

SECTION 09 54 13  
SQUARELINE® Metal Ceiling Panels

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Expanded metal ceiling panels backed with a special, high-density, impregnated willtec® FM foam insert.

B. Related Sections:

**EDIT NOTE: ADD OR DELETE SECTIONS PER PROJECT REQUIREMENTS.**

1. Section 09 53 00 – Acoustical Ceiling Suspension Systems.
2. Section 09 51 00 – Acoustical Ceilings.
3. Section 09 21 16 – Gypsum Board Assemblies.
4. Division 21 – Fire Suppression.
5. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.
6. Division 26 – Electrical. Lights and other ceiling mounted electrical items.

1.2 SYSTEM DESCRIPTION

A. Acoustical Performance Requirements:

1. NRC (Noise Reduction Coefficient): Comply with ASTM C423-90a.

1.3 SUBMITTALS

A. Comply with Section 01 33 00 – Submittal Procedures.

B. Product Data: Manufacturer's technical data for each type of panel and baffle including fire-resistive characteristics, finishes, details of installation, and the following:

1. Manufacturer's installation instructions.
2. Certified test reports indicating compliance with Performance Requirements specified herein.

C. Samples: 2 full size sets of Samples of each specified panel for color selection or verification.

D. Closeout Submittals: Comply with Section 01 77 00 – Closeout Procedures.

1. Operating and Maintenance Manual, including cleaning and maintenance instructions.
2. Extra Material for Owner's stock.
3. Material Safety Data Sheets (MSDS).

1.4 QUALITY ASSURANCE

A. Single Source Responsibility: Obtain panel units for entire Project from a single manufacturer.

B. Manufacturer's Qualifications: Firm with not less than Closeout Submittals: Comply with Section 5 years experience in manufacturing of products similar in complexity to those required for this Project.

C. Installer's Qualifications: Firm with not less than 5 years experience in installation of products similar in complexity to those required for this Project, including specific requirements indicated.

1. Successfully completed not less than 5 comparable scale projects.

## 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01 60 00 – Product Requirements.
- B. Deliver and store materials in manufacturer's original unopened containers with brands, names, and production lot numbers clearly marked on these containers.
- C. Storage and Protection: Comply with manufacturer's recommendations.
  - 1. Store products in a cool, dry place out of direct sunlight.
  - 2. Protect from elements and from damage.

## 1.6 PROJECT CONDITIONS

- A. Environmental Requirements within building:
  - 1. Panels do not require special environmental conditions.
  - 2. Systems may be installed at any stage of construction.

## 1.7 WARRANTY

- A. Provide manufacturer's written warranty per Section 01 77 00 – Closeout Procedures.

## 1.8 MAINTENANCE

- A. Extra Materials:
  - 1. Deliver not less than the following quantity of each type, color, and pattern of material, exclusive of material required to properly complete installation.

EDIT NOTE: RETAIN AMOUNT OF EXTRA MATERIALS USED ON PROJECT. DELETE THIS ARTICLE IF NO EXTRA MATERIALS REQUIRED OR ACCEPTABLE.

- a. 3 percent.
- b. 5 percent.
- c. 1 carton.
- 2. Furnish Extra Materials from same production run to verify run for color.
- 3. Package replacement materials with protective covering, identified with appropriate labels.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Subject to compliance with requirements, provide products from the following manufacturer:
  - 1. pinta acoustic, inc.  
2601 49<sup>th</sup> Avenue North, Ste. 400  
Minneapolis, Minnesota 55430  
Telephone: 800-662-0032  
612-355-4250  
Fax: 612-355-4255  
Website: www.pinta-acoustic.com  
E-mail: sales@pinta-acoustic.com
- B. Substitutions: Comply with Section 01 60 00 – Product Requirements.

### 2.2 MANUFACTURED UNITS

EDIT NOTE: ADD OR DELETE METAL CEILING PANELS PER PROJECT REQUIREMENTS. IF RETAINING MORE THAN ONE TYPE, INDICATE EACH TYPE ON DRAWINGS.

- A. Expanded Metal Ceiling Panels: Pre-formed, galvanized, expanded metal ceiling panel with small diamond pattern and integral willtec® FM foam for lay-in type application.
1. Foam Insert Density: 5.7 pounds per cubic foot (2.59 kg per m<sup>3</sup>).
  2. Foam Insert Tensile Strength: 10 psi (0.07 MPa).
  3. Flammability: Class 1 per ASTM E84.
  4. Unit Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
  5. Edge Condition: Flat with directional notch in one corner.

EDIT NOTE: RETAIN EDGE CONDITION ABOVE OR BELOW.

6. Edge Condition: Beveled with directional notch in one corner.
7. Foam Insert Thickness: 0.25 (6.4 mm) inch thick.
8. Foam Color: Light Grey.

EDIT NOTE: RETAIN FOAM COLOR ABOVE OR BELOW.

9. Foam Color: Charcoal.
10. Metal Panel Color: White.

EDIT NOTE: RETAIN METAL PANEL COLOR ABOVE OR BELOW.

11. Metal Panel Color: Chrome.
12. Open Area: 68.2 percent.
13. Weight: 0.6 pounds per square foot (2.5 kg per m<sup>2</sup>).
14. Sound Absorption Coefficients: ASTM C423-90a.

<u>Frequencies (Hz)</u>	<u>125</u>	<u>250</u>	<u>500</u>	<u>1,000</u>	<u>2,000</u>	<u>4,000</u>	<u>NRC</u>
0.25 inch (6.4 mm) thick:	0.37	0.59	0.30	0.50	0.75	1.09	0.55

15. Acceptable Product: SQUARELINE Standard Ceiling Tiles.

- B. Expanded Metal Ceiling Panels: Pre-formed, galvanized, expanded metal ceiling panel with medium diamond pattern and integral willtec® FM foam for lay-in type application.
1. Foam Insert Density: 5.7 pounds per cubic foot (2.59 kg per m<sup>3</sup>).
  2. Foam Insert Tensile Strength: 10 psi (0.07 MPa).
  3. Flammability: Class 1 per ASTM E84.

EDIT NOTE: RETAIN PANEL SIZE REQUIRED FOR PROJECT AND DELETE SIZES NOT REQUIRED.

4. Panel Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
5. Panel Size: Nominal 24 inch by 48 inch (610 mm by 1219 mm).
6. Panel Size: Custom sizes indicated on Drawings.
7. Edge Condition: Flat with directional notch in one corner.
8. Foam Insert Thickness: 0.25 (6.4 mm) inch thick.
9. Foam Color: Light Grey.

EDIT NOTE: RETAIN FOAM COLOR ABOVE OR BELOW.

10. Foam Color: Charcoal.
11. Metal Panel Color: Chrome.
12. Open Area: 62.5 percent.
13. Weight: 1.3 pounds per square foot (5.9 kg per m<sup>2</sup>).
14. Sound Absorption Coefficients: ASTM C423-90a.

<u>Frequencies (Hz)</u>	<u>125</u>	<u>250</u>	<u>500</u>	<u>1,000</u>	<u>2,000</u>	<u>4,000</u>	<u>NRC</u>
0.25 inch (6.4 mm) thick:	0.37	0.59	0.30	0.50	0.75	1.09	0.55

15. Acceptable Product: SQUARELINE Medium Ceiling Tiles.

- C. Expanded Metal Ceiling Panels: Pre-formed, galvanized, expanded metal ceiling panel with large diamond pattern and integral willtec® FM foam for lay-in type application.
  - 1. Foam Insert Density: 5.7 pounds per cubic foot (2.59 kg per m<sup>3</sup>).
  - 2. Foam Insert Tensile Strength: 10 psi (0.07 MPa).
  - 3. Flammability: Class 1 per ASTM E84.

EDIT NOTE: RETAIN PANEL SIZE REQUIRED FOR PROJECT AND DELETE SIZES NOT REQUIRED.

- 4. Panel Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
- 5. Panel Size: Nominal 24 inch by 48 inch (610 mm by 1219 mm).
- 6. Panel Size: Nominal 48 inch by 48 inch (1219 mm by 1219 mm).
- 7. Panel Size: Nominal 48 inch by 96 inch (1219 mm by 2438 mm).
- 8. Panel Size: Custom sizes indicated on Drawings.
- 9. Edge Condition: Flat with directional notch in one corner.
- 10. Foam Insert Thickness: 0.25 (6.4 mm) inch thick.
- 11. Foam Color: Light Grey.

EDIT NOTE: RETAIN FOAM COLOR ABOVE OR BELOW.

- 12. Foam Color: Charcoal.
- 13. Metal Panel Color: Chrome.
- 14. Open Area: 71.4 percent.
- 15. Weight: 1.5 pounds per square foot (6.7 kg per m<sup>2</sup>).
- 16. Sound Absorption Coefficients: ASTM C423-90a.

Frequencies (Hz)	<u>125</u>	<u>250</u>	<u>500</u>	<u>1,000</u>	<u>2,000</u>	<u>4,000</u>	<u>NRC</u>
0.25 inch (6.4 mm) thick:	0.37	0.59	0.30	0.50	0.75	1.09	0.55

- 17. Acceptable Product: SQUARELINE Ultra Ceiling Tiles.

### 2.3 SUSPENSION SYSTEM

- A. Suspension System: Refer to Section 09 53 00 – Acoustical Ceiling Suspension Assemblies for acoustical panel support system.

EDIT NOTE: RETAIN PARAGRAPH ABOVE OR BELOW. USE ANY 15/16 INCH OR 9/16 INCH GRID. 15/16 INCH GRID IS RECOMMENDED BY PANEL MANUFACTURER.

- B. Suspension System: **[Architect to insert acoustical tile ceiling system suspension system specifications here.]**

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verification of Conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper and or timely completion.
  - 1. Do not proceed until unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION

- A. Comply with manufacturer's instructions and recommendations for installation of acoustical panels:
  - 1. Coordinate with mechanical and electrical in locating and spacing fixtures, diffusers, and similar items located in ceiling.
  - 2. Lay out pattern per reflected ceiling drawings. Where not otherwise indicated, lay out in such manner that margins on opposite sides of rooms are equal or greater than 1/2 tile in width.

3. Where acoustical ceilings of different heights abut, install acoustical material matching ceiling at vertical surface at ceiling break match ceiling, unless otherwise indicated.
- B. Suspension system: Refer to Section 09 53 00 – Acoustical Ceiling Suspension Assemblies for installation requirements.

RETAIN PARAGRAPH ABOVE OR BELOW PER PROJECT REQUIREMENTS.

- C. Suspension System: [Architect to insert acoustical tile ceiling system suspension system installation requirements here.]
- D. Expanded Metal Ceiling Panels:
  1. Refer to manufacturer's written installation instructions.
  2. Install panels true to lines and plane indicated.
  3. Install panels with manufactured cut notches in same location for each panel to obtain consistent pattern throughout room.
  4. Install panels flush and level in suspension system.
  5. Install panels with hand protection to avoid soiling.
  6. Install panels having a directional pattern or to conform to custom design.
  7. Press panels from above to set into grids. Do not pull from face.

### 3.3 CLEANING

- A. Clean adjacent surfaces and remove unused product and debris from site.
- B. After installation is completed, clean soiled surfaces of materials.
- C. Remove and reinstall improperly installed material.
- D. Remove damaged or discolored material, or material that cannot be properly cleaned, and install new material.

END OF SECTION

willtec® is a product of pinta acoustic, inc.