      2. 32 [2x4 Cashmere High NRC]
   4. Humidity Resistance
      1. Warranted to withstand relative humidity of up to 90% at 104ºF without sagging, warping or delaminating for 10-years
   5. Flame Spread Classification per ASTM E84: Class A
5. Independent Environmental Certifications
   1. VOC content
      1. Third-party certification of compliance
         1. Per *California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010*
   2. 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*
   3. Rapidly Renewable content
      1. Third-party verified Type I Environmental Label
         1. Per ISO 14024 *Environmental Labels and Declarations - Type I Environmental Labeling - Principles and Procedures*
   4. 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*
   5. Health Product Declaration
      1. Per Health Product Declaration Standard v1.0
         1. hpdcollaborative.org

2.3 SUSPENSION SYSTEM

1. Manufacturer: CertainTeed Ceilings
2. Product
3. Name: [15/16” Classic Stab, 15/16” Classic Aluminum Capped Stab, 15/16” Classic Hook, 15/16” Classic Aluminum Capped Hook, 15/16” Classic Environmental Stab, 9/16” Elite Narrow Stab, 9/16” Smoothline Bolt Slot]
4. Physical Characteristics
5. Structural Classification: [Intermediate Duty, Heavy Duty] (per ASTM C635)
6. Double web design manufactured of hot-dipped galvanized steel
7. Flange Size:
   1. 15/16”
   2. 9/16”
8. Color: White
9. Components
10. Main Runners
    1. Size: 12’
11. Cross Tees
    1. Size: [8’, 5’, 4’, 2’, 1’]
12. Edge Molding
    1. Type: [angle, shadow-line]
    2. Profile: As selected by the Architect
13. Attachment Devices: Anchors sufficient for five-times design load indicated in ASTM C635 (Table 1). Wire for hangers of size and type to suit intended application, complying with ASTM C641, Class 1 zinc coating, not less than 12 gauge
    1. Seismic Restraints: Pursuant to CISCA recommendations, ASTM E580 and local code requirements
    2. ICC-ES Evaluation Service Report (ESR-3336)

a. Suspended Ceilings Framing Systems and Seismic Perimeter Clip

* 1. City of Los Angeles Research Report (RR 25978)

a. Suspended Ceilings Framing Systems and Seismic Perimeter Clip

## 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
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**