**Product Name:** Ecophon Akusto™ One SQ

**Manufacturer:** CertainTeed Ceilings

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# SECTION 09 83 19 - ACOUSTIC WALL PANELS

## 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 A446 – *Specification for Steel Sheet, Zinc-Coated (galvanized) by the Hot Dip Process, Structural (physical) Quality*
7. ASTM A641 - *Specification for Steel Sheet, Zinc-Coated (galvanized) Carbon Steel Wire*
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. DIN 5036 – *Radiometric and Photometric Properties of Materials*
20. ISO 4611 – *Plastic – Determination of the Effects of Exposure to Damp, Heat, Water Spray and Salt Mist*
21. ISO 11654 – *Sound Absorbers for Use in Buildings – Rating of Sound Absorption*
22. ISO 14025 - *Environmental Labels and Declarations -- Type III Environmental Declarations -- Principles and Procedures*
23. ISO 14644 – *Classification of Air Cleanliness*
24. CISCA (Ceilings & Interior Systems Construction Association) – *Ceilings Systems Handbook*
25. CISCA (Ceilings & Interior Systems Construction Association) – *Acoustical Ceilings – Use and Practice*
26. CISCA (Ceilings & Interior Systems Construction Association) – *Guidelines For Seismic Restraint Direct Hung Suspended Ceiling Assemblies*
27. Danish Society of Indoor Climate – *Indoor Climate Label*
28. Nordic Council of Ministers – *Nordic Swan Eco-label*
29. Swedish Asthma & Allergy Association
30. Building Information Foundation RTS – *Emission Classification of Building Materials*
31. California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010
32. French VOC Label - Émissions dans l'air intérieur
	1. SUBMITTALS
33. Product Data
34. Submit manufacturer’s published technical information for each product indicated
35. Shop Drawings
36. 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
37. Samples
38. Submit manufacturer’s sample of free-hanging element indicated
39. Submit representative manufacturer’s sample of each suspension member indicated
40. 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 wall element
	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. Class A per ASTM E1264
10. Flame spread of 25 or less per ASTM E84
11. Smoke developed of 50 or less per ASTM E84
	1. DELIVERY, STORAGE AND HANDLING
12. Delivery of acoustic free-hanging element 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 elements only in conditions that are within the manufacturer’s published limits for temperature and humidity
	1. COORDINATION
17. Coordinate the installation of the acoustic free-hanging elements with any and all trades whose work is impacted by that installation
	1. EXTRA MATERIALS
18. Provide extra materials in the manufacturer’s unopened packaging, with the manufacturer’s label intact, as detailed below
19. Acoustic free-hanging elements – Minimum 5% of each type installed
20. 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. Acoustic wall panel (ACP) – Type 1
2. Name: Ecophon Akusto One SQ [Square, Rectangle, Circle, Pentagon, Ellipse, Hexagon, Heptagon, Octagon, Triangle]
3. Physical Characteristics
	1. Rectangular panel with two finished surfaces and fully painted edges
	2. Type (per ASTM E1264): XII
	3. Form (per ASTM E1264): 2
	4. Pattern (per ASTM E1264):
		1. G
			1. Akutex FT finish
		2. E
			1. Texona finish
	5. Size:
		1. Square: 600 x 600 mm
		2. Rectangles:
			1. 600 x 1200 mm
			2. 300 x 1200 mm
		3. Circles:
			1. 600 mm diameter
			2. 800 mm diameter
			3. 1200 mm diameter
	6. Thickness: 40 mm
	7. Edges: square and fully painted
		1. White
		2. Grey
	8. Panel back: glasswool tissue
	9. Finished Surface:
		1. Akutex FT
			1. [White, Volcanic Ash, Silver Stone, Silk Slate, Summer Breeze, Silent Steam, Ocean Storm, Moonlight Sky, Golden Field, Sunset Heat, Ruby Rock, Dark Diamond, Morning Drizzle, Cloudy Day, Pale Pearl, Highland Fog]
		2. Texona
			1. [Acai, Cranberry, Ginger, Garlic, Licorice, Mustard, Menthol, Oyster, Pepper, Poppyseed, Sea Salt, Tangerine, Thyme]
	10. Core Composition: Glasswool
	11. Recycled Content: 71%
		1. 1% (pre-consumer)
		2. 70% (post-consumer)
4. Performance Criteria
	1. Noise Reduction Coefficient (NRC) per ASTM C423
		1. 0.95 (E-55 mounting)
	2. Light Reflectance (LR) per ASTM E1477
		1. Akutex FT: .85 to .04 (dependent upon color)
		2. Texona: 0.81 to 0.5 (dependent upon color)
	3. Humidity Resistance per ISO 4611
		1. 95% at 104ºF
5. Independent Certifications and Recommendations
	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. 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*
	3. Indoor Climate Label (highest class for ceiling panels)
		1. Danish Society of Indoor Climate
	4. Nordic Swan Eco-label
		1. Nordic Council of Ministers
	5. Recommended by Swedish Asthma and Allergy Association
	6. M1 emission classification
		1. Building Information Foundation RTS – Emission Classification of Building Materials
	7. French VOC Label
		1. Émissions dans l'air intérieur

2.3 SUSPENSION SYSTEM

1. Product
2. Name: Ecophon Akusto One direct mounting systems
3. Connect One Absorber Anchor fixing
	1. Components
		1. Connect Absorber Anchors
		2. Connect One wall distance bracket
4. Connect One Hook fixing
	1. Components
		1. Connect One hook fixing bracket

## 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 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. 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

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