

Planar Macro Linear Metal Ceiling System

MR-MANUFACTURER

Interfinish

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Interfinish is a division of the Chicago Metallic Corporation focused on Metal and Specialty Ceiling Systems. The wide variety of ceiling products includes linear metal, open cell, baffles, skylights, metal tiles and planks, and security systems.

Interfinish was created in 1994 as a result of the acquisition of Alcan Building Products' Ceiling Division. Interfinish is a combination of Chicago Metallic's long history and experience of over 100 years in manufacturing building products, and Alcan's proven metal ceiling systems. Chicago Metallic's dedication and commitment to excellence extends to Interfinish with a strong focus on design innovation, quality and service.

Interfinish has local sales representatives located all across the country to promptly respond to your project needs, providing you with the extra effort and technical expertise that will help your project run more smoothly from start to finish.

PP-PRODUCT PRESENTATION

Planar Macro emphasizes the linear metal look with deep profile, square edge panels. These bold ceiling panels are designed for areas that require a stronger, and more durable linear metal system capable of withstanding imposed stresses.

Various panel profiles, metal thicknesses, finishes, and lengths allow for unlimited design flexibility. The wide range of finishes includes unlimited painted colors, brights and brushed finishes.

Lighting fixtures, air handling components, acoustical blankets, beam splices, filler strips and end caps are all specially designed to allow for a fully integrated system. Planar Macro is designed to meet the most demanding area requirements. This system provides attractive linear landscapes without sacrificing creative ceiling design.

TS-TECHNICAL SUPPORT

Specification Guidelines

Planar Macro Linear Metal Ceiling System

Section 09500 - Acoustical Treatment

PART 1 - GENERAL

1.01 Scope

- A. Furnish and install the Planar Macro Linear Metal Ceiling System as manufactured and supplied by Interfinish, a division of the Chicago Metallic Corporation.

1.02 Related Sections

- A. Section 09120 Ceiling Suspension Systems
- B. Section 09130 Acoustical Suspension Systems
- C. Section 09545 Special Ceiling Surfaces
- D. Section 13020 Integrated Assemblies
- E. Section 13080 Sound, Vibration, and Seismic Control
- F. Section 15550 Heating, Ventilating, and Air Conditioning
- G. Section 16500 Lighting

1.03 References

- A. American Society for Testing and Materials (ASTM)
 - 1. C-423 - Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
 - 2. C-635 - Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
 - 3. C-636 - Standard Recommended Practice for Installation of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
 - 4. E-84 - Test Method for Surface Burning Characteristics of Building Materials.
 - 5. E-580 - Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels in Areas Requiring Seismic Restraint.
 - 6. E-795 - Practices for Mounting Test Specimens During Sound Absorption Tests.

1.04 Submittals

- A. Product/Technical Literature
 - 1. Submit descriptive literature along with installation recommendations and practices as illustrated in Interfinish literature.
- B. Samples
 - 1. Submit Interfinish sample kit containing appropriate Planar Macro Linear Metal Ceiling samples.
- C. Shop Drawings
 - 1. Submit shop drawings illustrating appropriate placement and installation of the Planar Macro Linear Metal Ceiling System.
- D. Certification
 - 1. Furnish certification of materials and system conforming to specification requirements.
 - 2. Provide written warranty against defective workmanship and materials for a period of ___ year(s) (up to 20 yrs. maximum) from filing notice of completion.

1.05 Project Conditions

- A. Environmental Requirements
 - 1. Verify that the area in which the Planar Macro Linear Metal Ceiling System is to be installed is weathertight and dry.
 - 2. Installation shall occur only when temperature and humidity conditions closely approximate interior conditions that will exist when area is complete and occupied.
- B. Trade Requirements
 - 1. Heating or cooling systems shall be in operation in order to establish and maintain a suitable climate as referenced above prior to, during, and after installation.
 - 2. All wet trades work is to be dry and thoroughly complete prior to installation of the Planar Macro Linear Metal Ceiling System.

1.06 Maintenance

A. Replacement Material

1. Furnish additional material equal to ___% of the ceiling system area.

PART 2 - PRODUCTS

2.01 Manufacturer

- A. Planar Macro Linear Metal Ceiling System as manufactured by Interfinish, 4849 S Austin Ave, Chicago, IL 60638-1492.

2.02 Materials

A. Planar Linear Panels and Related Accessories

1. Planar Macro Linear Panels

- a. Planar Macro linear panels shall be of a deep profile, square-edge design. The panels shall be made available with either a baked polyester enamel, bright reflective, or brushed satin finish.
- b. The Planar Macro panels shall measure a nominal (2") (4") (6") (8") wide, .90" in height, and 12 ft. in length. Length variations are available within a range of 2 to 16 feet. The factory shall be consulted for the availability of lengths above and below this range.
- c. Planar Macro panels shall be manufactured from (.025) (.032) (.040) aluminum as dictated by installation conditions.
- d. The Planar Macro linear metal beams shall be perforated, when enhanced acoustical performance is desired, with the standard Interfinish perforation pattern for linear metal panels.

2. Filler Strips

- a. When required, filler strips shall be installed within or above the 3/4" gap existing between parallel beams providing an open reveal. The filler strips shall provide a recessed appearance.
- b. The filler strips shall be a nominal 3/4" wide x 12 ft. in length. The filler strips shall be manufactured from aluminum, and shall possess either a matching or contrasting finish. Unless specified, the filler strips shall be provided with a standard black baked-enamel finish.
- c. When air flow into the plenum area is desired, a lanced (slotted) filler strip shall be provided.
- d. Expansion filler strips shall be used with appropriate expansion suspension carriers (see below).

3. Panel Splices

- a. Where continuous runs of linear metal panels are required, Macro panel splices shall be used to join consecutive panels and shall be of a design which eliminates any noticeable gap between the panels.
- b. The Macro panel splice shall measure 6-1/2" in length and be of a profile and width appropriate for the panel. The splice shall be manufactured from .025 aluminum with a baked polyester enamel finish. The standard finish shall be black, and the availability of other finishes shall be as determined by Interfinish.

4. End Plugs

- a. The end plug shall be inserted into the open end of a parallel beam when angle or channel molding is not or cannot be used.
- b. The end plug shall be of sufficient and appropriate dimensions to fit into the open end of a linear panel. Appropriate styles of end plugs, based upon linear panel width and design, shall be made available.
- c. The end plug shall be manufactured from aluminum and shall be offered in a standard black finish, and the availability of other finishes shall be as determined by Interfinish.

5. Perimeter Trim
 - a. At the perimeter of the installation, utilize wall angle, channel mold, or edge trim when end caps are not or cannot be utilized.
 - b. Perimeter trims shall be offered in a variety of styles, dimensions, and types as stated in the Interfinish Planar product guide. The perimeter trim shall be manufactured from appropriate raw materials and shall possess a finish, when applicable, identical to that of the linear panel.
- B. Suspension System Components and Integrated Accessories
 1. Symmetrical Carrier
 - a. The symmetrical carrier shall be used to support the linear metal panels.
 - b. The symmetrical carrier shall be cold roll-formed from .040 aluminum coated with a black polyester enamel finish. The carrier shall be formed into an inverted U-shape and measure 12 ft. in length.
 - c. Carrier tabs, to which the linear panels will attach, shall be integral to the carrier and shall protrude from each of its legs. For interior applications, a version of the symmetrical carrier, on which the tabs alternate from leg-to-leg, may be substituted. The standard increment for tab spacing shall be 2".
 - d. Holes shall be punched into the spine of the carrier in order to permit direct attachment to overhead structures when appropriate.
 - e. The symmetrical carrier shall be slotted at appropriate intervals in order to receive stabilizing components as described below.
 2. Stabilizer Bars
 - a. Stabilizer bars shall be utilized to increase the rigidity of the suspension system layout, as well as to permit easy alignment of the symmetrical carriers.
 - b. The stabilizer bars shall be stamped from aluminum into an inverted-T shape, and measuring a nominal (36") (50") in length. The stabilizer bars shall be offered with a black polyester enamel finish.
 3. Radius Carrier
 - a. The radius carrier shall be utilized when attachment of linear panels to a convex or concave arc is required.
 - b. The radius carrier shall be roll-formed to a U-shape from aluminum pre-painted with a black polyester enamel finish.
 - c. Each of the radius carrier's two legs shall consist of carrier tabs to which the linear metal panels will attach. The standard increment for carrier tab spacing shall be 4", for panels of nominal 4" and 8" width, and 2", for panels of nominal 2" and 6" width.
 4. Adapt-A-Grid Carrier
 - a. The Adapt-A-Grid carrier shall be utilized to convert a standard T-bar grid system to a linear metal system.
 - b. The Adapt-A-Grid carrier shall be stamped from aluminum and pre-painted with a black polyester enamel finish.
 - c. Carrier tabs, to which the linear panels will attach, shall be of a nominal 4" increment.
 - d. The renovation carrier shall lay upon the face of a standard T-bar component, and shall be held in place by means of a lay-in tile or similar item.
 5. Expansion Carriers
 - a. An expansion carrier shall be used when ceiling dimensions do not conform to standard 4" incremental carrier tab spacing. The tabs of the expansion carrier shall be located on 4-1/8" increments, increasing the width of each nominal 4" panel module by 1/8" so as to permit installation of a full panel at the perimeter of an installation.
 - b. Expansion carriers shall be used in conjunction with expansion filler strips, when required.
 6. Radial Carriers and Clips

- a. Radial carriers and clips shall be used to install linear metal panels in other than linear directions, i.e. perpendicular to suspension components. Radial carriers and clips shall attach to standard T-bar shapes and allow diagonal, radial, or special designs.
 - b. Radial carriers and clips shall accommodate all of the above-noted panel types, and shall require no additional fasteners for attachment to T-bar grid.
7. Macro Retainer Clips
- a. Macro retainer clips shall be used to secure the attachment of Macro linear panels to the suspension components.
 - b. Macro retainer clips install within the recess existing between panels at all points where the linear panel passes underneath a carrier component. The clips shall snap into the carrier components and cannot be used when filler strips are employed.
8. Acoustical Insulation
- a. Insulation shall be of a blanket-type, and faced on one side.
 - b. The insulation shall be offered in (1") (1-1/2") thickness with a density of (1) (1-1/2) pcf.
9. Macro Air Diffusion
- a. The Macro linear air distribution components shall have a 50" nominal length and range in width from 9" to 33" to utilize regressed open reveals between linear metal panels for air distribution.
 - b. An air entry collar, which will vary in size depending on the unit required, shall be top-mounted on each diffuser. Optional oval, side-entry inlet collars should be substituted for installations with limited plenum height.
 - c. The diffuser shall be offered with or without a collar-located air volume control damper depending on the installation requirements. The diffuser may be supplied with a remote control damper which allows for adjustment of the damper from below the ceiling plane by means of a control cable which extends through an air distribution slot.
 - d. The diffuser's air chamber shall be constructed of not less than .024 inch electro-galvanized steel and without longitudinal seams. The lower flanges of the chamber shall be provided with gasketing to prevent air leakage. Acoustical insulation shall be factory applied to all internal surfaces of the diffuser.
 - e. The diffuser shall be manufactured in such a manner so that neither physical nor aesthetic modifications to the ceiling system shall be necessary to properly mount the diffuser within the ceiling system.
 - f. The diffuser shall be supported by integral brackets which extend outward from the narrow side of the diffuser so that neither physical nor aesthetic modifications to the ceiling system shall be necessary to properly mount the diffuser within the ceiling system.
 - g. The diffuser shall be supplied with air pattern control vanes, which provide a means for directing the horizontal air flow. The vanes shall be manufactured to an L-shape from not less than .024 galvanized steel coated with a flat black finish. Clips, located at each end of the vane, shall be utilized to attach the vane to a leg of the linear metal panel.
 - h. Macro diffuser end seals of an appropriate size shall be installed upon the carrier components supporting each end of the diffuser so as to prevent air leakage.
10. Planalite Light Fixtures
- a. Planalite light fixtures shall provide fluorescent light from either a single lamp (nominal 4" wide fixture) or double lamp (nominal 8" wide fixture) design.
 - b. The fixtures shall be manufactured from cold-rolled electro-galvanized steel which is phosphatized for corrosion resistance. The inner areas of the fixture housing shall be painted with an oven-baked, non-yellowing, white polypowder finish. The exterior areas of the fixture housing shall be painted with an oven-baked, white polypowder finish with black trim.
 - c. All fixtures shall be pre-wired and shall possess a rapid-start, high power factor, 120 V/

60 HZ energy-savings ballast that is U.L. rated, Class "P" CBM-ETL certified, sound rated "A", and has coil and capacitor protection. Other ballast types, such as 277 V energy-savings and 0-degree, are to be offered optionally.

- d. Three types of lenses, in appropriate widths, shall be made available: 1.) a clear, K12 prismatic lens; 2.) a steel louver lens; and, 3.) a white opal, smooth acrylic lens with either round or square edges, as determined by linear panel selection.
11. Planaglo Light Fixtures
 - a. Planaglo light fixtures shall provide incandescent light from either a nominal (4") (8") square or round aperture.
 - b. A square Milligrove Baffle and Trim Ring shall be made available for fixtures with a square aperture, with a similar round version or a Clear Alzak Cone and Trim Ring made available for fixtures with a round aperture.
 12. Access Panels
 - a. When access into the plenum area of an interior installation is desired, an access panel shall be incorporated into the linear metal ceiling system. The panel shall be assembled from a kit provided by Interfinish, and shall provide either upward or downward access.

PART 3 - EXECUTION

3.01 Examination

- A. Examine area receiving system to identify conditions that will adversely affect installation. Do not begin installation until adverse conditions have been remedied.
- B. Verify completion of work above ceiling plane prior to installation.

3.02 Installation

A. Suspension System

1. Symmetrical carriers shall be suspended from 12 gauge wire attached to the existing substrate in an industry-approved manner. The hanger wire shall be affixed to all main carrier components with appropriate on center spacings as recommended by Interfinish. The main carrier components shall be installed 50" O.C., with consecutive components joined by means of the carrier splice.
2. Stabilizer bars shall be installed along the main carrier at intervals appropriate for the installation and as recommended by Interfinish. The stabilizer bars shall serve to keep the symmetrical carriers properly aligned in the horizontal plane.
3. Radius, Expansion, and Adapt-A-Grid carriers shall be used as needed and shall be installed as recommended by Interfinish.

B. Macro Panels and Related Accessories

1. The Macro panels shall be attached to the tabs that protrude from the carrier components.
2. Panel splices shall be utilized to join consecutive panels. The panels should be installed in such a way so that the resulting joint seams, formed when two consecutive beams butt together, are staggered in adjacent rows of panels.
3. Where the ends of the Macro Panels are visible, an end cap, wall angle, or J-molding shall be utilized to trim the exposed ends of the panels.
4. Install filler strips as needed to close the reveal existing between adjacent Macro panels.
5. When required, install access panels per Interfinish recommendations.
6. Install Macro Retainer Clips between adjacent Macro panels so as to comply with Seismic Zone installation requirements.

C. Integrated Accessories

1. Trim insulation in order to open the plenum side of the panels, between the carrier components.
2. Air diffusers shall be installed so that the lower, gasketed flanges rest on the plenum side

of the Macro panels and the units' support brackets rest on the flanges of the symmetrical carrier components. No special methods of attachment shall be necessary to mount and install the diffuser. The attachment of the air duct to the diffuser, the installation of the air pattern control vanes, and damper adjustments should be performed as recommended by Interfinish.

3. Light fixtures shall be installed as recommended by Interfinish.