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

Though Rockfon Planostile™" Snap-In Metal Ceiling Panels are meant for interior and exterior applications, Specifications as shown here pertain to interior applications only.

Contact Rockfon for guidelines specifically applicable to exterior use of Rockfon Planostile™" Snap-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 21 16, Gypsum Board Ceilings.
2. Section 09 51 33.13, Acoustical Snap In Metal Pan Ceiling
3. Section 09 52 23, Metal Acoustical Ceiling Suspension Assemblies.
4. Section 09 54 00, Specialty Ceilings.
5. Section 09 58 00, Integrated Ceiling Assemblies.
6. Section 01 81 13, Sustainable Design Requirements
7. Section 13 48 00, Sound, Vibration, and Seismic Control.
8. 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.
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
6. Sound Absorption Coefficients by the Reverberation Room Method
7. ASTM C635/C635M - Standard Specification for Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings
8. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels
9. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials
10. ASTM E580 - Installation of Metal Suspension Systems in Areas Requiring Moderate Seismic Restraint
11. ASTM E1111/E1111M - Standard Test Method for Measuring the Interzone Attenuation of Open Office Components
12. ASTM E1414/E1414M - Standard Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum
13. 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.

B. Suspension Systems:
1. Rockfon, 4849 South Austin Avenue, Chicago, IL 60638. 1-800-323-7164; www.rockfon.com.

C. Aluminum Perimeter Trim:
1. Rockfon, 4849 South Austin Avenue, Chicago, IL 60638. 1-800-323-7164; www.rockfon.com.

## 2.02 MATERIALS

A. Acoustical Metal Panels: Panel Metal Ceiling System, “PLANOSTILE™” SNAP-IN METAL CEILING PANELS” by Rockfon with following characteristics:

1. Surface: Smooth
2. Composition: Metal
3. Material: [0.032” Aluminum] [0.024 Steel]
4. Edges: [SQ] [BEVELED]
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. Rockfon Planostile Snap-In Metal Panels for interior applications
   a. Panels shall measure (24 in. x 24 in.), (24 in. x 48 in.), (20 in. x 60 in.) (24 in. x 60 in) (12” x 48”) with 90° upturned legs on all four sides. Panels shall be formed with (square)(bevel) edges.
   b. Panels formed from [(.032 in. aluminum)] (.024 in. electro-galvanized steel)]
   c. Panels shall be [(perforation pattern [ ] ) (unperforated)].
   d. Finish to be [painted with a baked enamel finish ( )].
   e. Panels shall be manufactured with MetalWood™ finish ( ). Grain direction to be perpendicular to direction of Snap-bar main tees.
2. Rockfon Planostile Snap-In Metal Panels for exterior soffits:
   a. Panels shall measure 24 in. x 24 in. with 90° upturned legs on all four sides. Panels shall be formed with (square)(bevel) edges.
   b. Panels formed from 0.032 in. aluminum, unperforated.
   c. Finish to be [painted with a baked enamel finish ( ) (Custom Color __)].
3. Insulation:
   a. Poly-encased insulation pads, of (1 in),(1-1/2 in) thickness and a density of (1#), (1 ½#) pcf.
4. Interior Wall Channel and Hold-Down Insert:
   a. Channel made from [(.020 in. electro-galvanized steel)(.024 Aluminum) in C-shape, with a 3/4 in. top leg, 2-1/2 in. I.D., and a 15/16 in. bottom leg. Length 120 in. Hold-Down Insert formed from same material as wall channel in a C-shape, with 3/4 in. legs, 2-7/16 in. I.D., (11)(22) in. long.
5. Exterior Wall Channel and Hold-Down Insert:
   a. Channel made from 0.024 in. aluminum in C-shape, with 3/4 in. top leg, 2-1/2 in. I.D., and 2 in. bottom leg. Hold-Down Insert is formed from same material as wall channel in C-shape, with 3/4 in. legs, 2-7/16 in. I.D., 22 in. long.
6. Rockfon Infinity™ Perimeter Trim: Made from extruded aluminum [(4)(6)(8)(10)(12)] inches deep. Painted [(to match main tees and cross tees) (Other painted color)
7. Interior panel access key provided to permit detachment of panels from the carrier.
8. Exterior panel access door assembly in same size and finish as panels. Four exposed fasteners lock to the suspension support angles.
9. Expansion Joints: Formed from 0.032 in. aluminum into a C-shape, with 1-3/4 in. top leg, 2-1/2 in. I.D., and 2 in. bottom leg. Top angle to be formed from same material with ½ in. vertical and 4 in. horizontal leg.
10. Interior Trim Kit for (24 in. x 24 in) (24 in. x 48 in.) Type G fluorescent light fixture including two variable placement 01 White cross tees and trim to match Planostile panels) (other color _____).
11. Bracing bracket at connection between structural bracing and Planostile suspension.

C. Suspension System
1. Main Tee MA010.500CH: Snap-bar formed into T-shape to receive the vertical flanges of Rockfon Planostile panels with tight panel interlock, alignment and adjacent panels level at the ceiling plane. Formed from 0.020 in. HDG steel.
2. Spacer Tee: Manufactured from [0.015 in.] [.010 in.] galvanized steel formed into T-shape (24) (48) (60) (___) in. long.
3. Panel Retention Clip 63.26.031 for UL Class 30 exterior soffits: Formed from 16 ga. galvanized steel wire into angled V shape to interlock four panel corners to Main Tee.
4. Brace Clip 63.26.032 for UL Class 30 exterior soffits: Manufactured from .040 in. galvanized steel for fastener attachment to suspension and bracing.
5. Structural bracing to meet requirements of UL Class 30 classification and specified project design requirements.

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. General:
1. For interior applications in non-seismic areas install in accordance with ASTM C636 (see 1.03, A 2.).
2. For interior applications in seismic areas install in accordance with (UBG 25-2 Standard) (IBC Section 1621) (ASTM E 580) (Code Compliance Research Report (CCR) – 0267).
3. For exterior soffit applications install in accordance with ASTM C636-04, UL580 Class 30

C. Suspension:
1. Rockfon Planostile Snap-Bar Main Tees: Install (24)(48)(60) in. O.C., by direct suspension from existing structure, with not less than 12 gage steel hanger wires spaced (48) in. O.C. along main tee length. Wrap hanger wires tightly 3 full turns at each end. (Brace against wind uplift as necessary to meet UL 580 Class 30).
2. Cross Tees: Install perpendicular to main tees 48 in. O.C.

D. Metal Panels:

1. Rockfon Planostile Snap-in Metal Panels: Install Metal Panel into Main Tee carrier ensuring embosses on vertical legs are fully engaged into Main Tee and panel edges are aligned.
2. If required, insulation pads shall be laid upon the back of the panels.
3. For Seismic and Exterior Soffit applications install wire retention clips through holes in panel vertical flanges, connecting four panel corners together and secure by tying wire clips across top of Snap-Bar Main Tee.

E. Perimeter Treatment:

1. Perimeter treatment: Install channel on vertical surfaces, intersecting suspension components, by appropriate method in accordance with industry accepted practice.
2. Hold-down inserts install between the top leg of the wall channel and all metal panels.
3. 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