SECTION 09510

COMPOSITE CORE ACOUSTICAL PANEL CEILINGS

Techstyle Wood - Lay-In product

\*\* NOTE TO SPECIFIER \*\* Hunter Douglas fabric-faced, composite core suspended acoustical ceiling panels.

.

This section is based on the products of Hunter Douglas Architectural Products, which is located at:

One Duette Way

Broomfield, CO 80020

Tel: 866-556-1235

Fax: 303-876-3250

www.hdtechstyle.com

.

From the company that revolutionized the window coverings industry and pioneered metal suspended ceilings worldwide, TechStyle Acoustical Ceilings by Hunter Douglas represent a new approach to suspended ceilings. TechStyle panels are a blend of over four decades of commercial ceiling expertise and precision textile engineering.

.

SECTION 09513 - COMPOSITE CORE ACOUSTICAL PANEL CEILINGS, Copyright 2002, ARCAT, Inc.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Nonwoven-faced, composite core acoustical panels

\*\* NOTE TO SPECIFIER \*\* Delete paragraph below if ceiling grid is not specified in this section.

* + 1. Suspended metal grid ceiling system
    2. Trim and miscellaneous accessories
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

\*\* NOTE TO SPECIFIER \*\* Delete paragraph below if suspension system is specified in this section.

* + 1. Section 09510 - Acoustical Ceilings: Suspension system for acoustical panels specified in this section
    2. Section 13851 - Fire Alarm System -- Protected Premises: Fire alarm components located in ceiling
    3. Section 13925 - Fire Suppression Sprinklers: Sprinkler heads in ceiling
    4. Section 15850 - Air Outlets and Inlets - Air diffusers and returns in ceiling
    5. Section 16510 - Interior Luminaires - Light fixtures in ceiling
    6. Section 16821 - Public Address and Music Equipment: Speakers in ceiling
  1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM C 423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method; 2000
    2. ASTM C 635 - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings; 2000
    3. ASTM C 636 - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels; 1996
    4. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2000a
    5. ASTM E 580 - Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Requiring Seismic Restraint; 2000
    6. ASTM E 1477 - Standard Test Method for Luminance Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers; 1998a

G. ASTM C 1338 – Standard Test Method for Fungal Resistance

* + 1. CISCA (AC) - Acoustical Ceilings: Use and Practice; Ceilings & Interior Systems Construction Association; 1999
  1. SUBMITTALS
     1. Submit under provisions of Section 01300
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations
        2. Storage and handling requirements and recommendations
        3. Installation methods
     3. Verification Samples: Two samples, minimum size 7 by 7 inches (100 x 175 mm), representing actual acoustical panel product

\*\* NOTE TO SPECIFIER \*\* Delete paragraph below if suspension system is not specified in this section.

* + 1. Verification Samples: Two samples, minimum 12 inches (300 mm) long, representing actual suspension system
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver products in manufacturer's unopened packaging and store unopened in fully enclosed space until ready for installation. Protect products from exposure to sunlight, moisture, and mechanical damage
     2. Handle acoustical panels to avoid soiling exposed surfaces or damaging surfaces and edges
  2. PROJECT CONDITIONS
     1. Sequence work to ensure that acoustical ceilings are not installed until building is enclosed, permanent heating system is available, dust generating activities have terminated, wet work is complete and dry, and work above ceilings is complete
     2. Maintain temperature within 15 degrees Fahrenheit (8 degrees C) and relative humidity within 10 percent of design conditions for spaces of installation not less than 48 hours before installation begins and thereafter
  3. WARRANTY
     1. See Section 01780 - Closeout Submittals, for additional warranty requirements
     2. Provide acoustical panel manufacturer's standard written ten-year limited warranty
  4. EXTRA MATERIALS
     1. See Section 01600 - Product Requirements, for additional provisions
     2. Provide not less than \_\_\_\_\_\_ sq. ft. (\_\_\_ sq m) of acoustical ceiling panels of each panel size for Owner's use in maintenance of the project

1. PRODUCTS
   1. MANUFACTURERS
      1. Acceptable Manufacturer of Acoustical Panels: CertainTeed Architectural; 11500 East 53rd Ave. Unit D, Denver, CO 80239. Tel: 866-556-1235; Fax: 720-872-7850; [www.certainteed.com/Architectural](http://www.certainteed.com/Architectural)

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions:
       1. Substitutions: Not permitted.
       2. Requests for substitutions may be considered in accordance with provisions of Section 01600
  1. ACOUSTICAL PANELS
     1. Provide panels comprising composite structural fiberglass core with printed non-woven polyester surface wrapped on two opposite edges and exposed edges on the other two sides; with properties as follows:

\*\* NOTE TO SPECIFIER \*\* Make choice from paragraphs below for panel size, and delete the other panel size paragraphs.

* + - 1. Panel Thickness: 1.125 inches (28.5 mm).
      2. Panel Size:
         1. Panel Size: 24 x 6 inches
         2. Panel Size: 24 x 24 inches (610 x 610 mm).
         3. Panel Size: 24 x 48 inches (610 x 1220 mm).
         4. Panel Size: 24 x 60 inches
         5. Panel Size: 24 x 72 inches
         6. Panel Size: 24 x 96 inches
         7. Panel Size: 24 x 144 inches
         8. Panel Size: 30 x 6 inches
         9. Panel Size: 30 x 24 inches
         10. Panel Size: 30 x 30 inches
         11. Panel Size: 30 x 48 inches
         12. Panel Size: 30 x 60 inches
         13. Panel Size: 30 x 72 inches
         14. Panel Size: 30 x 96 inches
         15. Panel Size: 30 x 144 inches
         16. Panel Size: 48 x 6 inches
         17. Panel Size: 48 x 24 inches
         18. Panel Size: 48 x 48 inches (1220 x 1220 mm).
         19. Panel Size: 48 x 60 inches
         20. Panel Size: 48 x 72 inches
         21. Panel Size: 48 x 96 inches
         22. CUSTOM Panel Size: \_\_\_\_\_\_\_\_\_\_\_\_ (max width 48” x max length 96”)
      3. Panel Color:
         1. Standard Color # (see [www.certainteed.com/Architectural](http://www.certainteed.com/Architectural) in Techstyle Wood section)
         2. Custom Color #
      4. Noise Reduction Coefficient (NRC): 0.85, measured in accordance with ASTM C 423 with the equal to or better than absorption coefficient reading at the following specified frequencies: Frequency: 125 250 500 1000 2000 5000 Absorp Co-ef 0.61 0.82 0.65 0.88 1.04 1.03
      5. Surface Burning Characteristics: Flame spread less than 25 and smoke developed less than 50, Class A (1), per ASTM E 84 and ASTM E 1264
      6. Light Reflectance (white only): n.a.
      7. Moisture Resistance: Resistant to relative humidity up to 95 percent at 105 degrees F (40.5 degrees C) for 30 days
      8. Mold and Mildew Resistant: In accordance with requirements of ASTM C 665
      9. Fungi Resistant: In accordance with requirements of ASTM C 1338

B. Accessibility: Panels shall be downward accessible by disengaging hinge support rail on one side of panel from the T-bar flange without the use of tools. Panel shall swing hinge downward to provide complete access without removal of the panel from the ceiling

* 1. SUSPENSION SYSTEM

\*\* NOTE TO SPECIFIER \*\* Delete two of the following three paragraphs; coordinate with requirements shown on drawings or specified in other sections.

* + 1. Manufacturer: CertainTeed Architectural Ceilings
    2. Product:

1. 15/16” EZ Stab System
   * 1. General: Use existing suspension system, modified as indicated on drawings
     2. General: Provide system complying with ASTM C 635, die cut and interlocking components, with matching perimeter moldings and other accessories as required for project conditions.
        1. Materials: Formed galvanized steel, commercial quality cold rolled, intermediate duty.
        2. Profile: Standard 15/16 in (24 mm) tee shape.
        3. Finish: Painted white or (\_\_\_\_\_\_\_\_\_).
     3. Optional Trim: Provide matching trim by acoustical panel manufacturer for conditions as follows:
        1. Perimeter trim: ‘L’ channel 15/16” – white, black or custom color
        2. Reveal Trim (WT1): ‘C’ Channel with 1/8” reveal to the wall – white, black or custom color
        3. Transition trim from drywall to acoustical panel ceiling
        4. Curved transition trim from drywall to acoustical panel ceiling
        5. Floating edge trim: 2-7/8” (FT2) Straight – white, black or custom color
        6. Floating edge trim: 3” (FT3) Straight – white, black or custom color
        7. Floating edge trim: 4” (FT4) Straight – white, black or custom color
        8. Floating edge trim: 6” (FT6) Straight – white, black or custom color
        9. Floating edge trim: 8” (FT8) Straight – white, black or custom color
        10. Floating edge blade trim: 2-7/8” (FT2A) Straight – white, black or custom color
        11. Curved edge for acoustical panel ceiling, for floating effect. – white, black or custom color
     4. Support Channels and Hangers: Galvanized steel, size and type to suit application
2. EXECUTION
   1. EXAMINATION
      1. Verify that layout of hangers will not interfere with other work; make adjustments in layout as necessary
      2. Do not begin ceiling installation until services above ceiling are complete except for final trim
      3. Notify Architect of unsatisfactory conditions before proceeding
   2. PREPARATION
      1. Lay out system to a balanced grid design, with edge units not less than 50 percent of acoustical unit size
      2. Locate system on room axis according to reflected ceiling plan
   3. INSTALLATION OF SUSPENSION SYSTEM
      1. Install in accordance with requirements of Section 09510

\*\* NOTE TO SPECIFIER \*\* Delete paragraph above if suspension system is specified in this section.

* + 1. Conform to the requirements of CISCA (AC) - Acoustical Ceilings: Use and Practice
    2. Install in accordance with manufacturer's instructions and ASTM C 636

\*\* NOTE TO SPECIFIER \*\* Paragraph above is for normal situations; paragraph below is for areas that require seismic restraint.

* + 1. Install in accordance with manufacturer's instructions and ASTM E 580
    2. Attach hangers to structural members. Do not support ceilings directly from permanent metal forms or steel floor or roof deck

\*\* NOTE TO SPECIFIER \*\* Certain metal deck types are fabricated to accommodate ceiling hanger tabs. Do not include this paragraph if tabs are an acceptable method of attachment.

* + 1. Space hangers not more than 48 inches (1220 mm) o.c in both directions
    2. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members
    3. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance
    4. Support fixture loads using supplementary hangers located within 6 inches (150 mm) of each corner, or support components independently. Do not eccentrically load system or induce rotation of runners
    5. Perimeter Trim: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions
  1. INSTALLATION OF ACOUSTICAL PANELS
     1. Install acoustical panels in accordance with manufacturer's written instructions
     2. Lay panels flat into the tee grid. Scribe and cut panels for accurate fit at perimeter and around penetrations
     3. Hold tile field in compression when performing cuts
     4. Install acoustical panels after above-ceiling work is complete. Install panels level, in uniform plane, and free from warp, twist, and dents
     5. Installation Tolerance: Maximum variation from flat and level surface is 1:360

\*\* NOTE TO SPECIFIER \*\* This is a typical commercial requirement. Delete this paragraph or edit for other circumstances.

* 1. CLEANING AND PROTECTION
     1. Clean exposed surfaces of acoustical panel ceilings, including suspension system and edge trim, complying with manufacturer's written instructions for cleaning of minor finish damage. Replace acoustical panels that cannot be cleaned to an appearance matching unmarred panels
     2. Protect installed acoustical panel ceilings until completion of project

END OF SECTION