INFORMATION SHEETS

To learn more about these and other applications, visit our website at www.pinta-acoustic.com
Product Information Sheets

LEED™ Credit Statement
SONEX® AFS Ceiling and Wall System
SONEX Rondo Baffles
WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
PHONSTOP™ Ceiling and Wall Tiles
BIOLINE® Wood Ceiling Tiles
SQUARELINE® Metal Ceiling Tiles
CONTOUR® Ceiling and Wall Tiles
HARMONI Ceiling Tiles
WHITELINE® Ceiling Tiles
Ceiling Grid System
FABRITEC Wall Panels
SONEX® Wall Panels & Baffles
PROSPEC Decibel Drop™

Project Information Sheets

Education Project Information
Entertainment and Hospitality Project Information
Office Project Information
Religious Project Information

Glossary

To learn more about these and other applications, visit our website at www.pinta-acoustic.com
From the original manufacturer of SONEX® acoustic panels for the broadcast and recording industries, pinta acoustic is proud to offer SONEX AFS acoustic plaster ceiling and wall system. Directly applied to a solid substrate, SONEX AFS consists of a thin fiberglass mesh laminated to Class 1 fire-rated willtec® open-cell melamine-based foam panels, offered in a variety of thicknesses. Joints between panels are taped and finished, then two coats of PHONSTOP® PA85 plaster are trowel-applied to create a smooth, porous surface. Sound energy travels through the finish and is absorbed into the willtec core to deliver exceptional NRC ratings.

----

**Advantages**

- Smooth, seamless monolithic appearance
- Excellent sound absorption
- Flexible and resilient
- Large, lightweight panels for faster production times
- Low VOC, better indoor air quality, high light reflectance

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Minneapolis, MN 55430
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+1 612-355-4200
sales@pinta-acoustic.com
www.pinta-acoustic.com
SONEX® AFS Ceiling and Wall System

Product Information

Applications
- Restaurants and high-end interiors
- Public spaces and government buildings
- Swimming pools
- Theaters and concert halls
- Museums and galleries
- Other interior spaces

Materials
- Class 1 fire-rated, lightweight, flexible and resilient SONEX panels laminated with fiberglass mesh facing
- Trowel-on acoustic water-based adhesive with mechanical fasteners, if required
- Two coats (maximum thickness of 4 mm) of PHONSTOP® PA85 Plaster (applied by approved applicator*)
- Finished appearance is smooth and white with slight texture from integral mineral aggregates
- Optional acoustical coating** for custom colors may be mist-applied to the dry finish

Size
- Panel dimensions: up to 4’ x 8’, 4’ x 4’ typical (1.22 x 2.44 m, 1.22 x 1.22 m typical)
- Variety of thicknesses: 5/8”, 1”, 1-1/2” or 2” (16, 25, 38 or 50 mm)

Installation
- Can be applied to flat or curved solid substrates on walls or ceilings after electrical, lighting, HVAC and fire-sprinkler systems have been installed***
- willtec® panels laminated with fiberglass mesh facing, adhere directly to wall or ceiling substrates using trowel-on acouSTIC water-based adhesive with mechanical fasteners, if required (fiberglass mesh facing exposed surfaces)
- No box outs required around openings
- Panel joints are covered with fiberglass mesh tape and finished with PHONSTOP PA85 Plaster
- One base coat of PHONSTOP PA85 Plaster is hand trowel-applied to set and a second coat is applied to finish (5/32” or 4 mm is the maximum total plaster thickness)
- Control joints required every 5,000 square feet (46.52 m²) or as specific project conditions call for
- Approved applicator specialist only*
- One-year warranty

Cleaning and Repair
- Blow dust from finish with compressed air
- Non-penetrating surface marks may be removed carefully using masking tape to lightly lift marks away
- Tougher stains may be removed with a 10 percent hydrogen peroxide solution applied sparingly
- If damaged, finish may be patched (subtle cold joints may be visible)
- If necessary, unify patched surfaces with an acoustical coating designed for this application**
- Consult an approved applicator specialist for repairs

Physical Data

Tensile Strength 8 PSI (ASTM D3574-77)
Density 0.7 lbs./cubic foot
Elongation 8% (ASTM D3574-77)
Heat Conductivity K factor = 0.24 at 50°F
Temperature Stability 0 to 302°F
Fire Resistance Class 1 (ASTM E84)
Surface Treatments PHONSTOP PA85 Plaster max. 5/32” (4 mm) thick

Sound Absorption

<table>
<thead>
<tr>
<th>Finish</th>
<th>Thickness</th>
<th>Coefficient per ASTM C423-90a (Mounting Type A) Frequency (Hz)/Sabin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>125</td>
</tr>
<tr>
<td>SONEX AFS Natural</td>
<td>5/8” (16 mm)</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>1” (25 mm)</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>1-1/2” (38 mm)</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>2” (50 mm)</td>
<td>0.24</td>
</tr>
</tbody>
</table>

* Plaster may only be applied by applicator specialists approved by pinta acoustic, inc.
** See website for details. Acoustical coating may only be applied by a certified applicator.
*** Natural and artificial light will affect the appearance of the finished surface.

Other Products
- Wall Panels
- Ceiling Tiles
- Ceiling Clouds
- Baffles
- Barriers, Foam and Composites

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SONEX® Rondo Baffles offer design versatility and exceptional acoustical properties. Easy to install vertically or horizontally, SONEX Rondo is ideal for a broad range of interior spaces, including conference rooms, reception areas, libraries, production facilities and stadiums.

**Advantages**
- Vertical or horizontal configurations for design flexibility
- Exceptional sound absorption across all frequencies
- Easy installation
- Class 1 fire-rated

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SONEX® Rondo Baffles

Product Information

Material
- Made from pinta’s willtec® foam
- Natural white or light grey

Sizes
- Up to 24” lengths
- 6” or custom diameters

Applications
- Reception areas
- Conference rooms
- Multipurpose rooms and gymnasiums
- Aquatic centers and indoor pools
- Music and classrooms
- Manufacturing facilities
- Stadiums
- Nearly any interior space with reverberation or echo problems

Installation Information
- Can be hung vertically or horizontally, above or below ceiling lights
- The distance between hanging absorbers and the ceiling has little effect on acoustic performance

Wall-to-Wall Cable Mount Installation
- Recommended for large, open areas
- Baffles are arranged parallel with each other
- Spacer bars may be used for arrangement and placement of baffles along the cable span

Ceiling Mount Installation
- Avoid hanging baffles more than 10’ below ceiling (long tethering may cause baffles to sway in areas with strong air currents)
- Use 1/16” cable or lightweight chain to hang baffles from the ceiling
- Attach cable or chain to ceiling by looping it around ceiling joists or trusses (anchoring eyes can also be used. Install them into the ceiling before you begin.)
- Once cable or chains are in place, attach the bottom end of the cables or chains to the eye loop on top of the corkscrew hanger

Physical Data—willtec foam
- Material: Open-cell melamine-based foam
- Density: 0.5 to 0.7 lbs./cu. ft. (ASTM D3574-77)
- Long-term Service Temperature: 302°F (150°C)
- Fire Resistance: Class 1 per ASTM E 84
- Flame Spread per ASTM E 84 Natural: 5
- Smoke Density per ASTM E 84 Natural: 50
- Microbial Growth: Passes UL 181, section 11
- Fungus Resistance Rating: 0 per ASTM G21
- Finishes: Natural (white or light grey)

Sound Absorption

<table>
<thead>
<tr>
<th>Finish Thickness</th>
<th>Sound Absorption per ASTM C423 (J-Mount)</th>
</tr>
</thead>
<tbody>
<tr>
<td>125Hz 250Hz 500Hz 1kHz 2kHz 4kHz NRC</td>
<td></td>
</tr>
<tr>
<td>Natural 6” diameter (white or light grey)</td>
<td>0.30 1.04 2.73 3.54 3.57 3.42 2.43</td>
</tr>
</tbody>
</table>

Other Products
pinta acoustic, inc. manufactures a broad range of acoustical materials including:
- CONTOUR® Ceiling Tiles
- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE™ Metal Ceiling Tiles
- BIONLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- FABRITEC Wall Panels
- PHONSTOP™ Ceiling and Wall Tiles
- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- PROSPEC™ Barriers, Foams and Composites
- PROSPEC Decibel Drop® Viscoelastic Damping Compound
- pinta Ceiling Grid Systems

Custom Shapes Available

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sales@pinta-acoustic.com
www.pinta-acoustic.com

© 2011 pinta elements GmbH. All rights reserved. 8/11 pinta acoustic, inc. is a company of pinta elements GmbH.
WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awnings provide exceptional acoustical control and design flexibility. Lightweight and easy to install, WHISPERWAVE products are ideal for use in classrooms, cafeterias, multipurpose rooms, indoor swimming pools, offices, libraries, religious facilities and other large open areas.

**Advantages**

- Standard and custom wave designs
- Exceptional acoustical control across all frequencies
- Offered in panel, baffle, ceiling cloud and awning options
- Easy installation
- Class 1 fire-rated

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Material
WHISPERWAVE is made from willtec® foam, which is Class 1 fire-rated for flame spread and smoke density. willtec natural also meets the corner burn test UL 1715. WHISPERWAVE is offered in natural white and grey and can be HPC-coated.

Sizes
WHISPERWAVE Wall Panels
- Any dimension up to 48' x 96'
- Custom panel sizes available
- Can be joined for long ribbon appearance
- 1-1/2", 2" and 3" thicknesses

WHISPERWAVE Baffles
- Any dimension up to 48' x 96'
- Custom baffle sizes available
- 2" and 3" thicknesses

WHISPERWAVE Ceiling Clouds and Awnings
- Any dimension up to 48' x 96'
- Custom sizes also available
- 2-1/2" and custom thicknesses

Installation
WHISPERWAVE Panels
- Mounts to ceilings or walls using acouSTIC adhesive

WHISPERWAVE Baffles
- Corkscrew hangers are installed in the field for either wall-to-wall cable installation or ceiling-mounted cable installation
- Can be aligned in the same direction or arranged so that every other baffle is turned 90 degrees

WHISPERWAVE Ceiling Cloud
- Corkscrew hangers are installed in the field for ceiling-mounted cable installation

WHISPERWAVE Awning
- Install track on the wall to support wall side of awning
- Corkscrew hangers are installed in the field for ceiling-mounted cable installation

Physical Data—willtec

Material
Open-cell melamine-based foam
Density
0.5 to 0.7 lbs./cubic ft. (ASTM D3574-77)
Long-Term Service Temperature
302° F
Fire Resistance
Class 1 per ASTM E 84 (all finishes) Meets UL 1715 (willtec natural)
Flame Spread per ASTM E 84
Natural: 5
HPC-coated: 15
Smoke Density per ASTM E 84
Natural: 50
HPC-coated: 150
Microbial Growth
Passes UL 181, section 11
Fungus Resistance
Rating 0 per ASTM G21
Toxicity
Passes University of Pittsburgh Toxicity of Smoke Emission test

Finishes
Natural White, Grey or HPC-coated

Sound Absorption—WHISPERWAVE Panels

<table>
<thead>
<tr>
<th>Finish</th>
<th>Thickness</th>
<th>Coefficients per ASTM C423-90a</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>125Hz</td>
<td>250Hz</td>
</tr>
<tr>
<td>Natural White or Grey</td>
<td>2&quot;</td>
<td>0.11</td>
</tr>
<tr>
<td>HPC-coated (Black, Grey, White, Almond)</td>
<td>2&quot;</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>3&quot;</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Sound Absorption—WHISPERWAVE Baffles

<table>
<thead>
<tr>
<th>Finish</th>
<th>Thickness</th>
<th>Sabins per 24&quot; x 48&quot; Baffle per ASTM C423-90a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural White or Grey</td>
<td>2&quot;</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>3&quot;</td>
<td>6.4</td>
</tr>
</tbody>
</table>

Sound Absorption—WHISPERWAVE Ceiling Clouds/Awnings

<table>
<thead>
<tr>
<th>Finish</th>
<th>Thickness</th>
<th>Sabins per 48&quot; x 96&quot; Ceiling Cloud per ASTM C423-07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural White or Grey</td>
<td>2-1/2&quot;</td>
<td>6.4</td>
</tr>
</tbody>
</table>
SECTION 094800
WHISPERWAVE Sound Absorptive Panels

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

EDIT NOTE: RETAIN PRODUCTS BELOW AS REQUIRED FOR PROJECT AND DELETE PRODUCTS NOT REQUIRED.

1. Smooth, curved, sound-absorptive wall panels.
2. Smooth, curved, sound-absorptive baffles.
4. Smooth, curved, sound-absorptive awnings.

1.2 SUBMITTALS

A. Product Data: Manufacturer’s technical data for each type of panel and baffle including fire-resistant characteristics, finishes, details of installation, and the following:
Manufacturer’s installation instructions.
Certified test reports indicating compliance with Performance Requirements specified herein.

B. Samples: 2 full size sets of Samples of the following specified units for color selection or verification.

EDIT NOTE: RETAIN PRODUCTS BELOW AS REQUIRED FOR PROJECT AND DELETE PRODUCTS NOT REQUIRED.

1. Panels.
2. Baffles.
3. Ceiling clouds.
4. Awnings.

C. Closeout Submittals:

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

1.3 QUALITY ASSURANCE

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

B. Manufacturer’s Qualifications: Firm with not less than 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.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store materials in manufacturer’s original unopened containers with brands, names, and production lot numbers clearly marked on these containers.

B. 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.

1.5 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.
   3. Systems may be installed in cool storage rooms and rooms with high humidity

1.6 WARRANTY

A. Provide manufacturer's written warranty per Section 017700 – Closeout Procedures.

1.7 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 OF 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 49th Avenue North, Suite 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

2. Approved substitution.

2.2 MANUFACTURED UNITS

EDIT NOTE: FOR EACH PROJECT, SELECT THE DESIRED PANEL, BAFFLE, CEILING CLOUD, OR AWNING, ALONG WITH THE REQUIRED THICKNESS, FINISH, AND IF APPLICABLE, THE EDGE.

A. WHISPERWAVE® Panel: Lightweight, open-cell willtec® foam panel complying with the following requirements:
   1. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³) per ASTM D3574-77.
   2. Tensile Strength: 8 psi (0.06 MPa).
   5. Flammability: Class 1 per ASTM E84.
   6. Flame Spread: Per ASTM E84.
a. Natural: 5.
b. HPC: 15.

7. Smoke Density: Per ASTM E84.
a. Natural: 50.
b. HPC: 200.

8. Panel Size: 24 inch by 48 inch (610 mm by 1219 mm).
9. Panel Thickness: 2 inches (51 mm).

EDIT NOTE: SELECT PANEL THICKNESS ABOVE OR BELOW. DELETE THICKNESS NOT REQUIRED FOR PROJECT.

10. Panel Thickness: 2.5 inches (63.5 mm).

EDIT NOTE: SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT. HYPALON USED IN THESE MATERIALS HAS BEEN SPECIALLY FORMULATED BY DUPONT CORPORATION TO IMPROVE STAIN RESISTANCE AND CLEANABILITY.


Frequencies (Hz) | 125 | 250 | 500 | 1,000 | 2,000 | 4,000 | Average | Mounting
--- | --- | --- | --- | --- | --- | --- | --- | ---
2 inch (51 mm) Natural: | 0.11 | 0.33 | 0.85 | 1.05 | 1.09 | 1.06 | 0.85 | B
2 inch (51 mm) Painted: | 0.07 | 0.37 | 0.89 | 1.05 | 1.04 | 1.03 | 0.85 | B
2 inch (51 mm) Hypalon: | 0.13 | 0.41 | 1.02 | 1.18 | 1.18 | 1.13 | 0.95 | B
3 inch (76 mm) Natural: | 0.09 | 0.68 | 1.20 | 1.18 | 1.12 | 1.05 | 1.05 | A
3 inch (76 mm) Painted: | 0.15 | 0.72 | 1.21 | 1.20 | 1.15 | 1.13 | 1.05 | A
3 inch (76 mm) Hypalon: | 0.13 | 0.85 | 1.25 | 1.22 | 1.13 | 1.14 | 1.10 | A

B. WHISPERWAVE® Baffle. Lightweight, open-cell willtec® foam panel complying with the following requirements:
1. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m$^3$).
2. Tensile Strength: 8 psi (0.06 MPa).
3. Flammability: Class 1 per ASTM E84.
4. Flame Spread: Per ASTM E84.
a. Natural: 5.
5. Smoke Density: Per ASTM E84.
a. Natural: 50.
6. Baffle Size: 24 inch by 48 inch (610 mm by 1219 mm).
7. Baffle Thickness: 2 inches (51 mm).

EDIT NOTE: SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT.


<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>1.0</td>
<td>5.4</td>
<td>10.8</td>
<td>16.3</td>
<td>18.7</td>
<td>24.0</td>
<td>12.7</td>
</tr>
</tbody>
</table>

EDIT NOTE: RETAIN OPTION OR OPTIONS BELOW AS REQUIRED FOR PROJECT AND DELETE OPTIONS NOT REQUIRED.

C. WHISPERWAVE® [Ceiling Cloud] [and] [Awning]. Lightweight, open-cell willtec® foam panel complying with the following requirements:
1. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
2. Tensile Strength: 8 psi (0.06 MPa).
3. Flammability: Class 1 per ASTM E84.
4. Flame Spread: 5, per ASTM E84.
5. Smoke Density: 50, per ASTM E84.
6. Baffle Size: 48 inch by 96 inch (1219 mm by 2438 mm).
7. Baffle Thickness: 2-1/2 inches (64 mm).

EDIT NOTE: SELECT PANEL COLOR BELOW. DELETE PANEL COLOR NOT REQUIRED FOR PROJECT.

<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>1.0</td>
<td>5.4</td>
<td>10.8</td>
<td>16.3</td>
<td>18.7</td>
<td>24.0</td>
<td>12.7</td>
</tr>
</tbody>
</table>

2.3 ACCESSORIES
A. Adhesive: Non-toxic, water-based adhesive, for use with foam products.
1. pinta AcouSTIC™ foam adhesive or approved substitute.

EDIT NOTE: SELECT ADHESIVE ABOVE FOR USE WITH PANELS. SELECT CHAIN BELOW FOR USE WITH BAFFLES.

B. Lightweight chain or 1/16 inch (1.6 mm) steel cable.
1. Use steel cable for wall-to-wall installations with corkscrew hangers.

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.

EDIT NOTE: USE THE FOLLOWING PREPARATION ARTICLE FOR ADHESIVE APPLIED INSTALLATIONS ONLY.

3.2 PREPARATION
A. Prior to installing acoustical panels, make certain that surfaces to which adhesive will be applied are clean and free of dust, dirt, and other residues that would inhibit a proper bond.
3.3 INSTALLATION

A. Comply with manufacturer's instructions and recommendations for installation of units.

EDIT NOTE: USE THE FOLLOWING PARAGRAPH AND SUBPARAGRAPHS FOR ADHESIVE APPLIED INSTALLATIONS ONLY.

B. Acoustical Panels:
   1. Cut adhesive tube end to produce a 1/4 inch (6.4 mm) bead.
   2. Apply adhesive to panels per manufacturer's recommended pattern and press panel firmly into place per manufacturer's installation requirements.
   3. Install panels true to lines and plane indicated.

EDIT NOTE: USE THE FOLLOWING PARAGRAPH AND SUBPARAGRAPHS FOR CHAIN APPLIED INSTALLATIONS ONLY.

C. Acoustical Baffles: Do not fasten anchors of any type to steel deck without written approval from structural engineer of record.
   1. Install mounting cable or chain by attaching to bottom chord of trusses or joists.
   2. Attach bottom end of cable or chain directly to baffle’s integral web strapping or grommets directly or with “S” type hooks.
   3. Install baffle in configuration and elevations indicated, true to lines and plane indicated.
      a. Do not install baffles more than 10 feet (3 m) below ceiling or roof structure from which it is hanging. This may cause excessive swaying of baffles by air movement.

EDIT NOTE: IF HANGING BAFFLES ON A WALL-TO-WALL CABLE SYSTEM, USE ONLY CORKSCREW HANGERS.

D. Cable installation with corkscrew hangers: Follow manufacturer's installation instructions.

3.4 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.
WHISPERWAVE® is a registered trademark of pinta acoustic, inc.
PHONSTOP™ Ceiling and Wall Tile
Product Information

PHONSTOP Ceiling and Wall Tiles are made from 100 percent recycled glass, sintered to form rigid, lightweight and porous sound absorbers. PHONSTOP products have exceptional acoustical properties and are easy to install indoors or outdoors.

>> Advantages

Made from 100 percent recycled glass
Exceptional acoustical properties
Two styles: adhere to walls and ceilings or lay-in pinta or standard 15/16" ceiling grid system
PHONSTOP Plaster provides a seamless appearance
Can be custom colored using an acoustical coating

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Tel.: +1 (612) 355-4250
sales@pinta-acoustic.com
www.pinta-acoustic.com
Material
PHONSTOP Ceiling and Wall Tiles are made from 100 percent recycled glass sintered to form rigid, lightweight and porous sound absorbers. Tiles are ASTM 84 Class 1 (A) fire-rated and offered for adhesive (PHONSTOP V) and lay-in ceiling grid (PHONSTOP E) applications. Other PHONSTOP products include:

- PHONSTOP pa81 Adhesive (pa81 for concrete, masonry and drywall)
- PHONSTOP pa85 Plaster (for seamless, monolithic appearance)
- PHONSTOP pt17 Primer
- PHONSTOP pt13 Sealer (for weather-exposed conditions)

Size
PHONSTOP V—adhesive applications on walls and ceilings
- 24” x 24” x 2” thickness (610 x 610 x 50 mm)
- 24” x 48” x 2” thickness (610 x 1220 x 50 mm)

PHONSTOP E—ceiling grid applications
- 24” x 24” x 1” thickness nominal (604 x 604 x 25 mm)
- 24” x 48” x 1” thickness nominal (604 x 1213 x 25 mm)

Tiles offer two edge options: One face of the tiles feature 3/8” (9 mm) chamfer beveled edges, while the reverse face has square edges.

PHONSTOP V—adhesive applications on walls and ceilings
- Adheres directly to walls or ceilings
- Roll on PHONSTOP pt17 Primer to existing substrate. Apply PHONSTOP pa81 Adhesive using 3/8” tooth trowel to the back of each tile (be careful not to get adhesive on the visible tile face)
- Create a seamless, monolithic appearance by using the square edge tile face and rolling on a layer of PHONSTOP pt17 Primer; then trowel two layers of PHONSTOP pa85 Plaster*
- Can be custom colored for interior applications using an acoustical coating*
- In outdoor, weather-exposed conditions, apply PHONSTOP Sealer for added durability

PHONSTOP E—ceiling grid applications
- Lay-in pinta or any standard 15/16” ceiling grid system

Sound Absorption

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHONSTOP V— Test ASTM C423-90a; Mounting Type A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thickness 2” (50 mm), adhered and coated</td>
<td>0.14</td>
<td>0.60</td>
<td>1.09</td>
<td>0.96</td>
<td>1.02</td>
<td>1.03</td>
<td>0.90</td>
</tr>
<tr>
<td>Thickness 2” (50 mm), adhered without space between tiles</td>
<td>0.16</td>
<td>0.63</td>
<td>1.15</td>
<td>0.91</td>
<td>0.98</td>
<td>0.99</td>
<td>0.90</td>
</tr>
<tr>
<td>Thickness 2” (50 mm), adhered and plastered</td>
<td>0.26</td>
<td>0.75</td>
<td>0.86</td>
<td>0.62</td>
<td>0.66</td>
<td>0.57</td>
<td>0.70</td>
</tr>
<tr>
<td>PHONSTOP E— Test ASTM C423-90a; Mounting Type E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thickness 1” (25 mm)</td>
<td>0.45</td>
<td>0.55</td>
<td>0.60</td>
<td>0.75</td>
<td>0.80</td>
<td>0.85</td>
<td>0.70</td>
</tr>
</tbody>
</table>

*Plaster and acoustical coating may only be applied by a certified applicator.
SECTION 098400
PHONSTOP™ Acoustical Panels

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Adhesively applied expanded recycled glass ceiling and wall tiles.

   EDIT NOTE: SELECT TILE ABOVE OR PANEL BELOW. IF USING BOTH TYPES ON PROJECT, INDICATE ON DRAWINGS WHERE TILES AND PANELS ARE SCHEDULED.
   2. Lay-in expanded recycled glass ceiling panels for exposed suspension systems.

B. Related Sections:

   EDIT NOTE: ADD OR DELETE SECTIONS PER PROJECT REQUIREMENTS.
   1. Section 095100 – Acoustical Ceilings.
   2. Section 095300 – Acoustical Ceiling Suspension Systems.
   3. Section 095423 – Linear Metal Ceilings.
   4. Section 095426 – Linear Wood Ceilings.
   6. Division 21 – Fire Suppression.
   7. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.

1.2 SYSTEM DESCRIPTION

A. Acoustical Performance Requirements:

1.3 SUBMITTALS

A. Product Data: Manufacturer’s technical data for each type of ceiling panel and ceiling and wall tile including finishes and the following:
   1. Manufacturer’s installation instructions.
   2. Certified test reports indicating compliance with performance requirements specified herein.

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

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

D. LEED Submittals:
   1. Credit MR 2.1 and MR 2.2: Comply with Section 017419 – Construction Waste Management and Disposal.
   2. Product Data for Credit MR 4.1[ and MR 4.2]: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content.
      a. Include statement indicating costs for each product having recycled content.
3. Product Data for Credit EQ 3.1[ and EQ 3.2]: For products, including printed statement of VOC content.

1.4 QUALITY ASSURANCE
   A. Single Source Responsibility: Obtain tile units for entire Project from a single manufacturer.
   B. Manufacturer's Qualifications: Firm with not less than 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. Deliver and store materials in manufacturer's original unopened containers with brands, names, and production lot numbers clearly marked on these containers.
   B. 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. Tiles and 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 017700 – 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 ARE 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 49th Avenue North, Suite 400
         Minneapolis, Minnesota  55430
         Telephone:  800-662-0032
2.2 MANUFACTURED UNITS

A. Adhesively Applied Expanded Glass Ceiling and Wall Tiles: Ceiling and wall tiles manufactured from 100 percent recycled glass.

   a. Flame Spread: 0.
   b. Smoke Density: 0.

EDIT NOTE: RETAIN ONE OF THE FOLLOWING NOISE REDUCTION COEFFICIENTS AND DELETE THOSE NOT REQUIRED FOR PROJECT.

2. NRC (Painted): 0.90 per ASTM C423 Type A mounting.
3. NRC (without space between tiles): 0.90 per ASTM C423 Type A mounting.
4. NRC (Plastered): 0.70 per ASTM C423 Type A mounting.
5. Density: 16.79 pounds per cubic foot, per ASTM D1622.
6. Compressive Strength: 165 psi, per ASTM D1621.

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

8. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
9. Size: Nominal 24 inch by 48 inch (610 mm by 1220 mm).
10. Tile Thickness: 2 inch (50 mm) total thickness.
11. Edge: 3/8 inch (9 mm) chamfer.

EDIT NOTE: RETAIN TILE EDGE ABOVE OR BELOW AS REQUIRED FOR PROJECT.


EDIT NOTE: SELECT ONE OF THE FOLLOWING FINISHES. DELETE THOSE NOT USED FOR PROJECT.

13. Finish: Manufacturer's standard in the following color:
   a. Gray.
   b. Custom, match RAL name and number: [Insert name and number].

B. Lay-in Expanded Glass Ceiling Panels: Ceiling panels manufactured from 100 percent recycled glass.

   a. Flame Spread: 0.
   b. Smoke Density: 0.

EDIT NOTE: RETAIN ONE OF THE FOLLOWING NOISE REDUCTION COEFFICIENTS AND DELETE THOSE NOT REQUIRED FOR PROJECT.

2. NRC: 0.70 per ASTM C423 Type E mounting.
3. Density: 16.79 pounds per cubic foot, per ASTM D1622.
4. Compressive Strength: 165 psi, per ASTM D1621.
5. Thermal Resistance: 3.24 effective R-value, per ASTM C518.

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

6. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
7. Size: Nominal 24 inch by 48 inch (610 mm by 1220 mm).
8. Tile Thickness: 1 inch (25 mm) total thickness.
9. Edge: Slightly beveled square.

EDIT NOTE: SELECT ONE OF THE FOLLOWING FINISHES. DELETE THOSE NOT USED FOR PROJECT.
10. Finish: Manufacturer's standard in the following color:
   a. Gray.
   b. Custom, match RAL name and number: [Insert name and number].
11. Acceptable Product: PHONSTOP E.

2.3 SUSPENSION SYSTEM
A. Suspension System: Refer to Section 095300 – Acoustical Ceiling Suspension Assemblies for acoustical panel support system.

EDIT NOTE: RETAIN Paragraph above or 1 of 2 below. 15/16 Inch Grid is recommended by tile manufacturer.
B. Suspension System: [Insert acoustical tile ceiling system suspension system specifications here.]
C. Suspension System:

EDIT NOTE: RETAIN MATERIALS BELOW WITH PHONSTOP V, DELETE IF NOT REQUIRED FOR PROJECT.

2.4 MISCELLANEOUS MATERIALS
A. Primer:
B. Adhesive:

EDIT NOTE: RETAIN ABOVE FOR CONCRETE, MASONRY, AND DRYWALL SUBSTRATES AND BELOW FOR PLYWOOD AND METAL SUBSTRATES.
C. Acrylic Paint:

EDIT NOTE: RETAIN PLASTER BELOW IF REQUIRED FOR PROJECT, USE IN CONJUNCTION WITH SQUARE EDGE TILE.
D. Acoustical Plaster:
   2. Color as selected from manufacturers color chart.

EDIT NOTE: RETAIN BELOW TILES EXPOSED TO EXTERIOR.
E. Sealer:
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.

EDIT NOTE: RETAIN ARTICLE BELOW FOR PHONSTOP E.

3.2 INSTALLATION, SUSPENDED ACOUSTICAL PANEL CEILINGS

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 095300 – Acoustical Ceiling Suspension Assemblies for installation requirements.

EDIT NOTE: RETAIN PARAGRAPH ABOVE OR BELOW PER PROJECT REQUIREMENTS.

C. Suspension System: [Insert acoustical tile ceiling system suspension system installation requirements here.]

D. Acoustical Ceiling Panels:
   1. Refer to manufacturer’s written installation instructions.
   2. Install panels with proper faces exposed.
   3. Install lay in acoustical ceiling panels flush and level in suspension system.
   4. Install panels with hand protection to avoid soiling.

EDIT NOTE: RETAIN ARTICLE BELOW FOR PHONSTOP V.

3.3 INSTALLATION, ADHESIVLY APPLIED ACOUSTICAL TILE CEILINGS AND WALLS

A. Comply with manufacturer’s instructions and recommendations for installation of acoustical tiles:

B. Refer to manufacturer’s written installation instructions.
   1. Apply primer to substrate.
   2. Use adhesive to level substrate up to 10 mm thick.
   3. Apply adhesive using 3/8 inch notched trowel to back of each tile.
   4. Install tiles with [square] [chamfered] faces exposed.

EDIT NOTE: RETAIN BELOW IF RETAINING SPRAY-ON COLORING FOR INTERIOR OR EXTERIOR USE.

   5. Apply paint.

EDIT NOTE: RETAIN BELOW IF RETAINING PLASTER INSTALLATION.

   6. For interior seamless installation:
      a. Install tiles with square faces exposed.
      b. Apply primer to tile face.
      c. Install plaster base coat.
      d. Install plaster finish coat.
7. Apply sealer to exterior exposed tile.

3.4 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
BIOLINE Linear Wood Ceiling and Wall Tiles feature real wood veneer on a color-matched core made from 100 percent recycled fiber, using low-energy manufacturing and advanced green chemistry. BIOLINE Linear tiles add warmth and elegance to offices, conference rooms, showrooms, training areas, entertainment and religious facilities.

**Advantages**

- The beauty of real wood veneer
- Color-coordinated core made from 100% recycled fiber
- Qualifies for LEED credits
- Class 1 fire-rated

2601 49th Avenue North, Suite 400
Minneapolis, MN 55430
Toll-Free 1-800-662-0032
sales@pinta-acoustic.com
www.pinta-acoustic.com
BIOLINE® Linear Wood Ceiling and Wall Tiles
Product Information

Material

Veneer
- Four natural wood veneer species and six standard veneer finishes*
  - Cherry, bamboo, European steamed beech and maple
  - Custom finishes available
  - Clean by vacuuming or wiping with a slightly damp cloth

Core
- Color-coordinated core – does not require veneer wrap on edges
- Core wrapped in veneer or laminate
- FSC (Forest Stewardship Council) core wrapped in FSC veneer
- Solid lumber depending on species specified by FSC, optional
- Color-coordinated core and FSC core contain recycled fiber
- No added formaldehyde in fabrication

Finish
- Standard finish: environmentally friendly, 100 percent water-borne
- Low VOC <.3 lbs./gal. exceeds latest CARB requirements
- UV-cured finish
- Custom finishes available

Sizes
- Panelized or individual planks
  - Up to 8’ length for color-coordinated core
  - Up to 10’ for other cores depending on species specified
- Board widths: 2-1/4”, 3-1/4”, 5-1/4”, 7-1/4”, 11-1/4”
  - Custom widths available
- Thicknesses: 1/2” (12.7 mm) and 3/4” (19 mm)
- Field machinable
- Custom-machined cutouts per supplied shop drawings
- No specialty tools required for installation

Fire retardancy
- Class 1 fire-rated (ASTM E84)

LEED points
- MR 4.1, MR 4.2, MR 7, EQ 4.4 (please inquire for updates)

Standard Warranty
- One year

* All natural wood products vary in color and grain.
pinta’s BIOLINE Wood Ceiling Tiles add warmth and elegance to any décor. They are available in two distinctive styles and are made from recycled, renewable materials. The Solid-Finish tiles provide the beauty of real wood veneer while the organic tiles offer a unique fiber texture.

Environmentally friendly, BIOLINE Solid-Finish tiles contain 70 percent recycled material. Choose from custom or standard natural wood veneers, including cherry (natural and red), beech, maple and bamboo (natural and caramel) in perforated or unperforated options.

BIOLINE Organic-Texture tiles reduce reverberation and echo by absorbing between 55 and 80 percent of the sound directed toward them. Made from 80 percent recycled material, Organic-Texture tiles are offered in custom or three standard wood shades of light, medium and dark to complement your décor.

Applications

- Offices and conference rooms
- Showrooms and training areas
- Entries and boardrooms
- Entertainment facilities
- Religious facilities

BIOLINE Wood Ceiling Tiles feature

- Rigid, durable, stable material that tolerates a broad range of job site environmental conditions
- No added urea-formaldehyde
- Standard finish: UV-cured, waterborne-finish with UV blockers for color stability
- Can contribute to LEED® credits
- Excellent impact resistance
- Fits pinta’s or other conventional grid systems
- Field machinable, custom cuts and cutouts offered

BIOLINE® Wood Ceiling Tiles
Product Information
Other Products
pinta acoustic, inc. manufactures a broad range of acoustical materials including:

- **CONTOUR® Ceiling Tiles**
- **HARMONI® Ceiling Tiles**
- **WHITELINE® Ceiling Tiles**
- **SQUARELINE® Metal Ceiling Tiles**
- **SONEX® Baffles and Panels**
- **SONEX Clean Baffles, Panels and Ceiling Tiles**
- **SONEX Rondo Baffles**
- **FABRITEC Wall Panels**
- **PHONSTOP™ Ceiling and Wall Tiles**
- **WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings**
- **PROSPEC® Barriers, Foams and Composites**
- **PROSPEC Decibel Drop™ Viscelastic Damping Compound**
- **pinta Ceiling Grid Systems**
SECTION 09 54 26
BIOLINE® Wood Ceiling Tiles

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes:
1. Solid finish wood veneer ceiling tiles.

EDIT NOTE: SELECT TILE ABOVE OR BELOW. IF USING BOTH TYPES ON PROJECT, INDICATE ON DRAWINGS WHERE TILES ARE SCHEDULED.
2. Organic textured fiber ceiling tiles.

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.
4. Division 21 – Fire Suppression.
5. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.

1.2 SYSTEM DESCRIPTION
A. Acoustical Performance Requirements:

1.3 SUBMITTALS
A. Comply with Section 01 33 00 – Submittal Procedures.
B. Product Data: Manufacturer’s technical data for each type of ceiling tile including finishes 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 tile 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 tile units for entire Project from a single manufacturer.
B. Manufacturer's Qualifications: Firm with not less than 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.
SECTION 09 54 26
BIOLINE® Wood Ceiling Tiles

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes:
   1. Solid finish wood veneer ceiling tiles.

EDIT NOTE: SELECT TILE ABOVE OR BELOW. IF USING BOTH TYPES ON PROJECT, INDICATE ON DRAWINGS WHERE TILES ARE SCHEDULED.
   2. Organic textured fiber ceiling tiles.

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.
   4. Division 21 – Fire Suppression.
   5. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.

1.2 SYSTEM DESCRIPTION
A. Acoustical Performance Requirements:

1.3 SUBMITTALS
A. Comply with Section 01 33 00 – Submittal Procedures.
B. Product Data: Manufacturer's technical data for each type of ceiling tile including finishes 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 tile 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 tile units for entire Project from a single manufacturer.
B. Manufacturer’s Qualifications: Firm with not less than 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. Tiles 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 OF 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 49th 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
   A. Solid-Finish Wood Ceiling Tiles: Wood ceiling tiles manufactured from 70 percent recycled, post-industrial material by weight.
      1. Core: Manufacturer’s standard medium density fiberboard with solid color throughout. Edge banding is not required.
2. Fire resistance: Class 1 per ASTM E84.

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

3. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
4. Size: Nominal 24 inch by 48 inch (610 mm by 1219 mm).
5. Size: Custom sizes indicated on drawings.
6. Tile Thickness: 5/8 inch (12.7 mm) total thickness.

EDIT NOTE: RETAIN TILE EDGE ABOVE OR BELOW AS REQUIRED FOR PROJECT. REVEAL IS STANDARD AND SQUARE IS OPTIONAL.

8. Edge: Square.

EDIT NOTE: SELECT ONE OF THE FOLLOWING TILE VENEERS INDICATED BELOW. DELETE VENEERS NOT REQUIRED FOR PROJECT.

9. Face: Smooth wood veneer of species of the following:
   a. Cherry Natural and Red.
   b. Beach.
   c. Maple.
   d. Bamboo Natural and Caramel.
   e. Custom wood veneer to match Architect’s sample.
10. Finish: Manufacturer's standard stain.

B. Perforated Solid-Finish Wood Ceiling Tiles: Perforated wood ceiling tiles manufactured from 70 percent recycled, post-industrial material by weight.
1. Core: Manufacturer's standard medium density fiberboard with solid color throughout. Edge banding is not required.
2. Fire resistance: Class 1 per ASTM E84.
3. NRC: 0.40.

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

4. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
5. Size: Nominal 24 inch by 48 inch (610 mm by 1219 mm).
6. Size: Custom sizes indicated on drawings.
7. Tile Thickness: 5/8 inch (12.7 mm) total thickness.

EDIT NOTE: RETAIN TILE EDGE ABOVE OR BELOW AS REQUIRED FOR PROJECT. REVEAL IS STANDARD AND SQUARE IS OPTIONAL.


EDIT NOTE: SELECT ONE OF THE FOLLOWING TILE VENEERS INDICATED BELOW. DELETE VENEERS NOT REQUIRED FOR PROJECT.

10. Face: Smooth wood veneer of species of the following:
    a. Cherry Natural and Red.
    b. Beach.
    c. Maple.
    d. Bamboo Natural and Caramel.
    e. Custom wood veneer to match Architect’s sample.
11. Finish: Manufacturer's standard stain.
12. Perforations and Patterns: Provide ceiling tiles with the following perforation style and pattern:
   a. Perforation: 0.25 inch (6.4 mm).
   b. Perforation: 0.31 inch (8 mm).
   c. Pattern: Diamond.
   d. Pattern: Square.


C. Organic-Texture Wood Ceiling Tiles: Textured fiber wood ceiling tiles manufactured from 80 percent recycled, post-industrial material by weight.
   1. Fire resistance: Class 1 per ASTM E84.
   2. Flame Spread: 25.

EDIT NOTE: RETAIN ONE OF THE FOLLOWING THREE NOISE REDUCTION COEFFICIENTS AND DELETE THOSE NOT REQUIRED FOR PROJECT.
   4. NRC: 0.55 per ASTM C423 Type E mounting.
   5. NRC: 0.65 per ASTM C423 Type E mounting.
   6. NRC: 0.80 per ASTM C423 Type A mounting.
   7. Sound Insulation: Acoustical foam of fiberglass recommended by tile manufacturer to obtain NRC required for project.

EDIT NOTE: RETAIN TILE SIZE REQUIRED FOR PROJECT AND DELETE SIZES NOT REQUIRED.
   8. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
   9. Size: Nominal 24 inch by 48 inch (610 mm by 1219 mm).
   10. Size: Nominal 24 inch by 72 inch (610 mm by 1829 mm).
   11. Size: Custom sizes indicated on drawings.
   12. Tile Thickness: 3/4 inch (19 mm) total thickness.

EDIT NOTE: RETAIN TILE EDGE ABOVE OR BELOW AS REQUIRED FOR PROJECT. REVEAL IS STANDARD AND SQUARE IS OPTIONAL.
   15. Face: Natural.

EDIT NOTE: SELECT ONE OF THE FOLLOWING FOUR FINISHES. DELETE THOSE NOT USED FOR PROJECT.
   16. Finish: Manufacturer's standard in the following color:
      a. Light.
      b. Medium.
      c. Dark.

2.3 SUSPENSION SYSTEM

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

EDIT NOTE: RETAIN PARAGRAPH ABOVE OR BELOW. 15/16 INCH GRID IS RECOMMENDED BY TILE MANUFACTURER.

B. Suspension System: [Insert acoustical tile ceiling system suspension system specifications here.]
SQUARELINE® Metal Ceiling Tiles
Product Information

- Sleek, modern look
- Custom options
- Easy installation
- Acoustical control
- Three bold patterns:
  - SQUARELINE Standard
  - SQUARELINE Medium
  - SQUARELINE Ultra

SQUARELINE Metal Ceiling Tiles give ceilings a stunning, modern, high-tech look. Constructed from 35 to 55 percent recycled material, these expanded-metal tiles are available in three distinct patterns with or without an acoustical backer.

If you’re looking for a more dramatic, contemporary look, choose the large mesh pattern of SQUARELINE Ultra or the mid-size pattern of SQUARELINE Medium. Both come in white, chrome or black metal with a white, light grey or black backer and are ideal for large, open environments such as modern entries, museums, convention centers, stadiums and restaurants.

SQUARELINE Standard offers contemporary European flair in a choice of white, chrome or black metal with a white, light grey or black backer. Matching trim tiles are also available. They are sophisticated choice for modern offices, conference and board rooms, lobbies, retail stores and more.

To meet your unique vision, specify SQUARELINE in a custom dimension or distinctive color of metal to match the décor.
Material
- 35% to 55% recycled material
- Galvanized, powder-coated expanded metal ceiling tiles
- Durable and Class 1 fire-rated
- Fleece® acoustical backer prebonded to metal ceiling tiles

Custom Options
- Tile dimensions
- Color of metal
- With or without acoustical backer

Minimum orders, setup charges and longer lead times may apply to custom orders.

Installation
- Easily drops into pinta or any standard ceiling grids
- Prebonded, one-piece design simplifies handling
- Install at any stage of construction
- Cotton gloves recommended
- Expanded metal is directional; install with notch on all tiles facing the same direction

Other Products
pinta acoustic, inc. manufactures a broad range of acoustical materials including:
- CONTOUR® Ceiling Tiles
- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- FABRITEC Wall Panels
- PHONSTOP™ Ceiling and Wall Tiles
- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pinta Ceiling Grid Systems

Physical Data—willtec FM
- Tensile Strength 10 PSI (ASTM D3574-77)
- Density 5.7 lbs./cu. ft.
- Elongation 20% (ASTM D3574-77)
- Heat Conductivity K factor = 0.38 at 50° F
- Long-Term Service Temperature -76 to 302°F
- Fire Resistance Class 1 (ASTM E84)
- Color White, light grey and black

SQUARELINE Sound Absorption
Test ASTM C423-90a; Mounting Type E

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>Fleece Acoustical Backer*</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>0.37</td>
</tr>
<tr>
<td>250</td>
<td>0.59</td>
</tr>
<tr>
<td>500</td>
<td>0.30</td>
</tr>
<tr>
<td>1000</td>
<td>0.50</td>
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<tr>
<td>2000</td>
<td>0.75</td>
</tr>
<tr>
<td>4000</td>
<td>1.09</td>
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<tr>
<td>NRC</td>
<td>0.55</td>
</tr>
</tbody>
</table>

*wilttec® acoustical backer in light grey or charcoal is also available.
SQUARELINE® Metal Ceiling Tiles
Pattern Information

■ SQUARELINE Standard Chrome Metal with White, Light Grey or Black Fleece Backer
■ SQUARELINE Standard White Metal with White, Light Grey or Black Fleece Backer
■ SQUARELINE Standard Black Metal with White, Light Grey or Black Fleece Backer

■ SQUARELINE Medium Chrome Metal with White, Light Grey or Black Fleece Backer
■ SQUARELINE Medium White Metal with White, Light Grey or Black Fleece Backer
■ SQUARELINE Medium Black Metal with White, Light Grey or Black Fleece Backer

■ SQUARELINE Ultra Chrome Metal with White, Light Grey or Black Fleece Backer
■ SQUARELINE Ultra White Metal with White, Light Grey or Black Fleece Backer
■ SQUARELINE Ultra Black Metal with White, Light Grey or Black Fleece Backer

Colors do not necessarily reflect the actual color of the product. For product samples, call or e-mail us.
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.
   4. Division 21 – Fire Suppression.
   5. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.

1.2 SYSTEM DESCRIPTION
A. Acoustical Performance Requirements:

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-resistant 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 49th 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 m³).
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.

EDIT NOTE: RETAIN FOAM COLOR ABOVE OR BELOW.

EDIT NOTE: RETAIN METAL PANEL COLOR ABOVE OR BELOW.
12. Open Area: 68.2 percent.
13. Weight: 0.6 pounds per square foot (2.5 kg per m²).

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


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 m³).
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.

EDIT NOTE: RETAIN FOAM COLOR ABOVE OR BELOW.
10. Foam Color: Charcoal.
12. Open Area: 62.5 percent.
13. Weight: 1.3 pounds per square foot (5.9 kg per m²).

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

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 m³).
   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.

EDIT NOTE: RETAIN FOAM COLOR ABOVE OR BELOW.
   14. Open Area: 71.4 percent.
   15. Weight: 1.5 pounds per square foot (6.7 kg per m²).

<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 inch (6.4 mm) thick</td>
<td>0.37</td>
<td>0.59</td>
<td>0.30</td>
<td>0.50</td>
<td>0.75</td>
<td>1.09</td>
<td>0.55</td>
</tr>
</tbody>
</table>


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.
CONTOUR® Ceiling Tiles
Product Information

CONTOUR tiles add distinction, value and outstanding acoustical control to offices, call centers, lobbies, entertainment facilities, conference and board rooms, retail stores, lodging and healthcare facilities, among others.

pinta’s CONTOUR tiles are available for ceiling grid and adhesive applications. The ceiling grid tiles have a backerboard that blocks sound from traveling into adjacent rooms. Tiles without a backerboard easily install using acouSTIC adhesive.

These premium ceiling tiles come in several subtle to dramatic sculpted designs that can be easily mixed and matched to create a unique look. Custom patterns, including corporate logos, and color matching are also available for creating a breathtaking signature ceiling. With CONTOUR Ceiling Tiles, you are only limited by your imagination.

CONTOUR tiles with a backerboard have a ceiling attenuation class (CAC) of 34 to help contain sound – making them ideal for applications requiring additional privacy. Both the adhesive and ceiling grid CONTOUR tiles provide exceptional sound absorption and have Noise Reduction Coefficients (NRC) up to 1.20, depending on the pattern chosen.

Manufactured from pinta’s willtec® foam, CONTOUR tiles also maintain their integrity in moist or humid environments without sagging. With a unique HPC-coated surface – available in arctic white, black onyx, grey mist and almond – CONTOUR tiles are durable and simple to clean with a damp cloth.

Superior style and excellent performance – CONTOUR tiles are simply the ultimate in ceiling design.
**Material**

CONTOUR® tiles are made from pinta's innovative willtec® foam. willtec is a lightweight, open-cell, melamine foam that provides excellent acoustical control. CONTOUR tiles have a HPC-coated surface. Tiles for drop-in grid applications are backed with a sag-resistant 3/8" backerboard.

**Installation**

- Quickly drops into ceiling grids, or simply glues onto existing, clean surfaces.
- Cross-tees facilitate retrofitting of 24" x 48" lay-in panels.

**Other Products**

pinta acoustic, inc. manufactures a broad range of acoustical materials including:

- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- FABRITEC Wall Panels
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pinta Ceiling Grid Systems

**Physical Data—willtec foam**

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<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Material</td>
<td>Open-cell melamine-based foam</td>
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<tr>
<td>Density</td>
<td>0.5 to 0.7 lbs./cu. ft. (ASTM D3574-77)</td>
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<tr>
<td>Long-Term Service Temperature</td>
<td>302°F</td>
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<tr>
<td>Fire Resistance</td>
<td>Class 1 per ASTM E 84</td>
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<tr>
<td>Flame Spread per ASTM E 84</td>
<td>HPC-coated: 15</td>
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<tr>
<td>Smoke Density per ASTM E 84</td>
<td>HPC-coated: 150</td>
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<tr>
<td>Microbial Growth</td>
<td>Passes UL 181, section 11</td>
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<tr>
<td>Fungus Resistance</td>
<td>Rating #0 per ASTM G21</td>
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<tr>
<td>Finish</td>
<td>HPC-coated</td>
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**CONTOUR Tiles Sound Absorption — Adhesive Installation**

<table>
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<tr>
<th>Frequency (Hz)</th>
<th>Basix 1 1&quot; Thick</th>
<th>Basix 2 1 3/4&quot; Thick</th>
<th>All Patterns 1 3/4&quot; Thick</th>
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<tr>
<td>125</td>
<td>0.12</td>
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<td>250</td>
<td>0.24</td>
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<tr>
<td>500</td>
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<td>0.93</td>
<td>0.71</td>
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<td>1000</td>
<td>0.89</td>
<td>1.09</td>
<td>0.96</td>
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<tr>
<td>2000</td>
<td>0.96</td>
<td>1.09</td>
<td>1.00</td>
</tr>
<tr>
<td>4000</td>
<td>0.99</td>
<td>1.04</td>
<td>0.99</td>
</tr>
<tr>
<td>NRC</td>
<td>0.65</td>
<td>0.90</td>
<td>0.75</td>
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**CONTOUR Tiles Sound Absorption — Grid Installation**

<table>
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<tr>
<th>Frequency (Hz)</th>
<th>Basix 1 1 3/4&quot; Thick</th>
<th>Basix 2 2 1/2&quot; Thick</th>
<th>All Patterns 2 1/2&quot; Thick</th>
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</thead>
<tbody>
<tr>
<td>125</td>
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<td>0.43</td>
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<td>250</td>
<td>0.54</td>
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<td>500</td>
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<td>1.36</td>
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</tr>
<tr>
<td>NRC</td>
<td>0.95</td>
<td>1.20</td>
<td>1.10</td>
</tr>
</tbody>
</table>
CONTOUR® Ceiling Tiles
Pattern Information

- Basix 1 & 2
- Classic
- TriLine
- TriLine Corner
- Matrix 2*
- Matrix 4*
- Matrix 6*
- Allusion
- Horizon
- Panorama
- Spectrum
- Crosspoint
- Mosaic
- Vision

Standard colors include Almond, Arctic White, Black Onyx and Grey Mist. Custom patterns and colors are available upon request.

* Not available in adhesive-mount version.
PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

EDIT NOTE: DELETE THE FOLLOWING PANEL TYPES NOT REQUIRED FOR PROJECT.

1. Patterned lay-in-applied acoustical ceiling panels.
2. Patterned adhesive-applied acoustical ceiling panels.
3. Flat designed lay-in-applied acoustical ceiling panels.
4. Flat designed adhesive-applied acoustical ceiling panels.
5. Custom designed lay-in -applied acoustical ceiling panels.
6. Custom designed adhesive-applied acoustical ceiling panels.

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.
4. Division 21 – Fire Suppression.
5. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.

1.2 SYSTEM DESCRIPTION

A. Acoustical Performance Requirements:


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-resistant 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 SCHEDULING
   A. Do not install acoustical ceilings until work in plenum space is completed, tested, and approved.

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

1.9 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 49th 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
2.2 MANUFACTURED UNITS

EDIT NOTE: SELECT THE FOLLOWING SYSTEM FOR LAY-IN INSTALLED PANELS.

A. Acoustical Ceiling Panels: Sag resistant acoustical foam panel consisting of lightweight, open-cell willtec® foam core, with applied HPC finish surface, adhered to 3/8 inch (9.5 mm) foil backed, honeycomb substrate.

willtec foam physical properties
1. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m$^3$).
2. Tensile Strength: 8 psi (0.06 MPa).
3. Flammability: Class 1 per ASTM E84.
6. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).

RETAIN THE FOLLOWING PANEL THICKNESS FOR PATTERNED PANELS AND BASIX 2 PANELS.

7. Panel Thickness: 2-1/8 inches (54 mm) total thickness.

RETAIN THE FOLLOWING PANEL THICKNESS FOR BASIX 1 PANELS.

8. Panel Thickness: 1-3/8 inches (35 mm) total thickness.

EDIT NOTE: SELECT ONE OR MORE OF THE FOLLOWING PATTERNS, FLAT DESIGNS, OR CUSTOM DESIGN. DELETE DESIGNS NOT REQUIRED FOR PROJECT.

17. Patterned Design: Classic.
22. Flat Design: Basix 1.
23. Flat Design: Basix 2.
24. Custom Design: Provide custom CNC routing of patterns, images, and designs as indicated on Drawings.

EDIT NOTE: SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT. HPC IMPROVES STAIN RESISTANCE AND CLEANABILITY. MINIMUM ORDERS AND LONGER LEAD TIME MAY APPLY FOR CUSTOM COLORS.

25. Finish: Provide panels in the following HPC-coated finish:
   a. Finish: Arctic White.
   b. Finish: Black Onyx.
   c. Finish: Grey Mist.
   d. Finish: Graphite.
   e. Finish: Sky.
g. Finish: Almond.

h. Finish: Custom color.


27. Sound Absorption Coefficients: Type E mountings (16 inch air space), ASTM C423-90a.

<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basix 1:</td>
<td>0.63</td>
<td>0.54</td>
<td>0.81</td>
<td>1.24</td>
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<td>Basix 2:</td>
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<tr>
<td>Patterns</td>
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<td>1.33</td>
<td>1.43</td>
<td>1.56</td>
<td>1.10</td>
</tr>
</tbody>
</table>


EDIT NOTE: SELECT THE FOLLOWING SYSTEM FOR ADHESIVE APPLIED PANELS.

B. Acoustical Ceiling Panels: Acoustical foam panel consisting of lightweight, open-cell willtec® foam core, with applied HPC finish surface.

willtec foam physical properties
1. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
2. Tensile Strength: 8 psi (0.06 MPa).
3. Flammability: Class 1 per ASTM E84.
6. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).

EDIT NOTE: RETAIN THE FOLLOWING PANEL THICKNESS FOR PATTERNED PANELS AND BASIX 2 PANELS.

7. Panel Thickness: 1-3/4 inches (44 mm) total thickness.

EDIT NOTE: RETAIN THE FOLLOWING PANEL THICKNESS FOR BASIX 1 PANELS.

8. Panel Thickness: 1 inch (25 mm) total thickness.

EDIT NOTE: SELECT ONE OR MORE OF THE FOLLOWING PATTERNS, FLAT DESIGNS, OR CUSTOM DESIGN. DELETE DESIGNS NOT REQUIRED FOR PROJECT.

17. Patterned Design: Classic.
22. Flat Design: Basix 1.
23. Flat Design: Basix 2.
24. Custom Design: Provide custom CNC routing of patterns, images, and designs as indicated on Drawings.
25. Finish: Provide panels in the following HPC-coated finish:
   a. Finish: Arctic White.
   b. Finish: Black Onyx.
   c. Finish: Grey Mist.
   d. Finish: Almond.
   e. Finish: Custom color.


<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>NRC</th>
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<tbody>
<tr>
<td>Basix 1:</td>
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<td>0.96</td>
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<tr>
<td>Basix 2:</td>
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<td>1.09</td>
<td>1.09</td>
<td>1.04</td>
<td>0.90</td>
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<tr>
<td>Patterns:</td>
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<td>0.71</td>
<td>0.96</td>
<td>1.00</td>
<td>0.99</td>
<td>0.75</td>
</tr>
</tbody>
</table>


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.]

EDIT NOTE: RETAIN THE FOLLOWING ACCESSORIES ARTICLE WHEN INSTALLING PANELS WITH ADHESIVE. DELETE THIS ARTICLE FOR LAY-IN PANEL APPLICATIONS.

2.4 ACCESSORIES

A. Adhesive: Non-toxic, water-based adhesive, for use with foam products.
   1. pinta acouSTIC adhesive or approved substitute.

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.

EDIT NOTE: USE THE FOLLOWING PREPARATION ARTICLE FOR ADHESIVE APPLIED INSTALLATIONS ONLY.

3.2 PREPARATION

A. Prior to installing ceiling panels, make certain that surfaces to which adhesive will be applied are clean and free of dust, dirt, and other residues that would inhibit a proper bond.
3.3 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.

OR

C. Suspension System: [Architect to insert acoustical tile ceiling system suspension system installation requirements here.]

D. Acoustical Panels:
   1. Refer to manufacturer’s written installation instructions.

EDIT NOTE: USE THE FOLLOWING THREE PARAGRAPHS FOR ADHESIVE APPLIED INSTALLATION.
   2. Cut adhesive tube end to produce a 1/4 inch (6.4 mm) bead.
   3. Apply adhesive to panels per manufacturer's recommended pattern and press panel firmly into place per manufacturer's installation requirements.
   4. Install panels true to lines and plane indicated.

EDIT NOTE: USE THE FOLLOWING PARAGRAPH FOR LAY-IN APPLIED INSTALLATION.
   5. Install lay-in acoustical ceiling panels flush and level in suspension system.
   6. Basix panels (non-patterned panels): Use straight edge to cut panels to fit.
      a. Sculpted Panels: Manufacturer recommends use of Basix style where non-full sized panels occur.

EDIT NOTE: CUTTING OF SCULPTED PANELS MAY BE DONE, HOWEVER STRAIGHT CUT PANELS AT WALL IS RECOMMENDED. BECAUSE OF THE FINISH SURFACE, DO NOT ATTEMPT TO BEVEL CUT SCULPTED PANELS. CONSULT MANUFACTURER FOR SPECIFIC CUTTING INSTRUCTIONS.
   7. Install panels with hand protection to avoid soiling.
   8. Install panels having directional pattern or to conform to custom design.
   9. Press panels from above to set into grids. Do not pull from face.

3.4 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.
HARMONI Ceiling Tiles

Product Information

- Smooth or softly sculpted patterns
- Contemporary flair
- Exceptional acoustical performance
- Mold-resistant, fire-retardant

HARMONI Ceiling Tiles are the natural choice when you’re looking for a way to combine contemporary styling with excellent acoustical control at a moderate price. They’re a perfect solution for classrooms, offices, conference rooms, listening rooms, home theaters, retail stores, corridors and any other interior area where ceiling tiles are used.

HARMONI Ceiling Tiles are built from lightweight willtec® foam, making for easy installation and excellent sound absorption across all frequencies. The tiles are available in two styles, each with a tegular edge. The VISTA pattern has a smooth surface for a clean look while the TARTAN pattern provides a softly sculpted style. HARMONI tiles are HPC-coated in white, black, light grey or almond for easy cleaning and durability. Since HARMONI Ceiling Tiles are naturally mold-resistant and fire-retardant, extra protective coatings are not needed.

If you’re looking for aesthetic flair, sound absorption and functionality at an affordable price, HARMONI Ceiling Tiles are designed to deliver. Their combined attributes make them a unique and welcome architectural option.
Material
HARMONI Ceiling Tiles are made from pintal’s willtec® foam, a lightweight, open-cell melamine foam that provides excellent acoustical control. HARMONI Ceiling Tiles also have a HPC-coated surface that adds durability, prevents dirt/dust penetration and easily wipes clean with a damp cloth.

Size
- Fits all 15/16” grid systems
- Panels: 24” x 24” dimension
- Thickness: 2”

Installation
- Quickly drops into pintal or any ceiling grid system
- Cross-tees facilitate retrofitting of 24” x 48” ceiling tiles
- Use clean gloves to prevent soiling tiles
- Maintain uniform temperature of minimum 60° F and maximum humidity of 40% prior to, during and after installation
- Press panels from above to set into grids (do not pull from face)

Other Products
pintal acoustic, inc. manufactures a broad range of acoustical materials including:
- CONTOUR® Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- FABRITEC Wall Panels
- PHONSTOP® Ceiling and Wall Tiles
- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pintal Ceiling Grid Systems

Physical Data—willtec Foam

<table>
<thead>
<tr>
<th>Material</th>
<th>Open-cell melamine-based foam</th>
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<tbody>
<tr>
<td>Density</td>
<td>0.5 to 0.7 lbs./cu. ft. (ASTM D3574-77)</td>
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<tr>
<td>Long-Term Service Temperature</td>
<td>302° F</td>
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<tr>
<td>Fire Resistance</td>
<td>Class 1 per ASTM E 84</td>
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<tr>
<td>Flame Spread per ASTM E 84</td>
<td>HPC-coated: 15</td>
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<tr>
<td>Smoke Density per ASTM E 84</td>
<td>HPC-coated: 150</td>
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<tr>
<td>Microbial Growth</td>
<td>Passes UL 181, section 11</td>
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<td>Fungus Resistance</td>
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<td>Finish</td>
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Sound Absorption Test ASTM C423-90a; Mounting Type E

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>2” Thickness</th>
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<tbody>
<tr>
<td>125</td>
<td>0.89</td>
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<tr>
<td>250</td>
<td>0.84</td>
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<tr>
<td>500</td>
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<td>1000</td>
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<td>2000</td>
<td>1.05</td>
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<tr>
<td>4000</td>
<td>1.00</td>
</tr>
<tr>
<td>NRC</td>
<td>0.90</td>
</tr>
</tbody>
</table>
SECTION 09 51 00
HARMONI Acoustical Ceiling Panels

PART 1 - GENERAL

1.1 SUMMARY
   A. Section Includes:
      1. Lightweight lay-in-applied acoustical ceiling panels.
   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.
   4. Division 21 – Fire Suppression.
   5. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.

1.2 SYSTEM DESCRIPTION
   A. Acoustical Performance Requirements:

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-resistant 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 49th Avenue North, Ste. 400
      Minneapolis, Minnesota  55430
      Telephone: 800-662-0032
                 612-520-3620
      Fax: 612-521-5639
      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
A. Acoustical Ceiling Panels: Acoustical foam panel consisting of lightweight, open-cell willtec® foam, with applied HPC finish surface:
   1. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
   2. Tensile Strength: 8 psi (0.06 MPa).
   3. Elongation: 8 percent per ASTM D3574-77
   4. Fire resistance: Class 1 per ASTM E84.
   5. Flame Spread: 15.
7. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
8. Panel Thickness: 2 inch (51 mm) total thickness.

EDIT NOTE: SELECT ONE OF THE FOLLOWING PATTERNS. DELETE DESIGNS NOT REQUIRED FOR PROJECT.

11. Edge: Square Tegular.

EDIT NOTE: SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT. HPC IMPROVES STAIN RESISTANCE AND CLEANABILITY. MINIMUM ORDERS AND LONGER LEAD TIME MAY APPLY FOR CUSTOM COLORS.

13. Finish: Provide panels in the following HPC-coated finish:
   b. Finish: Black.
   c. Finish: Light Grey.
   d. Finish: Medium Grey.
   e. Finish: Light Blue.
   g. Finish: Almond.
   h. Finish: Applied custom color.


<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 inch:</td>
<td>0.89</td>
<td>0.84</td>
<td>0.78</td>
<td>1.02</td>
<td>1.05</td>
<td>1.00</td>
<td>0.90</td>
</tr>
</tbody>
</table>


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.

EDIT NOTE: USE THE FOLLOWING PREPARATION ARTICLE FOR ADHESIVE APPLIED INSTALLATIONS ONLY.

3.2 PREPARATION

A. Prior to installing ceiling panels, make certain that surfaces to which adhesive will be applied are clean and free of dust, dirt, and other residues that would inhibit a proper bond.
3.3 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.

OR

C. Suspension System: [Architect to insert acoustical tile ceiling system suspension system installation requirements here.]

D. Acoustical Panels:
   1. Refer to manufacturer’s written installation instructions.
   2. Install lay in acoustical ceiling panels flush and level in suspension system.
   3. Install panels with hand protection to avoid soiling.
   4. Press panels from above to set into grids. Do not pull from face.

3.4 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.
WHITELINE® Ceiling Tiles

Product Information

WHITELINE Ceiling Tiles have a distinctive smooth finish that is a total departure from the ceiling tiles of the past. Tiles feature white fleece laminated to one surface and black on the reverse surface. The white side has a high light reflectancy (0.89). Both colors are ideal for offices, schools, churches, conference rooms and virtually any application.

Built from a unique willtec® foam core, WHITELINE tiles are lightweight, guaranteed not to sag and offer superb sound absorption. They are available in a variety of dimensions ranging from 24" x 24" up to 48" x 96" and everything in-between. WHITELINE tiles can be installed with pinta’s ceiling grid or any conventional suspension grid.

WHITELINE’s unique appearance and custom dimensions provide a beautiful option for today’s ceilings.
Material

WHITELINE® tiles are made from pinta’s innovative willtec® foam. willtec is a lightweight, open-cell, melamine foam that provides excellent acoustical control. White fleece is laminated to one surface with black fleece on the reverse surface.

Dimensions

- 24” x 24” x 0.6”
- 24” x 48” x 0.6”
- 48” x 48” x 0.6”
- 48” x 96” x 0.6”
- Other dimensions upon request

Installation

- WHITELINE Ceiling Tiles can be installed into pinta’s or any ceiling grid systems
- Handle with clean, white cotton gloves only
- WHITELINE Ceiling Tiles are easily cut with a utility knife

Other Products

pinta acoustic, inc. manufactures a broad range of acoustical materials, including:

- CONTOUR® Ceiling Tiles
- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- FABRITEC Wall Panels
- PHONSTOP™ Ceiling and Wall Tiles
- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pinta Ceiling Grid Systems

Sound Absorption

Test ASTM C423-90a; Mounting Type E

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<th>Frequency (Hz)</th>
<th>0.6” Thickness</th>
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<tr>
<td>250</td>
<td>0.60</td>
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<tr>
<td>500</td>
<td>0.64</td>
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<tr>
<td>1000</td>
<td>0.80</td>
</tr>
<tr>
<td>2000</td>
<td>0.91</td>
</tr>
<tr>
<td>4000</td>
<td>1.02</td>
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<tr>
<td>NRC</td>
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Physical Data — willtec foam

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<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Tensile Strength</td>
<td>8 PSI (ASTM D3574-77)</td>
</tr>
<tr>
<td>Density</td>
<td>0.7 lbs./cu. ft.</td>
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<tr>
<td>Elongation</td>
<td>8% (ASTM D3574-77)</td>
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<tr>
<td>Heat Conductivity</td>
<td>K factor = 0.24 at 50°F</td>
</tr>
<tr>
<td>Long-Term Service Temperature</td>
<td>302°F</td>
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<tr>
<td>Fire Resistance</td>
<td>Class 1 (ASTM E84)</td>
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<tr>
<td>Flame Spread per ASTM</td>
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<td>Smoke Density per ASTM</td>
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<td>Color</td>
<td>White/Black</td>
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04/09 pinta acoustic, inc. is a company of pinta elements GmbH.
SECTION 09 51 00
WHITELINE® Acoustical Ceiling Panels

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Lightweight lay-in-applied acoustical ceiling panels.

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.
4. Division 21 – Fire Suppression.
5. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.

1.2 SYSTEM DESCRIPTION

A. Acoustical Performance Requirements:

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-resistant 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:
   pintacoustic, inc.
   2601 49th Ave. N. Suite #400
   Minneapolis, MN 55430 USA
   Toll-Free: (800) 662-0032 (US and Canada only)
   Tel: +1 (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
A. Acoustical Ceiling Panels: Sag-resistant foam panel consisting of lightweight, open-cell willtec® foam, laminated on one side with white fleece and the reverse with black.
   1. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
   2. Tensile Strength: 8 psi (0.06 MPa).
   3. Elongation: 8 percent per ASTM D3574-77
   4. Fire resistance: Class 1 per ASTM D3574-77
   5. Flame Spread: 0.
7. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).
8. Size: Nominal 24 inch by 48 inch (610 mm by 1219 mm).
9. Size: Nominal 48 inch by 48 inch (1219 mm by 1219 mm).
10. Size: Nominal 48 inch by 96 inch (1219 mm by 2438 mm).
11. Size: Custom sizes indicated on Drawings.
12. Panel Thickness: 0.6 inch (15 mm) total thickness.

EDIT NOTE: SELECT ONE OF THE FOLLOWING PATTERNS. DELETE DESIGNS NOT REQUIRED FOR PROJECT.
13. Edge: Square Lay-In.
15. Finish: White/Black.

EDIT NOTE: SELECT PANEL COLOR ABOVE OR BELOW. DELETE PANEL COLOR NOT REQUIRED FOR PROJECT.

<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
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<td>0.6 inch:</td>
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<td>0.80</td>
<td>0.91</td>
<td>1.02</td>
<td>0.75</td>
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</table>


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. Acoustical Panels:
   1. Refer to manufacturer’s written installation instructions.
   2. Install lay-in acoustical ceiling panels flush and level in suspension system.
   3. Install panels with hand protection to avoid soiling.
   4. 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.
pinta Ceiling Grid System
Product Information

Now you can have a ceiling grid system that blends beautifully with pinta’s or standard ceiling tiles. pinta’s Ceiling Grid System is offered in colors that complement the HPC coating or natural finish of our HARMONI, CONTOUR® and WHITELINE® Ceiling Tiles as well as our SQUARELINE® Metal Ceiling Tiles, BIOLINE® Wood Ceiling Tiles, PHONSTOP® Ceiling Tiles and SONEX® Clean Ceiling Tiles. Standard colors include white, almond, grey, satin chrome and black. Custom colors are also available.

Our commercial-quality ceiling grid system features standard 15/16” capped grid face and a double web design for added strength. It is also easy to install.

Part Selections
- 8’ Main runners
- 4’ High profile cross-tees
- 2’ High profile cross-tees
- 8’ Wall angle moldings
- 12’ Main runners and wall angle moldings are available special order

Features and Benefits
- Intermediate ASTM load-bearing capabilities
- Main runners have non-directional bayonet couplings
- Integral cross-tee end tabs for positive locking and easy disassembly
- Stepped-end cross-tee design resists twisting and provides finished appearance
- Components feature hot-dipped galvanized steel web and capped face for superior corrosion resistance
- All components – main runners and high-profile cross-tees – are manufactured from the same metal for superior strength and stability
- Meets or exceeds building code requirements including Seismic Zones 0-2
- Apply in any area where a drop-in ceiling is desired

Colors compliment pinta acoustic’s ceiling tiles
Double web construction for durability
Versatile and easy to install
Colors
- White
- Almond
- Grey
- Satin chrome
- Black
- Custom colors are available
  (minimum quantities may apply)

Materials
- Hot-dipped galvanized steel
- Painted face
- Sturdy double-web construction
- Standard 15/16” capped grid face

Specifications

<table>
<thead>
<tr>
<th>Product</th>
<th>Length</th>
<th>Nominal Dimensions</th>
<th>Face</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Runners</td>
<td>8’</td>
<td>1 1/2”</td>
<td>15/16”</td>
</tr>
<tr>
<td>Cross-tees</td>
<td>2’</td>
<td>1 1/2”</td>
<td>15/16”</td>
</tr>
<tr>
<td></td>
<td>4’</td>
<td>1 1/2”</td>
<td>15/16”</td>
</tr>
<tr>
<td>Wall Moldings</td>
<td>8’</td>
<td>7/8”</td>
<td>7/8”</td>
</tr>
</tbody>
</table>

Other Products
pinta acoustic, inc. manufactures a broad range of acoustical materials including:
- CONTOUR® Ceiling Tiles
- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- FABRITEC Wall Panels
- PHONSTOP™ Ceiling and Wall Tiles
- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pinta Ceiling Grid Systems
SECTION 09 53 00
Ceiling Grid System

PART 1 - GENERAL

1.1 SUMMARY
   A. Section Includes:
      1. Painted steel lay-in ceiling grid system.
   B. Related Sections:

EDIT NOTE: ADD OR DELETE SECTIONS PER PROJECT REQUIREMENTS.
   1. Section 09 53 00 – Acoustical Ceiling Suspension Systems.
   2. Section 09 21 16 – Gypsum Board Assemblies.
   3. Division 21 – Fire Suppression.
   4. Division 23 – Mechanical. Diffusers, vents, and other mechanical items.
   5. Division 26 – Electrical. Lights and other ceiling mounted electrical items.

1.2 SUBMITTALS
   A. Comply with Section 01 33 00 – Submittal Procedures.
   B. Coordination Drawings: Drawn to scale and coordinating penetrations and ceiling-mounted items.
      Show the following:

EDIT NOTE: EDIT SUBPARAGRAPHS BELOW TO SUIT PROJECT.
   1. Ceiling suspension assembly members.
   2. Method of attaching hangers to building structure.
   3. Ceiling-mounted items including lighting fixtures, diffusers, grilles, speakers, sprinklers, access panels, and special moldings.
   C. 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.

1.3 QUALITY ASSURANCE
   A. Single Source Responsibility: Obtain ceiling grid system for entire Project from a single manufacturer.
   B. Manufacturer's Qualifications: Firm with not less than 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.

1.4 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.

1.5 PROJECT CONDITIONS

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

1.6 WARRANTY

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

1.7 MAINTENANCE

A. Extra Materials:
   1. Deliver not less than the following quantity of each grid system component.

EDIT NOTE: RETAIN AMOUNT OF EXTRA MATERIALS USED ON PROJECT. DELETE THIS ARTICLE OF 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 49th 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 SUSPENSION SYSTEM

EDIT NOTE: DELETE SEISMIC OPTION IN PARAGRAPH BELOW IF NOT REQUIRED FOR PROJECT.

A. Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations[that comply with seismic design requirements;] formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension system runners.

B. Exposed Grid Suspension Systems – General: Double-web steel suspension system, with main and cross runners roll formed from commercial quality cold-rolled steel sheet, hot-dip galvanized per
ASTM A653/A653M, not less than G30 coating designation, with prefinished metal caps on flanges in widths indicated below.
2. Cap Finish: Manufacturer's baked polyester finish in color indicated below.
3. System: 15/16 inch (24 mm) exposed Tee grid.

EDIT NOTE: DELETE THE FOLLOWING COLORS NOT REQUIRED FOR PROJECT.
10. Color: Custom colors available through manufacturer.

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 ceiling grid system:
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.

3.3 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
FABRITEC Wall Panels
Product Information

With a custom look, durable construction and excellent sound-absorbing characteristics, our FABRITEC Wall Panels easily add style and performance to schools, religious facilities, gymnasiums, restaurants, offices, auditoriums, lobbies and other noisy open areas.

Available in custom and standard sizes, FABRITEC Wall Panels create a design that perfectly fits your space. Select from hundreds of fashionable fabrics, including Guilford, Maharam and others.

FABRITEC Wall Panels are just as easy to install as they are to specify. Built from a unique willtec® foam core, they offer outstanding acoustical performance, absorbing up to 85% of the sound directed at them. FABRITEC Wall Panels are lightweight, making them easy to install with adhesive and/or hook and loop. They are also impact resistant and have a tackable surface.

FABRITEC Wall Panels are the superior solution for adding texture, color and acoustical balance to your designs.
Material

FABRITEC Wall Panels consist of a willtec® foam core and a rugged, tackable exterior covered with a variety of fabrics.
- willtec is an open-cell, melamine foam that provides sound absorption comparable to bagged fibrous products, but with less material, thickness and weight
- FABRITEC’s tackable and impact-resistant surface is made from a lightweight, yet strong 1/16" fiberglass substrate

Panel Dimensions

- 24" x 24", 24" x 48" or custom sizing
- 1", 1 1/2" or custom thickness

Installation

- Panels attach in seconds to existing, clean surfaces with adhesive and/or hook and loop
- See installation guide

Accessories

pinta’s acouSTIC foam adhesive provides a quick, solid bond for installing FABRITEC Wall Panels. acouSTIC and other mounting materials are priced separately and supplied on request.

Physical Data — willtec foam

<table>
<thead>
<tr>
<th>Material</th>
<th>Open-cell melamine-based foam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>0.5 to 0.7 lbs./cu. ft. (ASTM D3574-77)</td>
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<tr>
<td>Long-Term Service Temperature</td>
<td>302° F</td>
</tr>
<tr>
<td>Fire Resistance</td>
<td>Class 1 per ASTM E 84</td>
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<tr>
<td></td>
<td>Meets UL 1715 (willtec natural)</td>
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<tr>
<td>Flame Spread per ASTM E 84</td>
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<tr>
<td>Smoke Density per ASTM E 84</td>
<td>Natural: 50</td>
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<tr>
<td>Microbial Growth</td>
<td>Passes UL 181, section 11</td>
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<tr>
<td>Fungus Resistance</td>
<td>Rating #0 per ASTM G21</td>
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<tr>
<td>Finishes</td>
<td>Fabric</td>
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</tbody>
</table>

Sound Absorption

Test ASTM C423-99a; Mounting Type D, 1" Thick Panel, Guilford Fabric

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>Absorption Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>0.18</td>
</tr>
<tr>
<td>250</td>
<td>0.68</td>
</tr>
<tr>
<td>500</td>
<td>0.95</td>
</tr>
<tr>
<td>1000</td>
<td>0.92</td>
</tr>
<tr>
<td>2000</td>
<td>0.78</td>
</tr>
<tr>
<td>4000</td>
<td>0.67</td>
</tr>
<tr>
<td>NRC</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Other Products

pinta acoustic, inc. manufactures a broad range of acoustical materials including:
- CONTOUR® Ceiling Tiles
- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pinta Ceiling Grid Systems
PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Fabric-wrapped, tackable, and impact-resistant acoustical wall panels with willtec® foam core.

B. Related Sections:

EDIT NOTE: ADD OR DELETE SECTIONS PER PROJECT REQUIREMENTS.

1. Section 03 38 00 – Post-Tensioned Concrete.
2. Section 03 41 00 – Plant-Precast Structural Concrete.
3. Section 03 41 13 – Precast Concrete Hollow Core Planks.
4. Section 05 21 00 – Steel Joist Framing.
5. Section 05 31 00 – Steel Decking.
6. Section 06 15 00 – Wood Decking.
7. Section 06 17 53 – Shop-Fabricated Wood Trusses
10. Section 09 21 16 – Gypsum Board Assemblies.

1.2 SYSTEM DESCRIPTION

A. Acoustical Performance Requirements:

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-resistant
   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 49th 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

A. Fabric-Wrapped Acoustical Wall Panels: Wall panels consisting of lightweight, open-cell willtec® foam core with fabric-wrapped, impact-resistant, tackable surface, meeting the following requirements:
1. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
2. Tensile Strength: 8 psi (0.06 MPa).
3. Elongation: 8 percent per ASTM D3574-77.
4. Flammability: Class 1 per ASTM E84.
5. Size: Nominal 24 inch by 24 inch (610 mm by 610 mm).

EDIT NOTE: SELECT PANEL SIZE ABOVE OR BELOW. DELETE SIZE NOT REQUIRED FOR PROJECT.
6. Size: Nominal 24 inch by 48 inch (610 mm by 1219 mm).
7. Size: Custom size per Drawings.
8. Panel Thickness: 1 inch (25 mm) total thickness.

EDIT NOTE: SELECT PANEL THICKNESS ABOVE OR BELOW. DELETE THICKNESSES NOT REQUIRED FOR PROJECT.
10. Panel Thickness: 2 inches (102 mm).
11. Panel Thickness: 1-3/4 inches (44 mm) total thickness.

EDIT NOTE: SELECT PANEL EDGE ABOVE OR BELOW. DELETE EDGE NOT REQUIRED FOR PROJECT.
15. Tackable surface: 1/16 inch (1.6 mm) thick fiberglass substrate.

EDIT NOTE: PANEL COVERING SELECTED BY ARCHITECT. SELECT COVERING AND INSERT PRODUCT INFORMATION BELOW. DELETE COVERINGS NOT REQUIRED FOR PROJECT.

EDIT NOTE: PANEL PATTERN SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL PATTERN SELECTIONS.
20. Pattern Number. Architect will select from manufacturer’s standard products.

<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 inch thick panel</td>
<td>0.18</td>
<td>0.68</td>
<td>0.95</td>
<td>0.92</td>
<td>0.78</td>
<td>0.67</td>
<td>0.85</td>
</tr>
</tbody>
</table>


2.3 ACCESSORIES

EDIT NOTE: SELECT APPROPRIATE MOUNTING SYSTEM.

A. Adhesive: Non-toxic, water-based adhesive, for use with foam products.
1. pinta AcouSTIC™ foam adhesive or approved substitute.

B. Mechanically Mounted Panels: Manufacturer-installed concealed splines mounted to panel.

C. Mechanically Mounted Panels: Manufacturer-installed Z-clips mounted to panel.
D. **Hook and Loop**: Manufacturer-installed loop-side fastener attached to panels, shipped with accompanying hook-side fastener with tape adhesive for wall installation.

**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.

EDIT NOTE: USE THE FOLLOWING PREPARATION ARTICLE FOR ADHESIVE APPLIED INSTALLATIONS ONLY.

3.2 **PREPARATION**

A. Prior to installing ceiling panels, make certain that surfaces to which adhesive will be applied are clean and free of dust, dirt, and other residues that would inhibit a proper bond.

3.3 **INSTALLATION**

A. Comply with manufacturer’s instructions and recommendations for panel installation.

EDIT NOTE: SELECT THE NEXT THREE PARAGRAPHS FOR ADHERED APPLICATIONS.

B. Cut adhesive tube end to produce a 1/4 inch (6.4 mm) bead.

C. Apply adhesive to panels per manufacturer's recommended pattern and press panel firmly into place per manufacturer’s installation requirements.

D. Install panels true to lines and plane indicated.

EDIT NOTE: SELECT THE NEXT PARAGRAPH FOR METAL CLIP APPLICATIONS.

E. Comply with panel manufacturer's written instructions for installation of panels using type of mounting accessories indicated or, if not indicated, as recommended by manufacturer.

3.4 **CLEANING**

A. Clean adjacent surfaces and remove unused product and debris from site.

B. After installation is completed, clean soiled surfaces of materials per panel manufacturer's recommendations.

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 pintacoustic, inc.
SONEX® Clean Baffles, Panels and Ceiling Tiles

Product Information

- Washable, cleanable and durable
- Sound absorption to reduce reverberation or echo
- Easy-to-install ceiling tiles, wall panels and baffles
- willtec® core is Class 1 fire-rated

SONEX Clean products are designed for environments that require noise control with durable, washable and cleanable materials. The baffles, panels and ceiling tiles are ideal for use in a variety of applications, including bottling and food processing plants, clean rooms and food preparation areas. SONEX Clean products meet USDA/FDA requirements.

The products are fully encapsulated in FR taffeta vinyl for efficient cleaning and long, durable life. They offer excellent sound absorption to reduce reverberation or echo.

The SONEX Clean line is made from pinta acoustic’s willtec melamine foam core, which is ASTM E84 Class 1 fire-rated. Products are available in 17 standard colors.

pinta acoustic, inc. has a network of experienced distributors and representatives who can help you with all your acoustics needs. To locate the distributor or representative nearest you, visit www.pinta-acoustic.com.
Materials
- Made from pinta’s Class 1 fire-rated willtec® melamine foam core
- Fully encapsulated in FR taffeta vinyl
- 17 standard colors

Installation/Size
Ceiling Tiles (24” x 24” x 2” or 24” x 48” x 2”)
- Drop into any pinta acoustic or standard ceiling grid system
Panels (24” x 48” x 2”)
- Attach in seconds to wall and/or ceiling surface with pinta’s acouSTIC water-based adhesive or hook and loop or other mechanical systems
Baffles (24” x 48” x 2”)
- Equipped with grommets, easily installed on ceiling-mounted cables or chains

Sound Absorption—Ceiling Tiles
Test ASTM C423-07, Mounting Type E

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>2” Thickness</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>250</td>
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<tr>
<td>500</td>
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<tr>
<td>1000</td>
<td>0.90</td>
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<tr>
<td>2000</td>
<td>0.43</td>
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<tr>
<td>4000</td>
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<tr>
<td>NRC</td>
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</table>

Sound Absorption—Wall Panels
Test ASTM C423-07, Mounting Type A

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</tr>
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<tbody>
<tr>
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<tr>
<td>250</td>
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<tr>
<td>500</td>
<td>1.21</td>
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<tr>
<td>1000</td>
<td>0.82</td>
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<tr>
<td>4000</td>
<td>0.25</td>
</tr>
<tr>
<td>NRC</td>
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</table>

Sound Absorption—Baffles
Sabins per Baffle per ASTM C423-07, Hanging Baffle

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<thead>
<tr>
<th>Frequency (Hz)</th>
<th>2” Thickness</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>250</td>
<td>5.23</td>
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<td>2000</td>
<td>5.33</td>
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<tr>
<td>4000</td>
<td>2.99</td>
</tr>
<tr>
<td>Average</td>
<td>8.20</td>
</tr>
</tbody>
</table>

Physical Data—willtec Core
- Material ASTM G21 Open-cell melamine-based foam
- Density 0.5 to 0.7 lbs./cu. ft. (ASTM D3574-77)
- Long-Term Service Temperature 302°F
- Fire Resistance Class 1 per ASTM E 84 Meets UL 1715 (willtec natural)
- Flame Spread per ASTM E 84 Natural: 5
- Smoke Density per ASTM E 84 Natural: 50
- Microbial Growth Passes UL 181, section 11
- Fungus Resistance Rating 0 per

Physical Data—FR Taffeta Vinyl
- Material 4.00 mil PVC film
- Flammability Meets California fire marshal requirements section 13115 CA Health and Safety C

Other Products
- pinta acoustic, inc. manufactures a broad range of acoustical materials, including:
  - CONTOUR® Ceiling Tiles
  - HARMONI Ceiling Tiles
  - WHITELINE® Ceiling Tiles
  - SQUARELINE® Metal Ceiling Tiles
  - BIOLINE® Wood Ceiling Tiles
  - SONEX® Baffles and Panels
  - SONEX Rondo Baffles
  - FABRITEC Wall Panels
  - pinta Ceiling Grid Systems
  - PROSPEC® Barriers, Foams and Composites
  - PROSPEC Decibel Drop™ Viscoelastic Damping Compound
SONEX® One Panels
Product Information

- Softly sculpted surface pattern
- Excellent sound absorption across all frequencies
- Helps reduce noise, unwanted sounds and reverberation in many types of interior environments
- Panel size of 24” x 48” by 2” or 3” thickness
- Beveled edges for a finished look

SONEX One Panels are a versatile product, offering effective acoustic control in a variety of applications and environments including industrial facilities, multi-purpose rooms and architectural projects. SONEX One Panels are attractive and reliable, featuring Noise Reduction Coefficient (NRC) ranging from 0.85 to 1.10. The sculpted surface of each panel deflects and disperses sound waves, allowing the open-cell willtec® foam to convert sound energy into quiet, kinetic energy.

pinta’s exclusive willtec foam is Class 1 fire-rated according to ASTM E 84 for flame spread and smoke density. willtec natural meets the corner burn test UL 1715.

SONEX One Panels are available in natural or HPC-coated finishes. Our exclusive HPC formulation protects the foam from dust and dirt and makes it possible to wipe panels clean using only a damp cloth.

SONEX One Panels are easy to install on any wall and/or ceiling surface with pinta’s acouSTIC water-based adhesive. The panels can also be used in conjunction with SONEX One Baffles, which have the same pattern but are designed to hang from ceilings in large rooms or open interior spaces.
Elementary school’s multipurpose room has SONEX® One Panels installed to improve learning environment.

HPC-coated SONEX One Panels help reduce excessive reverberation at printing company.

Fast and easy installation

Applications
- Retail stores
- Printing pressrooms
- Production facilities
- Aquatic and recreation centers
- Educational facilities and daycare centers

Physical Data—willtec® foam

<table>
<thead>
<tr>
<th>Material</th>
<th>Open-cell melamine-based foam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>0.5 to 0.7 lbs./cubic ft. (ASTM D3574-77)</td>
</tr>
<tr>
<td>Long-Term Service Temperature</td>
<td>302° F</td>
</tr>
<tr>
<td>Fire Resistance</td>
<td>Class 1 per ASTM E 84 (all finishes)</td>
</tr>
<tr>
<td></td>
<td>Meets UL 1715 (willtec natural)</td>
</tr>
<tr>
<td>Flame Spread per ASTM E 84</td>
<td>Natural: 5</td>
</tr>
<tr>
<td></td>
<td>HPC-coated: 15</td>
</tr>
<tr>
<td>Smoke Density per ASTM E 84</td>
<td>Natural: 50</td>
</tr>
<tr>
<td></td>
<td>HPC-coated: 150</td>
</tr>
<tr>
<td>Microbial Growth</td>
<td>Passes UL 181, section 11</td>
</tr>
<tr>
<td>Fungus Resistance</td>
<td>Rating 0 per ASTM G21</td>
</tr>
<tr>
<td>Finishes</td>
<td>Natural (white and light grey) or HPC-coated</td>
</tr>
</tbody>
</table>

Sound Absorption

<table>
<thead>
<tr>
<th>Finish</th>
<th>Thickness</th>
<th>Coefficients per ASTM C423-90a</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>125Hz</td>
<td>250Hz</td>
</tr>
<tr>
<td>Natural (white and light grey)</td>
<td>2&quot;</td>
<td>0.11</td>
</tr>
<tr>
<td>HPC-coated</td>
<td>3&quot;</td>
<td>0.09</td>
</tr>
<tr>
<td>Natural (black, grey, white or almond)</td>
<td>2&quot;</td>
<td>0.13</td>
</tr>
<tr>
<td>HPC-coated</td>
<td>3&quot;</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Other Products
pinta acoustic, inc. manufactures a broad range of acoustical materials including:

- CONTOUR® Ceiling Tiles
- HARMONI® Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- SONEX Rondo Baffles
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- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pinta Ceiling Grid Systems
SONEX® One Baffles
Product Information

- Softly sculpted surface pattern on both sides
- Designed to hang from ceilings in large, open rooms
- Excellent sound absorption across all frequencies
- Baffle size of 24” x 48” by 3” thickness

SONEX One Baffles are an ideal solution to reverberation and overall noise problems. These versatile baffles can be used in a variety of settings including: auditoriums, gymnasiums, indoor swimming pools, recreation centers and production facilities. SONEX One Baffles are made from pinta’s exclusive willtec® foam, which is Class 1 fire-rated according to ASTM E 84 for flame spread and smoke density. willtec natural also meets the corner burn test UL 1715.

In addition to its high fire safety rating, willtec foam provides excellent sound absorption across all frequencies and helps prevent noise buildup that interferes with speech intelligibility.

SONEX One Baffles are available in natural or HPC-coated finishes. Our exclusive HPC formulation protects the foam from dust and dirt and makes it possible to wipe baffles clean using only a damp cloth.

SONEX One Baffles are equipped with integrated straps and grommets for easy installation on ceiling-mounted cables or chains. Baffles can be aligned in the same direction or arranged so that every other baffle is turned 90 degrees. For detailed installation instructions, please see our baffle installation guide.
Applications
- Multipurpose rooms and gymnasiums
- Large classrooms or music rooms
- Manufacturing facilities
- Aquatic centers and indoor pools
- Any large, open room with reverberation problems

Physical Data—willtec® foam

<table>
<thead>
<tr>
<th>Material</th>
<th>Open-cell melamine-based foam</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Class 1 per ASTM E 84 (all finishes)</td>
</tr>
<tr>
<td>Flame Spread per ASTM E 84</td>
<td>Natural: 5, HPC-coated: 15</td>
</tr>
<tr>
<td>Smoke Density per ASTM E 84</td>
<td>Natural: 50, HPC-coated: 150</td>
</tr>
<tr>
<td>Microbial Growth</td>
<td>Passes UL 181, section 11</td>
</tr>
<tr>
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</table>

Sound Absorption

<table>
<thead>
<tr>
<th>Finish</th>
<th>Thickness</th>
<th>125Hz</th>
<th>250Hz</th>
<th>500Hz</th>
<th>1kHz</th>
<th>2kHz</th>
<th>4kHz</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural (white and light grey)</td>
<td>3”</td>
<td>2.3</td>
<td>5.7</td>
<td>10.5</td>
<td>15.3</td>
<td>18.6</td>
<td>24.8</td>
<td>12.9</td>
</tr>
<tr>
<td>HPC-coated (black, grey, white or almond)</td>
<td>3”</td>
<td>0.76</td>
<td>3.96</td>
<td>10.92</td>
<td>18.2</td>
<td>18.45</td>
<td>18.05</td>
<td>12.9</td>
</tr>
</tbody>
</table>

Other Products
pinta acoustic, inc. manufactures a broad range of acoustical materials including:
- CONTOUR® Ceiling Tiles
- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
- SONEX Clean Baffles, Panels and Ceiling Tiles
- FABRITEC Wall Panels
- PHONSTOP™ Ceiling and Wall Tiles
- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pinta Ceiling Grid Systems
SONEX® Pyramid Panels

Product Information

- Bold, geometric pattern
- Seamless installation
- Excellent acoustic control
- Panel size of 24" x 24" by 2”, 3” or 4” thickness

SONEX Pyramid Panels offer outstanding acoustic control across all frequencies with Noise Reduction Coefficient (NRC) ranging from 0.75 to 1.05. The unique geometric design of these panels dramatically increases the panels’ surface area, providing much more acoustic control than flat surfaces. SONEX Pyramid Panels are made from pinta’s willtec® foam, which is Class 1 fire-rated according to ASTM E 84 for flame spread and smoke density. willtec natural also meets the corner burn test UL 1715.

SONEX Pyramid Panels, available in natural willtec, can be easily mounted to any wall or ceiling surface with pinta’s acouSTIC water-based adhesive. Once installed, the 24” x 24” panels align to make an attractive, seamless pattern.
Applications
- Displays, showrooms and museums
- Machine rooms or manufacturing areas
- Modern offices and building interiors
- Recreational facilities
- Recording studios and listening rooms
- Restaurants and cafeterias

Physical Data—willtec® foam

<table>
<thead>
<tr>
<th>Material</th>
<th>Open-cell melamine-based foam</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
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<th>Thickness</th>
<th>125Hz</th>
<th>250Hz</th>
<th>500Hz</th>
<th>1kHz</th>
<th>2kHz</th>
<th>4kHz</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural (white and grey)</td>
<td>2’</td>
<td>0.07</td>
<td>0.25</td>
<td>0.60</td>
<td>0.94</td>
<td>0.97</td>
<td>1.08</td>
<td>0.70</td>
</tr>
<tr>
<td>Natural</td>
<td>3’</td>
<td>0.09</td>
<td>0.37</td>
<td>0.81</td>
<td>1.01</td>
<td>1.03</td>
<td>1.07</td>
<td>0.80</td>
</tr>
<tr>
<td>Natural</td>
<td>4’</td>
<td>0.18</td>
<td>0.44</td>
<td>0.96</td>
<td>1.14</td>
<td>1.18</td>
<td>1.19</td>
<td>0.95</td>
</tr>
</tbody>
</table>

Other Products

pinta acoustic, inc. manufactures a broad range of acoustical materials including:

- CONTOUR® Ceiling Tiles
- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- SONEX® Baffles and Panels
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- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- pinta Ceiling Grid Systems
SONEX® Valueline Panels
Product Information

SONEX Valueline Panels provide effective acoustic control at an affordable price. The subtle surface pattern on these panels renders them inconspicuous in most settings, making them suitable for a variety of interior settings, including manufacturing facilities, churches and classrooms. SONEX Valueline Panels are made from willtec® foam, which is Class 1 fire-rated for flame spread and smoke density. willtec natural also meets the corner burn test UL 1715.

SONEX Valueline Panels offer excellent acoustical control across all frequencies with a Noise Reduction Coefficient (NRC) ranging from 0.75 to 1.05. They are especially effective at absorbing excessive sound at the middle frequencies (500 and 1,000 Hz) where unwanted noise and reverberation can interfere with communication.

Panels are available in natural willtec and can be easily mounted to any wall or ceiling surface with pinta’s acouSTIC water-based adhesive. Separate panels by 1" from adjacent panels for a more uniform appearance.

SONEX Valueline Panels can also be used in conjunction with SONEX Valueline Baffles, which have the same unique surface pattern. Baffles are designed to hang from ceilings in large rooms or open interior spaces.

- Excellent acoustic control across all frequencies
- Subtle surface pattern
- Easily mounts to any ceiling and/or wall surface with pinta’s acouSTIC adhesive
- Panel size of 24" x 48" by 1 1/8", 1 3/8" or 2 1/2" thickness
**Applications**

- Manufacturing facilities and industrial assembly areas
- Classrooms and music rooms
- Machine enclosure lining
- Recreational facilities
- Multipurpose rooms
- Restaurants and cafeterias

**Physical Data—willtec® foam**

<table>
<thead>
<tr>
<th>Material</th>
<th>Open-cell melamine-based foam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Fire Resistance</td>
<td>Class 1 per ASTM E 84 (all finishes) Meets UL 1715 (willtec natural)</td>
</tr>
<tr>
<td>Flame Spread per ASTM E 84</td>
<td>Natural: 5 HPC-coated: 15</td>
</tr>
<tr>
<td>Smoke Density per ASTM E 84</td>
<td>Natural: 50 HPC-coated: 150</td>
</tr>
<tr>
<td>Fungus Resistance</td>
<td>Rating 0 per ASTM G21</td>
</tr>
<tr>
<td>Microbial Growth</td>
<td>Passes UL 181, section 11</td>
</tr>
<tr>
<td>Finishes</td>
<td>Natural (white and light grey) or HPC-coated*</td>
</tr>
</tbody>
</table>

*Minimum order of 20 boxes.

### Sound Absorption

<table>
<thead>
<tr>
<th>Finish</th>
<th>Thickness</th>
<th>Coefficients per ASTM C423-90a</th>
<th>Mounting Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>125Hz</td>
<td>250Hz</td>
<td>500Hz</td>
</tr>
<tr>
<td>Natural (white and light grey)</td>
<td>0.08</td>
<td>0.29</td>
<td>0.73</td>
</tr>
<tr>
<td>Natural</td>
<td>1/4&quot;</td>
<td>0.17</td>
<td>0.55</td>
</tr>
<tr>
<td>Natural</td>
<td>1/2&quot;</td>
<td>0.19</td>
<td>0.62</td>
</tr>
<tr>
<td>Natural</td>
<td>1/2&quot;</td>
<td>0.19</td>
<td>0.62</td>
</tr>
</tbody>
</table>

**Other Products**

Pinta Acoustic, Inc. manufactures a broad range of acoustical materials, including:

- CONTOUR® Ceiling Tiles
- HARMONI Ceiling Tiles
- WHITELINE® Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
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- PROSPEC® Barriers, Foams and Composites
- PROSPEC Decibel Drop™ Viscoelastic Damping Compound
- Pinta Ceiling Grid Systems
SONEX® Valueline Baffles

Product Information

- Wall-to-wall hanging system saves labor time
- Easy installation
- Baffles reduce noise and reverberation (echo)
- Applications include production areas, gymnasiums, natatoriums and more

SONEX Valueline Baffles help improve communication and reduce echo/reverberation in large open areas such as production plants, warehouses, gymnasiums and swimming pools.

SONEX Valueline Baffles absorb sound energy from multiple sources, reducing noise and reverberation throughout the environment. Made from pinta’s willtec® foam, SONEX Valueline Baffles are Class 1 fire-rated for flame spread and smoke density. Resistant to fungus and microbial growth, they withstand the humid conditions of indoor swimming pools.

SONEX Valueline Baffles are field-fitted with stainless steel corkscrew hangers, making them easy to install over individual workstations or above an entire floor. Wall-to-wall cable installation is completed by sliding baffles into place from one side of the room, allowing activities to continue uninterrupted. Ceiling cable installation allows baffles to be arranged in box-like or criscross patterns.
Components
- SONEX® Valueline Baffles (packaged 6 per box, 24” x 48” x 2”)
- Stainless steel corkscrew hangers (2 per baffle; included in box)
- PVC spacer bars, each 12” wide (sold separately in increments of 100)
- Installation guide

Wall-to-Wall Cable Mount Installation
Recommended for large open areas where scaffolding would be disruptive, such as manufacturing floors or pools. Baffles are arranged parallel with each other.

Ceiling Mount Installation
Baffles hang from ceiling-mounted cables. Baffles can be aligned in the same direction or arranged so that every other baffle is turned 90 degrees. Tests show that baffles arranged in this crisscross pattern perform slightly better than baffles hung in the same direction.

Physical data—willtec® foam
Material: Open-cell melamine-based foam
Density: 0.5 to 0.7 lbs./cu. ft. (ASTM D3574-77)
Long-Term Service Temperature: 302°F
Fire Resistance: Class 1 per ASTM E 84 (all finishes) Meets UL 1715 (willtec natural)
Flame Spread per ASTM E 84
- Natural: 5
- HPC-coated: 15
Smoke Density per ASTM E 84
- Natural: 90
- HPC-coated: 150
Fungus Resistance: Rating 0 per ASTM G21
Microbial Growth: Passes UL 181, section 11
Finishes: Natural (white and light grey) or HPC-coated*

Sound Absorption (In sabins) Test ASTM C423-90a

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>2” Thick, Natural</th>
<th>2” Thick, Painted</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>1.0</td>
<td>2.3</td>
</tr>
<tr>
<td>250</td>
<td>5.4</td>
<td>6.5</td>
</tr>
<tr>
<td>500</td>
<td>10.8</td>
<td>12.7</td>
</tr>
<tr>
<td>1K</td>
<td>16.3</td>
<td>19.7</td>
</tr>
<tr>
<td>2K</td>
<td>18.7</td>
<td>21.0</td>
</tr>
<tr>
<td>4K</td>
<td>24.0</td>
<td>21.0</td>
</tr>
<tr>
<td>Average sabins per baffle</td>
<td>12.7</td>
<td>15.0</td>
</tr>
</tbody>
</table>

*Minimum order of 20 boxes.

Other Products
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2601 49th Avenue North, Suite 400  Minneapolis, MN 55430  Toll-Free 1-800-662-0032  sales@pinta-acoustic.com  www.pinta-acoustic.com

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SECTION 09 48 33
SONEX® Acoustical Wall Treatment

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes:
   1. Patterned, sound-absorptive wall panels.
   2. Patterned, sound-absorptive baffles.
B. Related Sections:
   EDIT NOTE: ADD OR DELETE SECTIONS PER PROJECT REQUIREMENTS.
   1. Section 03 38 00 – Post-Tensioned Concrete.
   2. Section 03 41 00 – Plant-Precast Structural Concrete.
   3. Section 03 41 13 – Precast Concrete Hollow Core Planks.
   4. Section 05 21 00 – Steel Joist Framing.
   5. Section 05 31 00 – Steel Decking.
   6. Section 06 15 00 – Wood Decking.
   7. Section 06 17 53 – Shop-Fabricated Wood Trusses
   10. Section 09 21 16 – Gypsum Board Assemblies.

1.2 SYSTEM DESCRIPTION
A. Acoustical Performance Requirements:
   1. SONEX® Wall Panels. NRC (Noise Reduction Coefficient): Comply with ASTM C423-90a up to 1.0 depending on thickness. See specific products for ratings.

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 the following specified units for color selection or verification.
   EDIT NOTE: RETAIN PANEL OR BAFFLE SELECTION BELOW. RETAIN BOTH IF EACH IS USED ON PROJECT.
   1. Panels.
   2. Baffles.
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 the following units for entire Project from a single manufacturer.

EDIT NOTE: RETAIN PANEL OR BAFFLE SELECTION BELOW. RETAIN BOTH IF EACH IS USED ON PROJECT.

1. Panels.
2. Baffles.

B. Manufacturer's Qualifications: Firm with not less than 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.
3. Systems may be installed in cool storage rooms and rooms with high humidity

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 49th Avenue North, Ste. 400
      Minneapolis, Minnesota  55412
      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:  FOR EACH PROJECT, SELECT THE DESIRED PANEL OR BAFFLE ALONG WITH THE REQUIRED THICKNESS, FINISH, AND IF APPLICABLE, THE EDGE.

A. Acoustical Wall Panels:  Lightweight, open-cell willtec® foam panel meeting the following requirements:
   1. SONEX One Panel:
      a. Density:  0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
      b. Tensile Strength:  8 psi (0.06 MPa).
      c. Flammability:  Class 1 per ASTM E84.
      d. Flame Spread:
         1) Natural:  5.
         2) HPC:  15.
      e. Smoke Density:
         1) Natural:  50.
         2) HPC:  200.
      f. Panel Size:  24 inch by 48 inch (610 mm by 1219 mm).
      g. Panel Thickness:  2 inches (51 mm).

EDIT NOTE:  SELECT PANEL THICKNESS ABOVE OR BELOW.  DELETE THICKNESS NOT REQUIRED FOR PROJECT.
   h. Panel Thickness:  3 inches (76 mm).

EDIT NOTE:  SELECT PANEL COLOR BELOW.  DELETE PANEL COLORS NOT REQUIRED FOR PROJECT.  HPC IMPROVES STAIN RESISTANCE AND CLEANABILITY.
   i. Finish:  Natural White.
   j. Finish:  Natural Grey.
   m. Finish:  Applied Light Grey HPC coating.
   o. Finish:  Applied Light Blue HPC coating.
   r. Finish:  Applied custom color HPC coating.
   s. Sound Absorption Coefficients:  Type B and A mountings, ASTM C423-90a.
2. **SONEX Classic Panel:**
   a. **Density:** 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
   b. **Tensile Strength:** 8 psi (0.06 MPa).
   c. **Flammability:** Class 1 per ASTM E84.
   d. **Flame Spread:**
      1) **Natural:** 5.
      2) **colortec:** 10.
   e. **Smoke Density:**
      1) **Natural:** 50.
      2) **colortec:** 10.
   f. **Panel Size:** 24 inch by 48 inch (610 mm by 1219 mm).
   g. **Panel Thickness:** 2 inches (51 mm).

**EDIT NOTE:** SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT. **COLORTEC IS A PROCESS ONLY AVAILABLE FROM PINTA. THE PANELS ARE IMPREGNATED WITH A DYE TO PRODUCE A COLOR CONSISTENCY THROUGHOUT THE ENTIRE THICKNESS OF THE PANEL.**

2. **SONEX Classic Panel:**
   a. **Density:** 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
   b. **Tensile Strength:** 8 psi (0.06 MPa).
   c. **Flammability:** Class 1 per ASTM E84.
   d. **Flame Spread:**
      1) **Natural:** 5.
      2) **colortec:** 10.
   e. **Smoke Density:**
      1) **Natural:** 50.
      2) **colortec:** 10.
   f. **Panel Size:** 24 inch by 48 inch (610 mm by 1219 mm).
   g. **Panel Thickness:** 2 inches (51 mm).

3. **Product: SONEX Valueline Panel:**
   a. **Density:** 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
   b. **Tensile Strength:** 8 psi (0.06 MPa).
   c. **Flammability:** Class 1 per ASTM E84.
   d. **Flame Spread:**
      1) **Natural:** 5.
      2) **HPC:** 15.
   e. **Smoke Density:**
      1) **Natural:** 50.
      2) **HPC:** 200.
   f. **Panel Size:** 24 inch by 48 inch (610 mm by 1219 mm).
   g. **Panel Thickness:** 1-1/2 inches (38 mm).

**EDIT NOTE:** SELECT PANEL THICKNESS ABOVE OR BELOW. DELETE THICKNESSES NOT REQUIRED FOR PROJECT.

3. **Product: SONEX Valueline Panel:**
   a. **Density:** 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
   b. **Tensile Strength:** 8 psi (0.06 MPa).
   c. **Flammability:** Class 1 per ASTM E84.
   d. **Flame Spread:**
      1) **Natural:** 5.
      2) **HPC:** 15.
   e. **Smoke Density:**
      1) **Natural:** 50.
      2) **HPC:** 200.
   f. **Panel Size:** 24 inch by 48 inch (610 mm by 1219 mm).
   g. **Panel Thickness:** 1-1/2 inches (38 mm).

**EDIT NOTE:** SELECT PANEL THICKNESS ABOVE OR BELOW. DELETE THICKNESSES NOT REQUIRED FOR PROJECT.

h. **Panel Thickness:** 1-7/8 inches (48 mm).

i. **Panel Thickness:** 2-1/2 inches (64 mm).

**EDIT NOTE:** SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT. **HPC IMPROVES STAIN RESISTANCE AND CLEANABILITY. HPC COATING OPTION IS ONLY AVAILABLE ON ORDERS OF 20 BOXES OR MORE.**

j. **Finish:** Natural White.
k. Finish: Natural Grey.
l. Finish: Applied Black HPC coating.
m. Finish: Applied White HPC coating.
o. Finish: Applied Medium Grey HPC coating.
q. Finish: Applied Ivory HPC coating.
r. Finish: Applied Almond HPC coating.
s. Finish: Applied custom color HPC coating.
t. Sound Absorption Coefficients: Type B mountings, ASTM C423-90a.

<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2 inch (38 mm) Natural:</td>
<td>0.08</td>
<td>0.29</td>
<td>0.73</td>
<td>0.94</td>
<td>0.97</td>
<td>0.89</td>
<td>0.75</td>
</tr>
<tr>
<td>1-7/8 inch (48 mm) Natural:</td>
<td>0.17</td>
<td>0.55</td>
<td>1.07</td>
<td>1.15</td>
<td>1.08</td>
<td>1.10</td>
<td>0.95</td>
</tr>
<tr>
<td>2-1/2 inch (64 mm) Natural:</td>
<td>0.19</td>
<td>0.62</td>
<td>1.15</td>
<td>1.21</td>
<td>1.14</td>
<td>1.20</td>
<td>1.05</td>
</tr>
</tbody>
</table>

4. Product: SONEX Pyramid Panel:
   a. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
   b. Tensile Strength: 8 psi (0.06 MPa).
   c. Flammability: Class 1 per ASTM E84.
   d. Flame Spread:
      1) Natural: 5.
   e. Smoke Density:
      1) Natural: 50.
   f. Panel Size: 24 inch by 24 inch (610 mm by 610 mm).
   g. Panel Thickness: 2 inches (51 mm).

EDIT NOTE: SELECT PANEL THICKNESS ABOVE OR BELOW. DELETE THICKNESSES NOT REQUIRED FOR PROJECT.

h. Panel Thickness: 3 inches (76 mm).
i. Panel Thickness: 4 inches (102 mm).

EDIT NOTE: SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT.

j. Finish: Natural White.
k. Finish: Natural Grey.
l. Sound Absorption Coefficients: Type B mountings, ASTM C423-90a.

<table>
<thead>
<tr>
<th>Frequencies (Hz)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1,000</th>
<th>2,000</th>
<th>4,000</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 inch (51 mm) pyramid:</td>
<td>0.07</td>
<td>0.25</td>
<td>0.60</td>
<td>0.94</td>
<td>0.97</td>
<td>1.08</td>
<td>0.70</td>
</tr>
<tr>
<td>3 inch (76 mm) pyramid:</td>
<td>0.09</td>
<td>0.37</td>
<td>0.81</td>
<td>1.01</td>
<td>1.03</td>
<td>1.07</td>
<td>0.80</td>
</tr>
<tr>
<td>4 inch (102 mm) pyramid:</td>
<td>0.18</td>
<td>0.44</td>
<td>0.96</td>
<td>1.14</td>
<td>1.18</td>
<td>1.19</td>
<td>0.95</td>
</tr>
</tbody>
</table>

EDIT NOTE: THE FOLLOWING BAFFLES WERE TESTED FREE HANGING AND PARALLEL TO EACH OTHER WITH 12” SEPARATING EACH BAFFLE. BAFFLES WERE HUNG WITH THE 24” LENGTH PARALLEL TO THE FLOOR.

B. Acoustical Ceiling Baffles: lightweight, open-cell willtec® baffles. Baffles come complete with nylon webbing straps or metal eye hooks for hanging. Comply with the following requirements:

1. Product: SONEX One Baffles with nylon webbing straps:
   a. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
   b. Tensile Strength: 8 psi (0.06 MPa).
   c. Flammability: Class 1 per ASTM E84.
   d. Flame Spread:
      1) Natural: 5.
      2) HPC: 15.
e. Smoke Density:
   1) Natural: 50.
   2) HPC: 200.

f. Baffle Size: 24 inch by 48 inch (610 mm by 1219 mm).

g. Baffle Thickness: 3 inches (76 mm).

h. Edge Design: beveled

EDIT NOTE: SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT. HPC IMPROVES STAIN RESISTANCE AND CLEANABILITY.

i. Finish: Natural White.

j. Finish: Natural Grey.


m. Finish: Applied Light Grey HPC coating.

o. Finish: Applied Light Blue HPC coating.


r. Finish: Applied custom color HPC coating.
s. Sabins per baffle: ASTM C423-90a.

Frequencies (Hz) | 125 | 250 | 500 | 1,000 | 2,000 | 4,000 | Average
--- | --- | --- | --- | --- | --- | --- | ---
Natural willtec: | 2.3 | 5.7 | 10.5 | 15.3 | 18.6 | 24.8 | 12.9
HPC coated: | 0.76 | 3.96 | 10.92 | 18.2 | 18.45 | 18.05 | 12.9

2. Product: SONEX Valueline Baffle with field-installed corkscrew hangers:
   
a. Density: 0.5 to 0.7 pounds per cubic foot (0.23 to 0.32 kg per m³).
b. Tensile Strength: 8 psi (0.06 MPa).
c. Flammability: Class 1 per ASTM E84.
d. Flame Spread:
   1) Natural: 5.
e. Smoke Density:
   1) Natural: 50.
f. Baffle Size: 24 inch by 48 inch (610 mm by 1219 mm).
g. Baffle Thickness: 2 inches (51 mm).

EDIT NOTE: SELECT PANEL COLOR BELOW. DELETE PANEL COLORS NOT REQUIRED FOR PROJECT. HPC COATING OPTION IS ONLY AVAILABLE ON ORDERS OF 20 BOXES OR MORE.

h. Finish: Natural White.

i. Finish: Natural Grey.


m. Finish: Applied Medium Grey HPC coating.
o. Finish: Applied Light Blue HPC coating.

r. Finish: Applied custom color HPC coating.
s. Sabins per baffle: ASTM C423-90a.

Frequencies (Hz) | 125 | 250 | 500 | 1,000 | 2,000 | 4,000 | Average
--- | --- | --- | --- | --- | --- | --- | ---
Natural: | 1.0 | 5.4 | 10.8 | 16.3 | 18.7 | 24.0 | 12.7
2.3 ACCESSORIES

A. Adhesive: Non-toxic, water-based adhesive, for use with foam products.
   1. pinta acouSTIC foam adhesive or approved substitute.

EDIT NOTE: SELECT ADHESIVE ABOVE FOR USE WITH PANELS. SELECT CHAIN BELOW FOR USE WITH BAFFLES.

B. Lightweight chain or 1/16 inch (1.6 mm) steel cable.
   1. Use steel cable for wall-to-wall installations with corkscrew hangers.

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.

EDIT NOTE: USE THE FOLLOWING PREPARATION ARTICLE FOR ADHESIVE APPLIED INSTALLATIONS ONLY.

3.2 PREPARATION

A. Prior to installing acoustical panels, make certain that surfaces to which adhesive will be applied are clean and free of dust, dirt, and other residues that would inhibit a proper bond.

3.3 INSTALLATION

A. Comply with manufacturer’s instructions and recommendations for installation of the following units.

EDIT NOTE: RETAIN PANEL OR BAFFLE SELECTION BELOW. RETAIN BOTH IF EACH IS USED ON PROJECT.
   1. Panels.
   2. Baffles.

EDIT NOTE: USE THE FOLLOWING PARAGRAPH AND SUBPARAGRAPHS FOR ADHESIVE APPLIED INSTALLATIONS ONLY.

B. Acoustical Panels:
   1. Cut adhesive tube end to produce a 1/4 inch (6.4 mm) bead.
   2. Apply adhesive to panels per manufacturer's recommended pattern and press panel firmly into place per manufacturer's installation requirements.
   3. Install panels true to lines and plane indicated.

EDIT NOTE: USE THE FOLLOWING PARAGRAPH AND SUBPARAGRAPHS FOR CHAIN APPLIED INSTALLATIONS ONLY.

C. Acoustical Baffles: Do not fasten anchors of any type to steel deck without written approval from structural engineer of record.
   1. Install mounting cable or chain by attaching to bottom chord of trusses or joists.
   2. Attach bottom end of cable or chain directly to baffle’s integral web strapping or grommets directly or with “S” type hooks.
   3. Install baffle in configuration and elevations indicated, true to lines and plane indicated.
      a. Do not install baffles more than 10 feet (3 m) below ceiling or roof structure from which it is hanging. This may cause excessive swaying of baffles by air movement.
EDIT NOTE: IF HANGING BAFFLES ON A WALL-TO-WALL CABLE SYSTEM, USE ONLY CORKSCREW HANGERS.

D. Cable installation with corkscrew hangers: Follow manufacturer's installation instructions.

3.4 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.
SONEX® is a registered trademark of pinta acoustic, inc.
PROSPEC Decibel Drop, a high-performance viscoelastic damping compound, decreases the sound traveling to adjacent rooms. It is easy to install between layers of drywall, plywood or subflooring in new and retrofit applications. PROSPEC Decibel Drop is ideal for use in commercial, broadcast/audio, home theater and multifamily interior spaces.

**Advantages**

- Decreases sound traveling to adjacent rooms
- Offers exceptional damping properties
- Superior performance in low frequencies
- Easy to install between drywall layers
- Class 1 fire-rated
Material

PROSPEC Decibel Drop is a high-performance viscoelastic damping compound. It provides an economical solution for reducing sound transmission into adjacent areas. Each case contains 12 29-oz. cartridges.

Installation

- Use on walls, floors and ceilings
- Use in new construction or retrofit applications
- Apply 2 to 3 cartridges randomly over the surface of each 4’ x 8’ (32 sq. ft.) sheet of drywall; no troweling required
- Press drywall to first layer of drywall already installed and screw it to the studs
- Install on one or both sides of the wall
- See installation guide and technical data for more information

Sound Transmission

24” OC studs; R13 fiberglass insulation; drywall 5/8”; coverage: 2 cartridges/32 sq. ft.

<table>
<thead>
<tr>
<th>STC</th>
<th>Studs</th>
<th>Sources</th>
<th>Side Receiving Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>Wood</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
<td>1 layer of drywall</td>
</tr>
<tr>
<td>54</td>
<td>Wood</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
</tr>
<tr>
<td>57</td>
<td>Steel</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
<td>1 layer of drywall</td>
</tr>
<tr>
<td>62</td>
<td>Steel</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
</tr>
<tr>
<td>57</td>
<td>Staggered wood</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
<td>1 layer of drywall</td>
</tr>
<tr>
<td>62</td>
<td>Staggered wood</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
<td>2 layers of drywall with PROSPEC Decibel Drop</td>
</tr>
</tbody>
</table>

Physical Data

- Fire Resistance: Class 1 per ASTM E 84
- Flame Spread per ASTM E 84: 15
- Smoke Density per ASTM E 84: 35

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PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Vibration absorption material.

B. Related Sections:

EDIT NOTE: ADD OR DELETE SECTIONS PER PROJECT REQUIREMENTS.
   1. Section 09 21 16 – Gypsum Board Assemblies.

1.2 SYSTEM DESCRIPTION

A. Performance Requirements:
   1. Active Content: 68 percent, plus/minus 5 percent.
   2. Working Time: 30 minutes at room temperature.
   3. Viscosity: Light Paste 65,000 cpd.
   5. VOC: >2 g/l.
   6. Flash Point: >200 degrees F (>93.33 degrees C).
   7. Application Temperature: 40 to 90 degrees F (>4.44 to 32.33 degrees C).

B. Fire-related Properties:
   1. Product is able to be inserted into fire-rated assembly per International Building Code.

1.3 SUBMITTALS

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

B. Product Data: Manufacturer’s technical data and the following:
   1. Manufacturer’s installation instructions.
   2. Certified test reports indicating compliance with Performance Requirements specified herein.

1.4 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.
   3. Do not stack pallets.

1.5 PROJECT CONDITIONS

A. Environmental Requirements within building:
   1. Systems may be installed at any stage of construction.
1.6 WARRANTY
A. Provide manufacturer's written warranty per Section 01 77 00 – Closeout Procedures.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
A. Subject to compliance with requirements, provide products from the following manufacturer:
   1. Pinta Acoustic, Inc.
      2601 49th 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 MATERIALS
A. High performance viscoelastic-damping compound designed to decrease sound travel through walls,
floors, and ceilings.
   1. Fire Rating: Viscoelastic-damping compound complies with the following per ASTM E84:
      a. Class 1 fire rated.
      b. Flame Spread: 15.
      c. Smoke Density: 35.

PART 3 - EXECUTION

3.1 EXAMINATION
A. Verification of Site Conditions
   1. Do not begin installation until substrates have been properly prepared.
   2. Do not begin if room temperature is below freezing.

3.2 PREPARATION
A. Clean surfaces thoroughly before installation.
B. Follow manufacturer's guidelines for preparation and installation.

3.3 GENERAL MANUFACTURER'S INSTRUCTIONS
A. Refer to and comply with manufacturer's installation instructions.
B. Viscoelastic-damping compound provide for 30 minutes of work time, however, assemble panels as
   soon as possible.
C. Viscoelastic-damping compound reaches optimal performance in 30 days after assembly.
D. Clean up with soap and water while viscoelastic-damping compound is wet.
E. Viscoelastic-damping compound contains no hazardous materials. Dispose of empty containers as
   you would any building material.
3.4 INSTALLATION OF GYPSUM BOARD

A. Verify wall framing is in place and ready to receive gypsum board.
B. Install first standard layer of gypsum board as normal.
C. Remove dust and debris from gypsum board surfaces to be glued.
D. Apply prescribed quantity of viscoelastic-damping compound in a random pattern to back of second layer of gypsum board.
E. Assemble coated gypsum board layer to first layer and screw into place as normal.
   1. Use standard gypsum board screws.
   2. Screw second layer into wall studs.
   3. Screw spacing per local building code.
F. Seal assembly with caulk or sealant.
   1. Seal intersection of wall and floor.
   2. Seal gaps between walls and ceiling.
   3. Seal electrical boxes.
G. Gypsum board may be finished immediately after wall assembly

3.5 PROTECTION

A. Protect installed products until completion of project.
B. Repair or replace any mechanical damage or deficiencies before Substantial Completion.

END OF SECTION
Committing to the sustainability and improvement of the world is an expectation from industry leaders in the architectural market. pinta acoustic is proud to take part by manufacturing acoustical wall and ceiling products that provide architects and building owners with LEED credits for their new construction and school projects.

pinta acoustic strives to minimize environmental impact as much as possible by offering sustainable, innovative and high-performance solutions for today’s buildings and facilities. For this reason, we have chosen the Minneapolis Business Center, an urban green development, as the location of our Minneapolis manufacturing plant, offices and showroom. This building is a Brownfield redevelopment in an urban area. It offers excellent infrastructure, such as public transportation, and green building features.
LEED® Credit Statement

LEED-NC and LEED for Schools Credit for pinta acoustic products

Products outlined per the LEED Green Building Rating System for New Construction and Major Renovation (LEED-NC) Version 2.2. All statements pertain also to LEED for Schools.

**LEED-NC Energy and Atmosphere**

**Credit 1 Optimized Energy Performance**
The reflective surfaces of white fleece, natural white melamine foam or white HPC® coating may help reduce the number of light fixtures and related energy costs.

Products and Supporting Data:

- **WHITELINE® Ceiling Tiles**
  - (white fleece laminated on both sides)
  - ASTM E1477, Light reflectance = 0.89
- **CONTOUR® Ceiling and Wall Tiles**
  - (white HPC-coated)
  - ASTM E1477, Light reflectance = 0.87
- **HARMONI Ceiling Tiles**
  - (white HPC-coated)
  - ASTM E1477, Light reflectance = 0.87
- **SONEX® Rondo Baffles**
  - (natural white melamine foam)
  - ASTM E1477, Light reflectance = 0.87
- **SONEX One and Valueline Panels and Baffles**
  - (natural white melamine foam or white HPC-coated)
  - ASTM E1477, Light reflectance = 0.87
- **SONEX Classic, Junior, Mini and Pyramid Panels**
  - (natural white melamine foam or white HPC-coated)
  - ASTM E1477, Light reflectance = 0.87
- **WHISPERWAVE® Panels, Baffles, Ceiling Clouds and Awning**
  - (natural white melamine foam or white HPC-coated)
  - ASTM E1477, Light reflectance = 0.87
- **willtec® Linear Absorbers**
  - (natural white melamine foam or white HPC-coated)
  - ASTM E1477, Light reflectance = 0.87

**LEED-NC Materials and Resources**

**Credits 2.1 and 2.2 Construction Waste Management**
Products manufactured by pinta acoustic can be recycled by pinta acoustic.

Products:

- **WHITELINE Ceiling Tiles**
- **CONTOUR Ceiling and Wall Tiles**
- **HARMONI Ceiling Tiles**
- **BIOLINE® Wood Ceiling Tiles**
- **PHONSTOP® Ceiling and Wall Tiles**
- **SONEX Classic, Junior, Mini and Pyramid Panels**
- **SONEX Classic, Junior, Mini and Pyramid Panels**
- **WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awning**
- **SONEX Rondo Baffles**
- **SONEX One and Valueline Panels and Baffles**
- **willtec Linear Absorbers**

pinta acoustic’s products can be factory-cut to size, reducing field-cutting and scrap.

Products:

- **WHITELINE Ceiling Tiles**
- **CONTOUR Ceiling and Wall Tiles**
- **HARMONI Ceiling Tiles**
- **SQUARELINE® Metal Ceiling Tiles**
- **BIOLINE Wood Ceiling Tiles**
- **FABRITEC Wall Panels**
- **SONEX Rondo Baffles**
- **SONEX One and Valueline Panels and Baffles**
- **SONEX Classic, Junior, Mini and Pyramid Panels**
- **PHONSTOP Ceiling and Wall Tiles**
- **WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awnings**
- **sonex Classic, Junior, Mini and Pyramid Panels**
- **PHONSTOP Ceiling and Wall Tiles**
- **WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awnings**
- **SONEX One and Valueline Panels and Baffles**
- **FABRITEC Wall Panels**
- **PHONSTOP Ceiling and Wall Tiles**
- **SONEX Classic, Junior, Mini and Pyramid Panels**
- **SONEX Classic, Junior, Mini and Pyramid Panels**
- **WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awning**
- **SONEX Rondo Baffles**
- **SONEX One and Valueline Panels and Baffles**
- **FABRITEC Wall Panels**
- **PHONSTOP Ceiling and Wall Tiles**
- **SONEX Classic, Junior, Mini and Pyramid Panels**
- **SONEX Classic, Junior, Mini and Pyramid Panels**
- **WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awning**
- **SONEX Rondo Baffles**
- **SONEX One and Valueline Panels and Baffles**

**Credits 4.1 and 4.2 Recycled Content**
pinta acoustic’s products are made from recycled content.

Products:

- **SQUARELINE Metal Ceiling Tiles Expanded metal—35% – 55% postindustrial recycled content, by weight**
- **BIOLINE Organic-Texture Wood Ceiling Tiles 80% postindustrial recycled content, by weight**
- **BIOLINE Solid-Finish Wood Ceiling Tiles Core—70% postindustrial recycled content, by weight**
- **FABRITEC Wall Panels Fabric, polyester—100% recycled content**
- **PHONSTOP Ceiling and Wall Tiles 100% postconsumer recycled glass**

**Credit 7 Certified Wood**
FSC wood veneers are available.

Products:

- **BIOLINE Solid-Finish Wood Ceiling Tiles**
LEED-NC Indoor Environmental Quality
Credits 3.1 and 3.2
Construction IAQ Management Plan
pinta acoustic’s products contain extremely low levels of VOCs (volatile organic compounds), do not contribute to air pollution and do not release dust or fibers. These products are fabricated off-site to reduce on-site cutting and finishing.

Products:
- WHITELINE® Ceiling Tiles
- CONTOUR® Ceiling and Wall Tiles
- HARMONI Ceiling Tiles
- SQUARERLINE® Metal Ceiling Tiles
- BIOLINE® Wood Ceiling Tiles
- FABRITEC Wall Panels
- SONEX® Rondo Baffles
- PHONSTOP® Ceiling and Wall Tiles
- SONEX One and Valueline Panels and Baffles
- SONEX Classic, Junior, Mini and Pyramid Panels
- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- willtec® Linear Absorbers

Credit 4.1
Low-emitting Materials, Adhesives and Sealants
pinta acoustic’s adhesives and sealants contain extremely low levels of VOCs (volatile organic compounds) and do not contribute to air pollution.

Products:
- acouSTIC Adhesive
  Contains no VOCs
- Prospec Decibel Drop™ Viscoelastic Damping Compound
  Contains extremely low VOCs ≤ 2 g/l

Credit 4.4
Low-emitting Materials, Composite Wood
No urea-formaldehyde is added during the manufacturing process of our composite wood products. All finishes are waterborne and contain extremely low levels of VOCs.

Products:
- BIOLINE Wood Ceiling Tiles

Credits 8.1 and 8.2
Daylight and Views
pinta acoustic’s products have high light reflectance ratings, allowing daylight to penetrate farther into finished spaces.

Products and Supporting Data:
- WHITELINE Ceiling Tiles
  (white fleece laminated on both sides)
  ASTM E1477, Light reflectance = 0.89
- CONTOUR Ceiling and Wall Tiles
  (white HPC-coated)
  ASTM E1477, Light reflectance = 0.87
- HARMONI Ceiling Tiles
  (white HPC-coated)
  ASTM E1477, Light reflectance = 0.87
- SONEX One and Valueline Panels and Baffles
  (natural white melamine foam or white HPC-coated)
  ASTM E1477, Light reflectance = 0.87
- SONEX Classic, Junior, Mini and Pyramid Panels
  (natural white melamine foam or white HPC-coated)
  ASTM E1477, Light reflectance = 0.87
- WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awnings
  (natural white melamine foam or white HPC-coated)
  ASTM E1477, Light reflectance = 0.87
- willtec Linear Absorbers
  (natural white melamine foam or white HPC-coated)
  ASTM E1477, Light reflectance = 0.87
LEED-NC Innovation and Design Process
Credit 1.1
Innovation in Design
pinta acoustic’s products are extremely lightweight, reducing transportation energy and structural load on the building.

Products:
- WHITELINE® Ceiling Tiles
- CONTOUR® Ceiling and Wall Tiles
- HARMONI Ceiling Tiles
- SONEX® Rondo Baffles
- SONEX One and Valueline Panels and Baffles
- SONEX Classic, Junior, Mini and Pyramid Panels
- WHISPERWAVE™ Panels, Baffles, Ceiling Clouds and Awnings
- willtec® Linear Absorbers

The high acoustic performance of pinta’s products helps create safer and more efficient environments through reduction of unwanted noise and reverberation.

Products:
- WHITELINE Ceiling Tiles
- CONTOUR and Wall Ceiling Tiles
- HARMONI Ceiling Tiles
- SQUARELINE® Metal Ceiling Tiles
- BIOLINE Wood Ceiling Tiles
- FABRITEC Wall Panels
- PHONSTOP Ceiling and Wall Tiles
- SONEX Rondo Baffles
- SONEX One and Valueline Panels and Baffles
- SONEX Classic, Junior, Mini and Pyramid Panels
- WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awnings
- willtec Linear Absorbers
- PROSPECT Decibel Drop Viscoelastic Damping Compound
- PROSPECT® Barriers, Foam and Composites

LEED Credit for School Indoor Environmental Quality
EQ Prerequisite 3
Minimum Acoustical Performance
pinta acoustic’s products can help to achieve the acoustical requirements of ANSI 12.60 – 2002.

Products:
- WHITELINE Ceiling Tiles
- CONTOUR Ceiling and Wall Tiles
- HARMONI Ceiling Tiles
- SQUARELINE Metal Ceiling Tiles
- BIOLINE Wood Ceiling Tiles
- FABRITEC Wall Panels
- PHONSTOP Ceiling and Wall Tiles
- SONEX Rondo Baffles
- SONEX One and Valueline Panels and Baffles
- SONEX Classic, Junior, Mini and Pyramid Panels
- WHISPERWAVE Panels, Baffles, Ceiling Clouds and Awnings
- willtec Linear Absorbers
- PROSPECT Decibel Drop Viscoelastic Damping Compound
- PROSPECT® Barriers, Foam and Composites
pinta acoustic, inc. is a manufacturer of acoustical and noise control solutions for the architectural, broadcast/studio, facility management and industrial markets.

Company name change
illbruck acoustic, inc. changed its name to pinta acoustic, inc. on May 31st 2007, and it is a company of pinta elements, GmbH, based in Germany.

Placed orders, pricing and product presentations
pinta acoustic, inc. has architectural representatives and distributors available to present products to you. If you would like pricing or a personalized visit, please contact the local representative or distributor. This information is available on our website at www.pinta-acoustic.com/distributors. Customer service is available at 1-800-662-0032 or sales@pinta-acoustic.com.

Product overview
Many of our foam products feature willtec®, a porous melamine foam, which has exceptional sound absorbing capabilities and is Class 1(A) fire-rated. Our acoustic product lines continuously expand to include new innovative acoustic materials such as wood, metal, sintered glass and a viscoelastic damping compound.

Complete product information, installation guides, application profiles, 3-part specifications and a photo gallery are available at www.pinta-acoustic.com.

Custom colors
If one of our standard color options does not suit your needs, pinta acoustic, inc. offers custom colors. Minimum orders, longer lead times and setup charges apply to all custom color orders.

Literature and samples
To order samples, additional literature, binders and color charts, please call 1-800-662-0031, fax your request to +1 (612) 355-4255 or e-mail sales@pinta-acoustic.com. Please include complete contact and shipping information.

Limitation of warranty and claims
pinta acoustic, inc. warrants to the original purchaser that the goods sold shall be free from defects in workmanship and materials under normal use and service for a period of one (1) year from the date of shipment. This warranty, as it applies to foam products, does not apply to fluctuations in pore sizes, spattering, color fastness and color deviations from specifications.

This warranty is expressly in lieu of all other warranties, expressed or implied, whether statutory or otherwise, including any implied warranty of merchantability or fitness for a particular purpose. pinta acoustic, inc.’s liability for breach of warranty shall arise only upon the return of the defective goods after notice to pinta acoustic, inc. of the claimed breach and shall be limited to replacing or repairing such goods as upon pinta acoustic, inc. examination, determines to be defective in material and workmanship. Notice to pinta acoustic, inc. of any claimed defects discovered by the buyer’s inspection must be given within ten (10) days after receipt of shipment.

In no event shall pinta acoustic, inc. be liable to buyer for any indirect, incidental, special or consequential damages and expenses, including attorney’s fees, which the buyer may sustain or incur as a result of any claim of negligence, breach of warranty, or strict liability in tort in connection with the use of the goods furnished hereunder, except such as may be wholly caused by negligence of pinta acoustic, inc.

Disclaimer
pinta acoustic, inc. reserves the right to make changes without notice in specifications, design, construction, dimension or color of any of its products at any time and to discontinue without notice the manufacture or sale of any products. pinta acoustic, inc. cannot be held liable for the selection or application of its products.

Shipping
United Parcel Service (UPS) is the preferred carrier. All shipments will be sent via ground service with charges paid by the customer unless negotiated otherwise. In the case of large shipments or those that require special routing, please make arrangements prior to the purchase order being issued.
## Product Attributes

<table>
<thead>
<tr>
<th>Product</th>
<th>Surface</th>
<th>Finish</th>
<th>Profile</th>
<th>Installation</th>
<th>Colors</th>
<th>Acoustic Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOLINE® Solid-Finish Wood Ceiling and Wall Tiles</td>
<td>Wood</td>
<td>Wood veneer</td>
<td>Self-centering revealed edge</td>
<td>Drop-in ceiling grid</td>
<td>Maple, beech, cherry natural, cherry red, bamboo natural or bamboo caramel</td>
<td>N/A</td>
</tr>
<tr>
<td>BIOLINE Solid-Finish Perforated Wood Ceiling and Wall Tiles</td>
<td>Wood</td>
<td>Wood veneer</td>
<td>Self-centering revealed edge</td>
<td>Drop-in ceiling grid</td>
<td>Maple, beech, cherry natural, cherry red, bamboo natural or bamboo caramel</td>
<td>NRC 0.40</td>
</tr>
<tr>
<td>BIOLINE Linear Wood Ceiling Tiles</td>
<td>Wood</td>
<td>Wood veneer</td>
<td>Flat</td>
<td>Varies, contact factory</td>
<td>Maple, beech, cherry natural, cherry red, bamboo natural or bamboo caramel</td>
<td>N/A</td>
</tr>
<tr>
<td>BIOLINE Organic-Texture Wood Ceiling and Wall Tiles</td>
<td>Wood</td>
<td>Wood fiber</td>
<td>Self-centering revealed edge</td>
<td>Drop-in ceiling grid</td>
<td>Light, medium or dark shades</td>
<td>NRC 0.55, 0.65*, 0.80*</td>
</tr>
<tr>
<td>SQUARELINE® Standard Metal Ceiling Tiles</td>
<td>Expanded metal</td>
<td>Powder-coated</td>
<td>Flat or beveled</td>
<td>Drop-in ceiling grid</td>
<td>Chrome, white or black metal with light grey or charcoal insert</td>
<td>NRC 0.55</td>
</tr>
<tr>
<td>SQUARELINE Medium Metal Ceiling Tiles</td>
<td>Expanded metal</td>
<td>Powder-coated</td>
<td>Flat</td>
<td>Drop-in ceiling grid</td>
<td>Chrome, white or black metal with light grey or charcoal insert</td>
<td>NRC 0.55</td>
</tr>
<tr>
<td>SQUARELINE Ultra Metal Ceiling Tiles</td>
<td>Expanded metal</td>
<td>Powder-coated</td>
<td>Flat</td>
<td>Drop-in ceiling grid</td>
<td>Chrome, white or black metal with light grey or charcoal insert</td>
<td>NRC 0.55</td>
</tr>
<tr>
<td>PHONSTOP® Ceiling Tiles</td>
<td>Lightly textured</td>
<td>Sintered glass</td>
<td>Slightly beveled square</td>
<td>Drop-in ceiling grid</td>
<td>White or custom</td>
<td>NRC 0.70</td>
</tr>
<tr>
<td>PHONSTOP Wall Tiles</td>
<td>Lightly textured</td>
<td>Sintered glass</td>
<td>Slightly beveled square</td>
<td>Adhesive and other</td>
<td>White or custom</td>
<td>NRC 0.70 – 0.90</td>
</tr>
<tr>
<td>CONTOUR® Ceiling and Wall Tiles for Grid Installation</td>
<td>Smooth, patterned or custom</td>
<td>HPC coated</td>
<td>Beveled</td>
<td>Drop-in ceiling grid</td>
<td>White, almond, light grey, black or custom</td>
<td>NRC 0.95 – 1.20</td>
</tr>
<tr>
<td>CONTOUR Ceiling and Wall Tiles for Adhesive Installation</td>
<td>Smooth, patterned or custom</td>
<td>HPC coated</td>
<td>Beveled</td>
<td>Adhesive</td>
<td>White, almond, light grey, black or custom</td>
<td>NRC 0.65 – 0.90</td>
</tr>
<tr>
<td>HARMONI Ceiling Tiles</td>
<td>Smooth or softly sculpted pattern</td>
<td>HPC coated</td>
<td>Tegular</td>
<td>Drop-in ceiling grid</td>
<td>White, almond, light grey, black or custom</td>
<td>NRC 0.90</td>
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<tr>
<td>WHITELINE® Ceiling Tiles</td>
<td>Smooth fleece</td>
<td>Fleece</td>
<td>Flat</td>
<td>Drop-in ceiling grid</td>
<td>White or black</td>
<td>NRC 0.75</td>
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<tr>
<td>FABRITEC Wall Panels</td>
<td>Fabric-wrapped</td>
<td>Fabric</td>
<td>Beveled or square</td>
<td>Adhesive and other</td>
<td>All Guilford fabrics, Maharam or any other fabric including vinyl</td>
<td>NRC 0.85</td>
</tr>
<tr>
<td>SONEX® Panels</td>
<td>Various sculpted patterns</td>
<td>Natural, painted or HPC coated</td>
<td>Some beveled</td>
<td>Adhesive and other</td>
<td>White, almond, light grey, beige, charcoal, blue, brown, black or custom</td>
<td>NRC 0.70 – 1.10</td>
</tr>
</tbody>
</table>

* using willtec® acoustical foam or fiberglass backer
<table>
<thead>
<tr>
<th>Product</th>
<th>Surface</th>
<th>Finish</th>
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<th>Installation</th>
<th>Colors</th>
<th>Acoustic Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SONEX Baffles</td>
<td>Various sculpted patterns</td>
<td>Natural, painted or HPC coated</td>
<td>Some beveled</td>
<td>Cable or ceiling suspension</td>
<td>White, almond, light grey, beige, charcoal, blue, brown, black or custom</td>
<td>Sabins 12.7 – 15.1</td>
</tr>
<tr>
<td>SONEX® Clean Baffles</td>
<td>Smooth</td>
<td>FR taffeta vinyl</td>
<td>Square</td>
<td>Cable or ceiling suspension</td>
<td>White, black, cobalt, scarlet, raspberry, Cinnamon, forest, spring green, peach, teal, grape mist, violet, slate, sunglow, lemon, French vanilla, Caribbean or custom</td>
<td>Sabins 8.20</td>
</tr>
<tr>
<td>SONEX Clean Ceiling Tiles</td>
<td>Smooth</td>
<td>FR taffeta vinyl</td>
<td>Square</td>
<td>Drop-in ceiling grid</td>
<td>Natural, painted or HPC coated</td>
<td>NRC 0.75</td>
</tr>
<tr>
<td>SONEX Clean Wall Panels</td>
<td>Smooth</td>
<td>FR taffeta vinyl</td>
<td>Square</td>
<td>Adhesive and other</td>
<td>White, black, cobalt, scarlet, raspberry, Cinnamon, forest, spring green, peach, teal, grape mist, violet, slate, sunglow, lemon, French vanilla, Caribbean or custom</td>
<td>NRC 0.80</td>
</tr>
<tr>
<td>pinta RONDO™ Baffles</td>
<td>Smooth</td>
<td>Natural</td>
<td>Round</td>
<td>Cable or ceiling suspension</td>
<td>White or light grey</td>
<td>Sabins 12.7 – 15.1</td>
</tr>
<tr>
<td>WHISPERWAVE™ Awnings</td>
<td>Smooth</td>
<td>Natural, painted or HPC coated</td>
<td>Square</td>
<td>Wall track and ceiling-mounted cable suspension</td>
<td>White, almond, light grey, beige, charcoal, blue, brown, black or custom</td>
<td>Sabins 45.3</td>
</tr>
<tr>
<td>WHISPERWAVE Baffles</td>
<td>Smooth</td>
<td>Natural, painted or HPC coated</td>
<td>Square</td>
<td>Cable or ceiling suspension</td>
<td>White, almond, light grey, beige, charcoal, blue, brown, black or custom</td>
<td>Sabins 12.7 – 15.0</td>
</tr>
<tr>
<td>WHISPERWAVE Ceiling Clouds</td>
<td>Smooth</td>
<td>Natural, painted or HPC coated</td>
<td>Square</td>
<td>Cable or ceiling suspension</td>
<td>White, almond, light grey, beige, charcoal, blue, brown, black or custom</td>
<td>Sabins 45.3</td>
</tr>
<tr>
<td>WHISPERWAVE Panels</td>
<td>Smooth</td>
<td>Natural, painted or HPC coated</td>
<td>Square</td>
<td>Adhesive and other</td>
<td>White, almond, light grey, beige, charcoal, blue, brown, black or custom</td>
<td>NRC 0.85 – 1.10</td>
</tr>
<tr>
<td>willtec® Linear Absorbers</td>
<td>Smooth</td>
<td>Natural</td>
<td>Varies</td>
<td>Metal channel or adhesive</td>
<td>White</td>
<td>NRC 0.70 – 1.10</td>
</tr>
<tr>
<td>PROSPEC Decibel Drop™ Viscoelastic Damping Compound</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>1-quart caulking gun</td>
<td>Blue</td>
<td>STC 50 - 62</td>
</tr>
</tbody>
</table>
Education

Project Information

Product: SONEX® Panels
Application: Children’s Museum Gallery
Architect: Architecture Incorporated

Product: SONEX Panels
Application: Elementary school multipurpose room and cafeteria

Product: SONEX Panels
Application: Indoor pool

Product: SONEX Panels
Application: Gymnasium

To learn more about these and other applications, visit our website at www.pinta-acoustic.com/edu.
Education
Project Information

Product: SONEX® Baffles
Application: Gymnasium

Product: WHITELINE® Ceiling Tiles
Application: Lecture Hall

Product: CONTOUR® Ceiling Tiles
Application: Atrium
Architect: Turok Architecture, Inc.

Product: FABRITEC Panels and SONEX Baffles
Application: High school gym

Product: WHITELINE® Ceiling Tiles
Application: Lecture Hall

To learn more about these and other applications, visit our website at www.pinta-acoustic.com/edu.
Entertainment and Hospitality

Project Information

Product: SQUARELINE® Metal Ceiling Tiles
Application: Stadium
Architect: Hammel, Green and Abrahamson

Product: SQUARELINE Metal Ceiling Tiles
Application: Museum Gallery
Architect: Ennead architects

Product: BIOLINE® Organic Wood Ceiling Tiles, SQUARELINE Metal Ceiling Tiles
Application: Restaurant
Architect: Bentel and Bentel

Product: SONEX® Panels
Application: Children’s Museum Gallery
Architect: Architecture Incorporated

To learn more about these and other applications, visit our website at www.pinta-acoustic.com/ent.
**Entertainment and Hospitality**

**Project Information**

**Product:** SQUARELINE® Metal Ceiling Tiles  
**Application:** Fitness Facility  
**Architect:** Kirksey Architecture

**Product:** WHISPERWAVE™ Baffles  
**Application:** Retail  
**Architect:** Studio 3 Designs

**Product:** SQUARELINE Metal Ceiling Tiles  
**Application:** Theater performing arts  
**Architect:** Beyer Blinder Belle Architects and Planners, LLP

**Product:** SONEX® Rondo Baffles  
**Application:** Indoor Swimming Pool  
**Artist:** Xavier Cortada

To learn more about these and other applications, visit our website at [www.pinta-acoustic.com/ent](http://www.pinta-acoustic.com/ent).
Office

Project Information

Product: SQUARELINE® Metal Ceiling Tiles
Application: adidas Village lobby and entrance
Architect: LRS Architects

Product: PHONSTOP™ Ceiling Tiles
Application: Cafeteria
Architect: RSP Architects

Product: PHONSTOP Ceiling Tiles
Application: Common area
Architect: Architectural Resources Group, Inc.

Product: SQUARELINE Metal Ceiling Tiles
Application: Building lobby and entrance

To learn more about these and other applications, visit our website at www.pinta-acoustic.com/office.
Office

Project Information

Product: CONTOUR® Ceiling Tiles
Application: Cafeteria
Architect: Turok Architecture, Inc.

Product: PHONSTOP™ Ceiling Tiles
Application: Multipurpose area
Architect: Architectural Resources Group, Inc.

Product: SQUARELINE Metal Ceiling Tiles
Application: Conference room
Architect: LRS Architects

Product: SQUARELINE® Metal Ceiling Tiles
Application: Lobby

To learn more about these and other applications, visit our website at www.pinta-acoustic.com/office.
Religious
Project Information

Product: Custom willtec® Ceiling Tiles
Application: Chapel
Architect: Minnesota Air National Guard

Product: SONEX® Panels
Application: House of worship

Product: SONEX Valueline Panels
Application: House of worship

Product: SONEX Panels
Application: Multipurpose room

To learn more about these and other applications, visit our website at www.pinta-acoustic.com/religious.
Glossary

**Absorption**
The properties of a material composition to convert sound energy into heat, thereby reducing the amount of energy that can be reflected.

**Acoustical**
The properties of a material that absorb or reflect sound.

**Acoustical Analysis**
A review of a space to determine the level of reverberation, or reflected sound, in the space (in seconds) as influenced by the building materials used to construct the space. Also, a study of the amount of acoustical absorption required to reduce reverberation and noise.

**Acoustical Consultant**
A professional, usually with an engineering degree, whose primary role is to provide advice on acoustical requirements and noise control in a variety of situations.

**Acoustical Environment**
The acoustical characteristics of a space or room influenced by the amount of acoustical absorption, or lack thereof, in the space.

**Acoustics**
The science or study of sound: its production, transmission and effects.

**Architectural Acoustics**
The control of noise in a building space to adequately support the communication functions within the space and its effect on the occupants. The qualities of the building materials used to determine its character with respect to distinct hearing.

**Area Effect**
Acoustical materials spaced apart can have greater absorption than the same amount of material pushed by soft exposed edges and also to diffraction of sound energy around panel perimeters.

**Articulation Class**
A single number rating used for comparing acoustical ceilings and acoustical screens for speech privacy purposes. AC values increase with increasing privacy and range from approximately 100 – 250. This classification supersedes Speech Privacy Noise Isolation Class (NIC) rating method.

**Articulation Index (AI)**
A measure of speech intelligibility influenced by acoustical environment rated from 0.01 to 1.00. The higher the number, the higher the intelligibility of words and sentences understood from 0 – 100%.

**Attenuation**
The reduction of sound energy as a function of distance traveled.

**Audiogram**
A chart or table relating hearing level for pure tones to frequency.

**Audiometer**
An instrument for measuring hearing acuity.

**A-Weighted Sound Level (Noise Level)**
A measure of sound pressure level designed to reflect the response of the human ear, which does not respond equally to all frequencies. The ear is less efficient at low and high frequencies than at medium or speech-range frequencies. To describe sound in a manner representative of the human ear's response it is necessary to reduce the effects of the low and high frequencies with respect to the medium frequencies. The resulting sound level is said to be A-weighted, and the units are dBA. The A-weighted sound level is also called the noise level. Sound level meters have an A-weighting network for measuring A-weighted sound levels. Most levels of occupational, industrial and environmental noise are measured using A-weighting.

**Baffle**
A free hanging acoustical sound absorbing unit. Normally suspended vertically in a variety of patterns to absorb and therefore reduce reverberation and noise levels.

**Barrier**
A material that when placed around a source of noise inhibits the transmission of that noise beyond the barrier. Also, an environment or any physical thing that interferes with communication or listening. For example, a poor acoustical environment can be a barrier to good listening, especially for individuals with a hearing impairment.

**Bel**
A measurement of sound intensity, named in honor of Alexander Graham Bell, which equals 10 decibels. Initially used to relate intensity to a level corresponding to hearing sensation.

**Boominess**
Low frequency reflection. In small rooms, acoustical panels with air space behind can better help control low frequency reflectivity.

**Ceiling Attenuation Class (CAC)**
A single number rating used to compare the efficiency of an acoustic ceiling as a barrier to sound transmitting between adjacent rooms sharing a common ceiling plenum.
Cloud
An acoustical panel suspended in a parallel position, horizontal from ceiling/roof structure. Similar to a baffle, except positioned horizontally.

Cochlea
A snail shaped mechanism in the inner ear that contains hair cells of basilar membrane that vibrate to aid in frequency recognition.

Cocktail Party Effect
Sound in a noisy crowded room generated mostly by conversation. Levels rise and fall as people compete with one another to be heard. Perception of speech can be nearly impossible in high levels of noise.

Cycle
In acoustics, the cycle refers to the complete oscillation of pressure above and below the atmospheric static pressure.

Cycles Per Second
The number of oscillations that occur in the time frame of one second (see frequency). Low frequency sounds have fewer and longer oscillations.

Damping
The dissipation of energy with time or distance. The term is generally applied to the attenuation of sound in a structure owing the internal sound dissipative properties of the structure or to the addition of sound dissipative materials.

Decibel (dB)
Sound level in Bels as a logarithmic ration. Sound intensity is described in decibels. For example: breathing, 5 dB; office activity 50 dB; jet aircraft during takeoff at a distance of 300', 130 dB.

Diffusion
The scattering or random reflection of a sound wave from a surface. The directions of reflected sound are changed so that listeners may have sensation of sound coming from all directions at equal levels.

Echo
Reflected sound producing a distinct repetition of the original sound. In mountains, echo is distinct because the sound waves travel after the original signal has ceased.

Echo Flutter
Short echoes in small reverberative spaces that produce a clicking, ringing or hissing sound after the original sound signal has ceased. Flutter echoes may be present in long narrow spaces with parallel walls.

Equal Loudness Contours
Curves represented in graph form as a function of sound level and frequency, which listeners perceive as being equally loud. High frequency sounds above 2,000 Hz are more annoying. Human hearing is less sensitive to low frequency sound (also see Phon).

Free Field
Sound waves from an outdoor source where there are no obstructions.

Frequency
The number of oscillations, or cycles, per unit of time. Acoustical frequency is usually expressed in units of Hertz (Hz) where one Hz is equal to one cycle per second.

Frequency Analysis
An analysis to determine the character of a sound (i.e. high vs. low frequency) by measuring the amount of resonance at various frequencies that compose the overall sound spectrum.

Hearing Impairment
A degree of hearing loss, temporary or permanent, due to numerous causes, such as an illness, disease, or exposure to excessively high noise levels. Affecting 20 – 50 million people of all ages in the U.S., hearing impairment generally means a hearing loss, from a mild to severe degree. As opposed to “deafness”, which is generally described as little or no redial hearing with or without the aid of a listening device. Hearing-impaired persons are particularly adversely affected by long reverberation times.

Hearing Range
16 – 20,000 Hz (speech intelligibility)
600 – 4,800 Hz (speech privacy)
250 – 2,500 Hz (typical small table radio)

Hertz (Hz)
Frequency of sound expressed by cycles per second (see cycle).

Inverse Square Law
Newton's mathematical equation, proving for every given distance traveled from the source, sound levels drop 6 dB.

Intensity/Loudness
A listener’s auditory impression of the strength of a sound. The average deviation above and below the static value due to a sound wave is called sound pressure. The energy expended during the sound wave vibration is called intensity and is measured in intensity units. Loudness is the physical resonance to sound pressure and intensity.
Glossary

Masking
The process by which the threshold of hearing of one sound is raised due to the presence of another sound.

Mounting
Standards established by ASTM to test the acoustics of materials by representing a typical installation. Type A Mounting—test specimen laid directly against the test surface. Type B Mounting—test specimen cemented to gypsum board and laid directly against the test surface. Type E Mounting—test specimen mounted with an air space behind it.

Noise
Unwanted sound that is obtrusive or interferes with listening. To qualify as interference, noise does not have to be excessively loud.

Noise Criteria (NC)
Noise criteria curves evaluate existing listening conditions by measuring sound levels (preferably at ear level) at the loudest locations in a room. Noise criteria may also be referred to as dBA levels.

Noise Isolation Class (NIC)
A single number rating of the degree of speech privacy achieved through the use of an acoustical ceiling and sound absorbing screens in an open office. Articulation Class (AC) rating method has replaced NIC.

Noise Reduction (NR)
The amount of noise that is decreased through the introduction of sound absorbing materials. The level (in decibels) of sound reduced on a logarithmic basis.

Noise Reduction Coefficient (NRC)
The NRC of an acoustical material is the mathematical average, to the nearest multiple of 0.05, of its sound absorption coefficients at center frequencies of 250, 500, 1000, 2000 Hz. Also see sound absorption coefficient.

Octave
A pitch interval of 2 to 1. A tone whose frequency is twice that of a given tone.

Octave Bands
Sounds that contain energy over a wide range of frequencies are divided into sections called bands. A common standard division is in 10 octave bands identified by their center frequencies 31.5, 63, 250, 500, 1000, 2000, and 4000 Hz.

Phon
Loudness contours. A subjective impression of equal loudness by listeners as a function of frequency and sound level (dB). An increase in low frequency sound will be perceived as being much louder than an equivalent high frequency increase.

Pitch
The perceived auditory sensation of sounds expressed in terms of high or low frequency stimulus of the sound.

Reflection
The amount of sound wave energy (sound) that is rebounded from a surface. Hard non-porous surfaces reflect more sound than soft porous surfaces. Some sound reflection can enhance the quality of the signal of speech and music.

Resonance
The emphasis of sound at a particular frequency.

Reverberation
Sound after its source has ended will continue to reflect off surfaces until the sound waves lose energy by absorption, to eventually die out. Reverberation has an important impact on speech intelligibility.

Reverberation Time (RT60 or T60)
The time taken for sound to decay 60 dB to 1/1,000,000 of its original sound level after the sound source has stopped. Sound after its source has ended will continue to reflect off surfaces until the wave loses enough energy by absorption to eventually die out. Reverberation time is the basic acoustical property of a room, which depends only on its dimensions and the absorptive properties of its surfaces and content.

Sabin
A unit of sound absorption based on one square foot of material. Baffles are frequently described as providing X number of sabins of absorption based on the size of the baffle tested through the standard range of 125 – 4000 Hz. The amount of sabins developed by other acoustical materials is determined by the amount of material used and its absorption coefficients.

Sabine Formula
A formula, developed by Wallace Clement Sabine, that allows designers to plan reverberation time in a room in advance of construction and occupancy. Defined and improved empirically, the Sabine Formula is \( T=0.049(V/A) \) where \( T= \)reverberation time (time required for sound to decay 60 dB after source has stopped) in seconds. \( V= \)volume of room in cubic feet. \( A= \)total square footage of absorption in sabins.

Septum
A thin layer of material, such as foil, lead, steel, etc., between 2 layers of absorptive materials, that prevents sound waves from passing through the absorptive material.
Glossary

**Signal to Noise (S/N) Ratio**
The sound level of a speaker above background noise, at the listener’s ear level. The inverse square law impacts the S/N ratio.

**Sound**
Sound is an oscillation of pressure, stress particle displacement and particle velocity in a medium. Sound produces an auditory sensation caused by oscillation.

**Sound Absorption**
The property possessed by materials, objects and air to convert sound energy into heat. Sound waves reflected by a surface cause a loss of energy. The energy not reflected is referred to as the sound absorption coefficient.

**Sound Absorption Coefficient**
The fraction of sound energy, striking a material or object that is not reflected. For instance, if a material reflects 70% of the sound energy incident upon its surface, then its Sound Absorption Coefficient is 0.30. SAC = absorption/area in sabins per square foot.

**Sound Level**
A subjective measure of sound expressed in decibels as a comparison corresponding to familiar sounds experienced in a variety of situations.

**Sound Level Meter**
A device that converts sound pressure variations in the air into corresponding electronic signals. The signals are filtered to exclude sound waves outside the desired frequencies.

**Sound Pressure Level (SPL)**
An important measure of sound loudness, the level is calculated in decibels by 20 times the logarithm to the base 10 of the ratio of the measured sound pressure level and the reference point.

**Sound Transmission Class (STC)**
A single-number system used to rate the sound transmission performance of a wall, panel, ceiling, etc. The higher the ranking, the better the ability to obstruct sound transmission.

**Spectrum**
The description of sound wave’s components of frequency and amplitude.

**Speech Intelligibility**
The ability of a listener to hear and correctly interpret verbal messages. In a classroom with high ceilings and hard parallel surfaces such as glass and tile, speech intelligibility is a particular problem. Sound bounces off walls, ceilings and floors, distorting the teacher’s instructions and interfering with students’ ability to comprehend.

**Speech Privacy**
Degree to which speech is unintelligible between rooms. Three ratings are used: confidential, normal (non-obtrusive) and minimal.

**Time Weighted Average (TWA)**
The measure used by the Occupational Safety and Health Administration (OSHA) to measure noise levels in the workplace. It is equal to a constant sound level lasting eight hours that would cause the same hearing damage as the variable noises that a worker is actually exposed to. (This hearing loss, of course, occurs over long-term exposure.) Same as LOSHA.

**Ultrasounds**
Sounds of a frequency higher than 20,000 Hz. The frequency region containing these frequencies is called the ultrasonic region.

**Volume**
The cubic space of a room bounded by walls, floors and ceilings determined by the mathematical equation [volume = length x width x height]. Volume influences reverberation time.

**Wavelength**
Sound that passes through air produces a wavelike motion of compression and refraction. Wavelength is the distance between two identical positions in the cycle or wave. Similar to ripples (waves) produced by dropping a stone in water. Length of sound wave varies with frequency: low frequency is created by longer wavelengths, whereas high frequency is produced by shorter wavelengths.