

# **SecurLine Security Plank Ceiling System**

## **MR-MANUFACTURER**

### **Interfinish**

4849 S Austin Ave  
Chicago, IL 60638-1492  
U.S. Toll Free: 800-560-5758  
FAX: 800-560-5759

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**

SecurLine Security Plank Ceiling System addresses the durability, acoustic quality and tamper resistance issues critical to secure ceiling installations such as those needed in correctional institutions and high security facilities.

SecurLine consists of a series of strong, interlocking planks designed to be tamper resistant and restrict ceiling access. A choice of lengths, metal substrates and thicknesses allow for the perfect fit with your individual project requirements.

Perforated planks used with acoustical insulation reduces high noise levels resulting in a less stressful environment.

## **TS-TECHNICAL SUPPORT**

# **SecurLine Security Plank Ceiling System**

Section 09500 - Acoustical Treatment

## **PART 1 - GENERAL**

### **1.01 Scope**

- A. Furnish and install the SecurLine Security Plank 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

#### 1.03 References

- A. American Society for Testing and Materials
  - 1. A-361 - Specification for Steel Sheet, Galvanized by Hot Dip Process.
  - 2. B-209 - Specification for Aluminum and Aluminum Alloy Sheet and Plate.
  - 3. C-423 - Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
  - 4. C 635 - Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
  - 5. C 636 - Standard Recommended Practice for Installation of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
  - 6. D-523 - Test Method for Specular Gloss
  - 7. E-84 - Test Method for Surface Burning Characteristics of Building Materials.
  - 8. E-580 - Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels in Areas Requiring Seismic Restraint.
  - 9. 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 SecurLine Security Plank Ceiling System samples.
- C. Shop Drawings
  - 1. Submit shop drawings illustrating appropriate placement and installation of the SecurLine Security Plank 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 SecurLine Security Plank 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 SecurLine Security Plank 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. SecurLine Security Metal Ceiling System as manufactured by Interfinish, 4849 S Austin Ave, Chicago, IL 60638-1492.

### **2.02 Materials**

#### **A. SecurLine Security Plank Ceiling System Panels**

##### **1. SecurLine Panels**

- a. SecurLine panels shall be roll-formed, for dimensional stability, from (20 ga.) (18 ga.) (16 ga.) (14 ga.) (12 ga.) G-90 hot-dipped galvanized steel per ASTM A-361 or .040 aluminum per ASTM B-209.
- b. The metal from which SecurLine panels are formed shall receive a factory-applied baked enamel finish per ASTM D-523 that is applied to the metal prior to roll-forming. The finish shall be Interfinish -001 White, unless specified otherwise, with the metal receiving a .8 mil finish coat over a 0.2 prime coat.
- c. SecurLine panels shall be formed to a width of 12" and a maximum length of 16 feet. The actual length (span) of the SecurLine panels shall be limited based upon allowable uniform line loads as published in Interfinish literature. The allowable mid-span deflection of the SecurLine panels shall not exceed (L/180) (L/360).
- d. SecurLine panels shall measure 2-1/2" deep and shall be formed with a male and a female leg. Each leg shall interlock with the appropriate leg on adjacent panels for a tight, secure fit that resists separation of the panels at the seam where two panels abut.
- e. SecurLine panels shall be offered with or without perforations. The perforation pattern shall consist of .125" perforations on .325" staggered centers.

#### **B. Suspension and Perimeter Components**

##### **1. Ceiling Suspension Angles**

- a. The Ceiling Suspension Angles shall be formed from (16 ga.) (14 ga.) hot-dipped galvanized steel or .040 aluminum conforming to the same specifications as applied to the metal for the SecurLine panels. The finish shall be identical to that applied to the metal from which the SecurLine panels are formed.
- b. The Ceiling Suspension Angles shall be of an L-shaped design, with legs measuring 3" x 1-1/2". The Angles shall be formed to a maximum length of 10 ft.

##### **2. Perimeter Wall Channel and Hold-Down Insert**

- a. Perimeter Wall Channel shall measure 2" x 2-13/16" I.D. x 1" and shall be manufactured from (16 ga.) (14 ga.) hot-dipped galvanized steel or .040 aluminum conforming to the same specifications as applied to the metal for the SecurLine panels. The finish shall be identical to that applied to the metal from which the SecurLine panels are formed.
- b. Hold-down inserts shall be provided for insertion between the Perimeter Wall Channel and the SecurLine panel and will serve to tightly secure the panel to the channel. The inserts shall measure 1-3/4" x 2-5/8" I. D. x 3/4" with an 11" length and shall be manufactured from 18 ga. hot-dipped galvanized steel or .040 aluminum conforming to the same specifications as applied to the metal for the SecurLine panels. The finish shall be Interfinish -001 White.

##### **3. Perimeter Wall Angle**

- a. Perimeter Wall Angle shall be formed to an L-shaped design, with legs measuring 2" x 2" and shall be manufactured from (16 ga.) (14 ga.) hot-dipped galvanized steel or .040 aluminum conforming to the same specifications as applied to the metal from which the SecurLine panels are formed. The finish shall be identical to that applied to the metal from which the SecurLine panels are formed.

#### **C. Accessories**

1. Acoustical Insulation
  - a. The insulation shall be offered in (Clear) (Black) PVC-Wrapped Acoustical Pads. The acoustical pads shall be made available in a 1" x 1 pcf density and 2" x 1 pcf density, with other combinations available upon request. The acoustical pads shall measure 1' x 4', with other sizes available upon request.
2. Spacer Pads
  - a. Spacer pads, designed to create an airspace between the SecurLine panel and the insulation pad, shall be made available upon request.
3. Backer Panels
  - a. Backer panels, to be inserted into the SecurLine panels, shall be made available for STC purposes. The backer panels shall be roll-formed, for dimensional stability, to a U-shape design from metal of an appropriate type and gauge, or thickness.
4. Access Panels
  - a. Access panels shall be formed from (20 ga.) (18 ga.) (16 ga.) (14 ga.) (12 ga.) steel or .040 aluminum is coated with a finish that matches that applied to the metal used in the formation of the SecurLine panels.
  - b. The panel shall be formed to a nominal dimension of 24" x 24", with 1" upturned legs on all four sides. The panel shall be offered with or without perforations. If perforated, the pattern shall be identical to that supplied for the SecurLine panels.
5. Fasteners and Related Items
  - a. Security Fasteners shall be used to positively attach SecurLine Panels and Access Panels to the Suspension and Perimeter Components. The fasteners shall be #10 x 3/4" (for 20 and 18 gauge panels) and #12 x 3/4" (for 16, 14, and 12 gauge panels) with white-finished button-heads.
  - b. Corresponding drivers shall be made available for the security fasteners.

### **PART 3 - EXECUTION**

#### **3.01 Inspection and Preparation**

- A. Inspect area in which ceiling system is to be installed in order to identify any conditions that might adversely affect the installation of the ceiling system. Do not start work until adverse conditions have been corrected. Verify that all work performed by other trades above the ceiling system has been completed prior to installation.
- B. Field measure the area in which the ceiling system is to be installed and establish the layout in order to create appropriate borders and minimize out-of-square conditions.

#### **3.02 Installation**

##### **A. Perimeter Treatment**

1. Install perimeter wall channel or angle to walls with anchors every 12" along the length of the chosen perimeter treatment.
2. Mount panels to perimeter treatment, either channel or angle. When exposed fasteners are required, SecurLine panels are to be affixed to the perimeter treatment with security fasteners. From below, the fasteners should be affixed through the perimeter treatment into the SecurLine panel. The placement of the fasteners should occur 3" in from each edge of the panel.
3. When an unexposed fastening system is required, Hold-Down Inserts should be used in lieu of the security fasteners. In such instances, the hold-down insert is inserted between the top leg of the Wall Channel and the backside of each SecurLine panel at the perimeter of the installation.

##### **B. Suspension Components**

1. Span areas greater than the length of an individual SecurLine panel by creating an intermediate carrier assembly using Ceiling Suspension Angles.

2. To create an intermediate carrier, fasten two suspension angles back-to-back, with their horizontal flanges flush and their ends offset 12". The angles are then screwed together through their vertical stems with fasteners attached every 12" along the length of the carrier assembly.
3. Suspend intermediate carriers using 1-1/2" x 1-1/2" angle (of an appropriate gauge) affixed to the structure above, by appropriate methods, and to the carriers, at appropriate center spacing, along the length of the carrier assembly. When a continuous carrier run is required, splice consecutive carriers together by aligning and screw-attaching the offset ends of the carrier assemblies.
4. Lay the 12" wide edge of the SecurLine panels upon the horizontal flanges of the intermediate carrier and attach the panels to the intermediate carrier using security fasteners affixed through the face of the carrier into the panel 3" in from each edge of the panel.

C. Accessories

1. Install spacer pad, insulation, and backer panel, as required, into the SecurLine panel.
2. Mount access panels within a 24" x 24" framework created by ceiling suspension assemblies, i.e. back-to-back suspension angles (described above). Fasten the access panel to the framework using security fasteners attached through the face of the ceiling suspension assemblies into the access panel. The fasteners should be located at each corner of the access panel and 6" O.C., along each side, in between.

3.03 Repair and Clean

- A. Repair any damaged or dented areas by removing and replacing the affected components.
- B. Clean all ceiling system components with a non-solvent based, non-abrasive commercial cleaning solution.

3.04 Maintenance Material

- A. Furnish additional material equal to \_\_\_% of the ceiling system area.