

THIS SECTION IS BASED ON ROCKFON'S "PLANOSTILE™" LAY-IN METAL CEILING PANELS.

Though Rockfon Planostile™ Lay-In Metal Ceiling Panels are meant for interior applications only.

Contact Rockfon for guidelines specifically applicable to other uses of Rockfon Planostile™ Lay-In Metal Ceiling Panels products.

## GENERAL

### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. Section Includes: Provide suspended ceiling acoustical ceiling panels including but not limited to:
  - 1. Panel Metal Ceiling System.
- B. Related Sections:
  - 1. Section 09 52 23, Metal Acoustical Ceiling Suspension Assemblies.
  - 2. Section 09 54 00, Specialty Ceilings.
  - 3. Section 09 58 00, Integrated Ceiling Assemblies.
  - 4. Section 01 81 13, Sustainable Design Requirements
  - 5. Section 01 81 19, Indoor Air Quality Requirements
  - 6. Section 13 48 00, Sound, Vibration, and Seismic Control.
  - 7. Section 26 50 00, Lighting.

### 1.3 REFERENCES

- A. Abbreviations and Acronyms:
  - 1. ASTM: American Society for Testing and Materials
  - 2. CISCA: Ceilings & Interior Systems Construction Association; [www.cisca.org](http://www.cisca.org).
  - 3. IBC: International Building Code
  - 4. ASCE 7 American Society of Civil Engineers, Minimum Design Loads for Buildings and Other Structures
  - 5. ICCES: International Code Council-Evaluation Services - AC 156 Acceptance Criteria for Seismic Qualification Testing of Non-structural Components
  - 6. ICCES: International Code Council-Evaluation Services Report - ESR 2631 Rockfon Chicago Metallic Corporation Suspended Ceiling Framing Systems and Suspension Ceiling Systems
  - 7. California Department of Public Health CDPH/EHLB Emission Standard Method Version 1.1 2010
  - 8. LEED - Leadership in Energy and Environmental Design is a set of rating systems for the design, construction, operation, and maintenance of green buildings

9. International Well Building Standard
10. Mindful Materials
11. Living Building Challenge

**B. Reference Standards:**

1. ASTM A1008 - Standard Specification for Steel, Sheet, Cold Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability
2. ASTM A641 - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire
3. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process
4. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
5. ASTM C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
6. ASTM C635/C635M - Standard Specification for Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings
7. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels
8. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials
9. ASTM E580 - Installation of Metal Suspension Systems in Areas Requiring Moderate Seismic Restraint
10. ASTM E1111/E1111M - Standard Test Method for Measuring the Interzone Attenuation of Open Office Components
11. ASTM E1414/E1414M - Standard Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum
12. ASTM E1264 - Classification for Acoustical Ceiling Products

#### **1.4 ADMINISTRATIVE REQUIREMENTS**

- A. Pre-Installation Meetings: Conduct meeting at Project site. Agenda includes Project conditions, coordination with work of other trades and layout of items which penetrate ceilings.

#### **1.5 SUBMITTALS**

- A. Product Data: Submit manufacturer's Product data, including suspension system and maintenance data.
- B. Samples: Submit samples of specified ceiling panels.
- C. Show Drawings: Necessary technical drawings and documents that pertain to the layout of the acoustical metal ceiling.
- D. Certifications: Acoustical metal ceiling product's certifications that confirm compliance with applicable tests and standards. Acoustical metal ceiling products must also contain information pertaining to certification for NRC.

**1.6 MAINTENANCE MATERIAL SUBMITTALS**

- A. Supply additional material (full-size ceiling panels) equal to [ ] of ceiling area. Additional material should match Products installed and have the appropriate labels and identification.
- B. Supply extra materials that match Products installed and are packaged with protective covering for storage and identified with labels describing contents.

**1.7 QUALITY ASSURANCE**

- A. Single-Source Responsibility: Provide acoustical panel units and grid components by a single manufacturer.
- B. Coordination of Work: Coordination between installers and other related professions in reference to acoustical ceiling work can include electrical fixtures and systems, fire safety systems, gypsum and building construction.

**1.8 DELIVERY, STORAGE, AND HANDLING**

- A. Protect system components from excessive moisture in shipment, storage, and handling. Deliver in unopened bundles and store in a dry place with adequate air circulation.

**1.9 WARRANTY**

- A. Manufacturer Warranty: Submit a written warranty executed by manufacturer for a period of 1 year from date for metal ceilings, of Substantial Completion, agreeing to repair or replace suspension system components that fail or are compromised within the specified warranty period. Failed or compromised parts can include, but are not limited to:
  - 1. Rusting or defects directly made by the manufacturer.
  - 2. Sagging or warping directly made by the manufacturer.

**PART 2 - PRODUCTS****2.01 Manufacturer**

- A. Metal Ceiling Systems:
  - 1. Rockfon, 4849 South Austin Avenue, Chicago, IL 60638. 1-800-323-7164; [www.rockfon.com](http://www.rockfon.com).
- B. Suspension Systems:
  - 1. Rockfon, 4849 South Austin Avenue, Chicago, IL 60638. 1-800-323-7164; [www.rockfon.com](http://www.rockfon.com).
- C. Aluminum Perimeter Trim:
  - 1. Rockfon, 4849 South Austin Avenue, Chicago, IL 60638. 1-800-323-7164; [www.rockfon.com](http://www.rockfon.com).

**2.02 MATERIALS**

- A. Acoustical Metal Panels: Panel Metal Ceiling System, "PLANOSTILE™" LAY-IN METAL CEILING PANELS" by Rockfon with following characteristics:
  - 1. Surface: Smooth

2. Composition: Metal
  3. Material: [0.032" Aluminum] [.024" Steel]
  4. Edges: [SQ] [REVEAL] [FLUSH REVEAL]
  5. Color:
  6. Perforation Option:
  7. NRC:
  8. Fire Class: Class A.
  9. Light Reflectance:
  10. Recycled Content: up to 85%
- B. Panels and Accessories:
1. Lay-in metal panels:
    - a. Panels shall measure (24 in. by 24 in.) (24 in. by 48 in.) (20 in. by 60 in.) (24 in. by 60 in.) (12 in. by 48 in.) (\_\_\_\_\_) with (square) (reveal) (Flush reveal) lay-in edge detail.
    - b. Manufactured from [(0.024 in. electrogalvanized steel) (0.032 in. aluminum)] [(solid) (perforated with ROCKFON pattern [ ])].
    - c. Panels shall be (painted with a baked powder coat finish) ( ).
    - d. Panels shall be finished with manufactured MetalWood™ finish ( ).
  2. Insulation:
    - a. Poly-encased insulation pads, of (1) (1-1/2) thickness and a density of (1), (1 1/2) pcf. In size to match panels.
  3. Wall Channels and hold-down inserts:
    - a. Wall channels are formed from 0.020 inch (electro-galvanized steel) or 0.024 (aluminum) and manufactured to a C-shape, with a 3/4 inch top leg by 1-9/16 I.D. and 15/16 inch bottom leg. Length is 120". Finished identical to main tees and cross tees. Hold-Down Inserts are manufactured from the same material as wall channels and formed in a C-shape with 3/4 inch legs with 1 1/2 inch I.D. by (11 inch) (22 inch) length. Finish shall be supplied by manufacturer.
  4. Wall Angle:
    - a. (1 inch wide x 2 inches high x 120 inches long) (7/8 inch wide by 7/8 inch high x 144 inches long) (15/16" x 3/4") finished identical to main tees and cross tees.
  5. Rockfon Infinity™ Perimeter Trim: Made from extruded aluminum [(2)(4)(6)(8)(10)(12)] inches deep. Painted on all sides [(to match main tees and cross tees) (Other painted color \_\_\_\_\_)]. Panels to be (straight)(curved) as indicated on reflected ceiling plans.
  6. Rockfon Infinity™ Z Razor Edge Trim, with 6" horizontal Flange, manufactured from extruded aluminum, finished identical to main tees and cross tees.
  7. Rockfon Infinity™R Perimeter trim, with 11/16" reveal, made from extruded aluminum, finished identical to main tees and cross tees
  8. Seismic Perimeter Clips
    - a. Manufactured from commercial quality steel with gold finish sized to fit 1-1/2 inch high ceiling grid components and clip to minimum (7/8)(15/16)(2) inch wide wall angle support with minimum (3/8)(3/4) inch clearance at perimeter walls and ceiling penetrations per IBC 2006 seismic Design Category (C)(D, E, F).
- C. Suspension System
1. Chicago Metallic Intermediate duty or heavy duty non-rated double web suspension (1200 system with 15/16 inch exposed face) (4000 system with 9/16 inch exposed face) (4200 system with 9/16 inch exposed face) (4500 system with 9/16 inch wide by 5/16 inch deep face with 1/4 inch wide opening) (4600 system with 9/16 inch wide by 5/16 inch deep face with 1/8 inch wide opening). System consists of main tees and cross tees to create (24 inch by 24 inch) (24 inch by 48 inch) (20 inch by 60 inch) (\_\_\_\_\_) modules as manufactured by ROCKFON.

2. Suspension exposed face shall be [(coated with factory applied baked-on enamel paint) (Custom Color \_\_\_\_\_)] [painted color coordinated for woodgrain panel finish].
- D. Acoustical Material
1. Acoutex acoustical non-woven fiber factory adhered to back of perforated panels with 0.70 NRC.
  2. Blanket type black vinyl faced one side (1) (11/2) inches thick by (1) (11/2) pounds per cubic foot density with [0.80][0.90] NRC

## EXECUTION

### 1.10 EXAMINATION

- A. Examine suspension assemblies, with installer present, for compliance with requirements specified in this and other Sections affecting ceiling panel installation and with requirements for installation tolerances and other conditions affecting performance of acoustic ceiling assemblies.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 1.11 INSTALLATION

- A. Install ceiling panels to comply with ASTM C636/C636M, ASTM E580, and seismic design requirements indicated, according to manufacturer's written instructions and CISCA's "Ceiling Systems Handbook.
- B. Metal panels supported by an appropriately installed Chicago Metallic (15/16))(9/16)) grid system as manufactured by ROCKFON.
- C. If required, insulation pads shall be laid upon the back of the panels.
- D. If necessary, utilize ROCKFON hold down clips to keep the insulation pads in place.
- E. Perimeter Treatment:
  1. Perimeter treatment: Install channel or wall angle on vertical surfaces, intersecting suspension components, by appropriate method in accordance with industry accepted practice.
- F. Hold-down inserts install between the top leg of the wall channel and all metal panels.
- G. Additional Hanger Wires at locations where imposed loads could cause deflection exceeding 1/360 span.

### 1.12 REPAIR

- A. Remove damaged or compromised components; replace with undamaged components.

### 1.13 CLEANING

- A. Clean exposed surfaces in accordance with manufacturer's written instructions.

END OF SECTION