

# LYRA<sup>®</sup> PB Direct-Apply

## Assembly and Installation Instructions

Item #	Description	Size	Sold by the	SF per Carton
<b>Ceiling Panel Items</b>				
8400PB, 8400PBBK	LYRA <sup>®</sup> PB Direct-Apply w/ Painted Edges	24 x 24 x 1"	CTN	96
8401PB, 8401PBBK	LYRA PB Direct-Apply w/ Painted Edges	24 x 48 x 1"	CTN	96
8402PB, 8402PBBK	LYRA PB Direct-Apply w/ Painted Edges	24 x 60 x 1"	CTN	60
8403PB, 8403PBBK	LYRA PB Direct-Apply w/ Painted Edges	24 x 72 x 1"	CTN	72
8404PB, 8404PBBK	LYRA PB Direct-Apply w/ Painted Edges	48 x 48 x 1"	CTN	96
<b>Accessories and Tools – Provided by others</b>				
Item	Item Details			
Recommended Adhesive	Titebond <sup>®</sup> GREENchoice Acoustical Ceiling Tile Adhesive			
Trowel	Notched – 1/4 x 1/2 x 1/4"			
Gloves	Clean White			
Sponge Float				

### 1. GENERAL

#### 1.1 Product Description

These instructions cover the installation of Armstrong<sup>®</sup> Ceilings Lyra<sup>®</sup> PB Direct-Apply acoustical panels directly applied with adhesive to painted gypsum, concrete, or corrugated metal ceiling surfaces.

#### 1.2 Safety

During the installation be certain that the work site is well ventilated, and avoid breathing dust. If high dust levels are anticipated during installation such as with the use of power tools, use appropriate NIOSH designated dust respirator. All power cutting tools must be equipped with dust collectors. Avoid contact with skin or eyes. Wear long-sleeved, loose-fitting clothes, gloves, and eye protection.

#### 1.3 Warranty

Failure to follow the Armstrong Ceilings recommended installation instructions in effect at the time of installation will void any product and/or ceiling system warranty.

#### 1.4 Surface Finish

Panels feature an acoustically transparent membrane with white or black factory-applied latex paint.

#### 1.5 Storage & Handling

The ceiling panels shall be stored in a dry interior location and shall remain in cartons prior to installation to avoid damage. The cartons shall be stored in a flat position. Proper care should be taken when handling to avoid damage or soiling. Panels up to 2' x 5' can be installed by one person. Larger panels may require two people for proper handling and installation.

#### 1.6 Site Conditions

Ensure site condition relative humidity is less than 70%. Building areas to receive ceilings shall be free of construction dust and debris.

The area of installation, adhesive, and panels should be conditioned at 65°F or above for 48 hours prior, during, and 48 hours after the installation is complete.

Lyra PB panels attached to the deck with adhesives must be installed where the building is enclosed and the HVAC system is functioning and in continuous operations for the life of the product. All wet work (plastering, concrete, etc.) must be complete and dry.

These products are not recommended for exterior applications where standing water is present, or where moisture will come into direct contact with the ceiling.

### 1.7 Cleaning/Maintenance

Use a clean, dry, soft, white cloth to wipe off any dirt or greasy fingerprints. If this does not clean the panel, use a damp, clean, soft, white cloth or sponge with a mild detergent to wipe the panel. Remove any remaining moisture with a dry cloth.

## 2. DESIGN AND INSTALLATION CONSIDERATIONS

### 2.1 Area Preparation:

Surfaces must be dry and free of dust, grease, oil, dirt or any other material that may deter adhesion. If the paint is flaking or peeling it must be removed. Existing finish paint must be well-bonded and not flaking or peeling.

### 2.2 Painted Surfaces:

Avoid applying to a newly painted ceiling. Glossy painted surfaces must be abraded. For painted or sealed surfaces, install a small test area and observe after 12 hours. For plaster ceilings, plaster must be painted, non-chipping, and smooth.

### 2.3 Surface Flatness:

To ensure a finished installation that is level, it is recommended that the ceiling surface for attachment be free of irregularities and be level within 1/4" in 12'.

## 3. DRYWALL/CONCRETE/PLASTER INSTALLATIONS

3.1 For drywall, concrete, and plaster installations with Lyra® PB panels, reference the follow sections.

**Do NOT mix adhesive application methods (trowel lines vs trowel spots) within the same space as it can cause unevenness in the finish height of the panels.**

The Titebond® GREENchoice Acoustical Ceiling Tile Adhesive provides a secure bond and does not require any supplemental mechanical attachment as long as these instructions are followed.

### 3.2 Spot Trowel Method (ceilings level within 1/4" in 12')

Panels should have at least a 1/4" gap between edges. This will help alleviate slight differences in the levelness of adjacent panel faces. You may benefit from increased spacing if 1/4" is not sufficient enough to mask discrepancies in levelness.

Using a trowel with 1/4 x 1/2 x 1/4" notches, apply the adhesive to the locations as shown in Section 3.7, per the panel size you are using. Your adhesive spots should be no less than 4" x 4" in size each, and no greater than 5" x 5".

The edge of your glue spots should be no more than 3" away from the edge of your panel for glue spots around the edges.

3.3 Once in position, push the panel against the ceiling applying even hand pressure to the board where the adhesive is located in the center first, followed immediately by the edges of the panel. By attaching the center first, you can still pivot the panel slightly left or right before adhering the edges. This ensures that the panel can be aligned correctly first before the edges are solidified into place. Avoid excessive pressure to minimize panel flexing that will disturb the previously pressed areas of adhesive and result in release of the adhesive. Lastly, press a sponge float across all areas of the panel where glue was applied to ensure all glue spots/lines are properly compressed and adhere to the drywall or concrete.

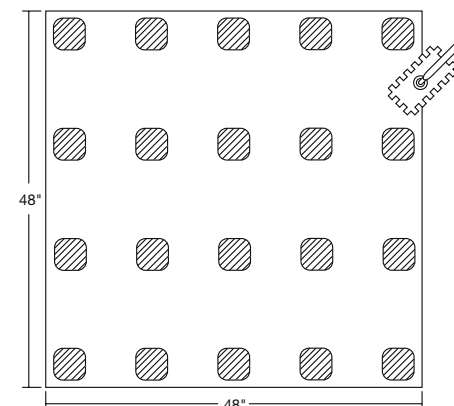
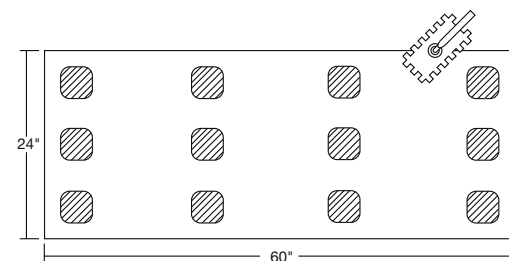
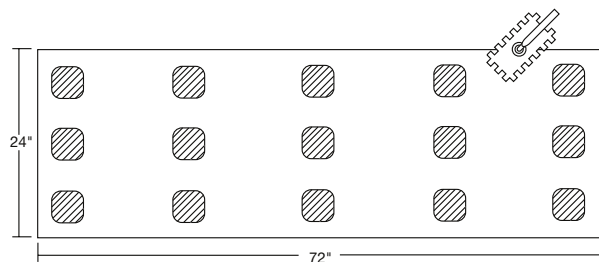
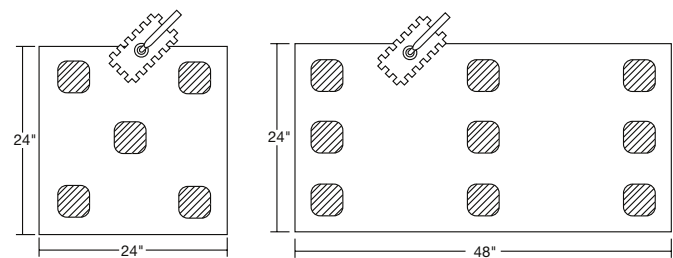
3.4 Any slight adjustments to the panel placement should be done immediately to not weaken the adhesive bond once it has started to set; once the panel is evenly pressed into position the adhesive should provide an immediate bond to hold the panel in place while the adhesive sets.

3.5 Measure adjacent panel edges to check levelness as panels are installed; the levelness of the finish face of adjacent panels should be within 1/8" to ensure a satisfactory visual.

3.6 For wall installations, follow steps 3.1-3.4 and apply the same methods in the vertical. The bottom edge of the panel should be at least 6' from the floor to avoid damage.

**NOTE:** Panel creep may occur as the glue is setting. Panels should creep no more than 1/8" during installations.

### 3.7 Location of Panel Adhesive



#### 4. METAL DECK INSTALLATIONS

For painted metal deck installations with Lyra® PB panels, reference the follow sections.

**NOTE:** InvisAcoustics™ Direct-Aply panels are NOT compatible with metal deck installations.

##### 4.1 The Trowel Line Method (ceilings level within 1/4" in 12')

Panels should have at least a 1/4"-3/8" reveal between edges. This will help alleviate slight differences in the levelness of adjacent panel faces. See Section 4.7 for more details on panel spacing.

#### PANEL INSTALLATION

**4.2** Your glue lines should be 20" long and 4" wide (with the exception of 48" x 48" boards which require 42" long by 4" wide glue lines). Refer to the chart below to determine how best to apply glue to the panel. After determining how many glue lines are needed for your panel, determine the pitch of your deck to see where to place the lines on the panel so they align with the lower flanges of the deck.

Number of Glue Lines	
Product Size	3" Wide Bottom Flange of Deck or Greater
24" x 24"	2
24" x 48"	4
24" x 60"	4
24" x 72"	5
48" x 48"	4

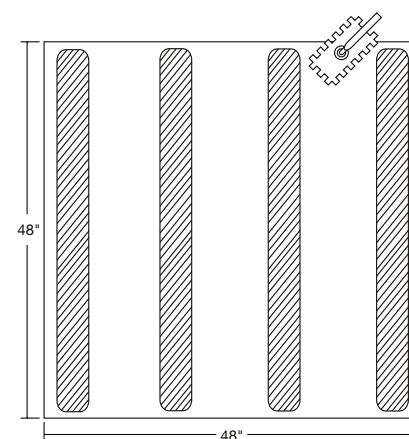
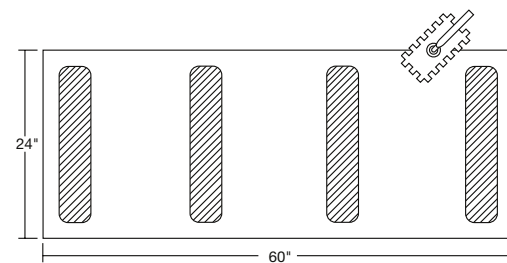
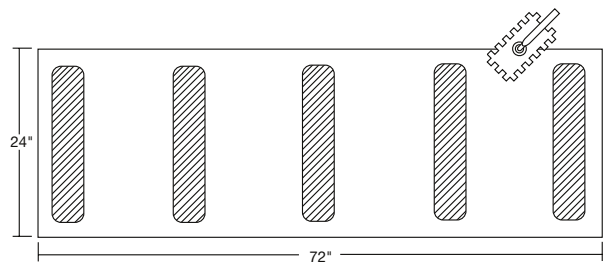
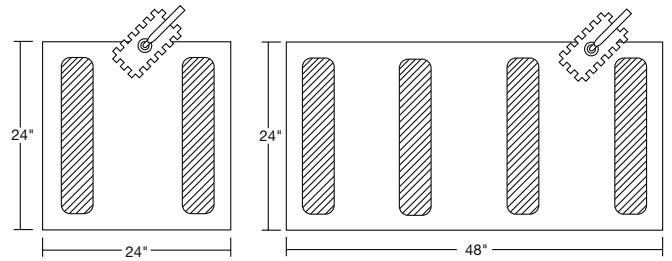
**NOTE:** The max distance between glue centerlines on any panel is 24". For panels whose edges may overhang, maximum allowable overhang is 7" from the centerline of your glue to the edge of the panel.

**4.3** Utilizing the trowel, ensure that the adhesive is uniformly spread to cover your specified area.

**4.4** Once in position, push the panel against the ceiling applying even hand pressure to the board where the adhesive is located in the center first, followed immediately by the edges of the panel. By attaching the center first, you can still pivot the panel slightly left or right before adhering the edges. This ensures that the panel can be aligned correctly first before the edges are solidified into place. Avoid excessive pressure to minimize panel flexing that will disturb the previously pressed areas of adhesive and result in release of the adhesive.

**4.5** Any slight adjustments to the panel placement should be done immediately to not weaken the adhesive bond once it has started to set. Once the panel is evenly pressed into position, the adhesive should provide an immediate bond to hold the panel in place while the adhesive sets.

**4.6** Press a sponge float across all areas of the panel where glue was applied to ensure all glue spots and lines are properly compressed and adhere to the deck. Lastly, measure adjacent panel edges to check levelness as panels are installed; the levelness of the finish face of adjacent panels should be within 1/8" to ensure a satisfactory visual.

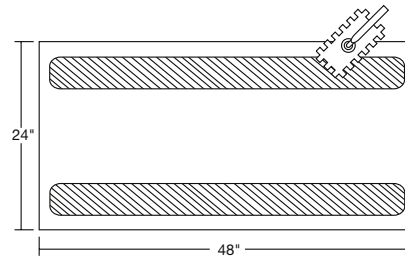
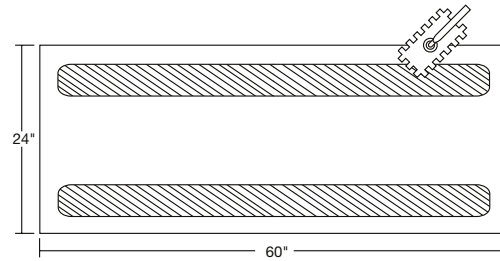
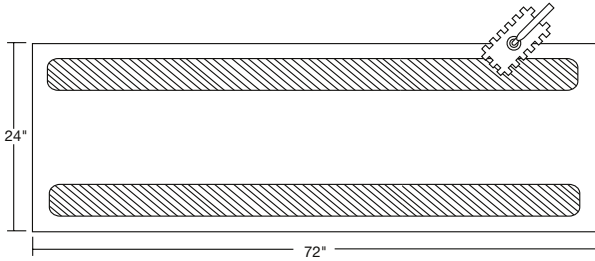


## OFFSET COMPENSATION

**4.7** A 1/4" to 3/8" gap should be left between panels on all sides when installed. Because the panels are 47-3/4" long and 23-3/4" wide, a 1/4" gap between them will allow glue lines to remain aligned with the contact patch of your deck.

**NOTE:** The pitch of your deck may have gaps due to overlapping corrugated metal. Check for these areas before installing your next panel and adjust your glue lines appropriately when necessary.

**4.8.** Glue lines can also be applied horizontally across the 24" x 48", 24" x 60", and 24" x 72" sized panels. Use this method when installing panels parallel to your deck corrugation length wise. Glue line outer edges should be 3" from the edge of the panel on all panel sides. All other formally mentioned constraints still apply.



**NOTE:** Images of panel glue lines do not represent exact positioning. Glue line placement is determined by the pitch of your deck as noted in Section 4.2.

Special Sizes Chart						
Panel Width	Panel Length (Number of Glue Lines Needed)					
	24" – 30-1/2"	30" – 42-1/2"	43" – 57-1/2"	58" – 71-1/2"	72" – 83-1/2"	84" – 96"
12" – 19-1/2"	2	3	4	5	6	7
20" – 24"	2	3	4	5	5	6
24-1/2" – 48"	2	3	4	4	N/A	N/A

## 5. LYRA® PB MADE-TO-ORDER SIZES

**5.1** In addition to standard sizes, made-to-order sizes for Lyra® PB Direct-Apply panels are available. Made-to-order sizes are applicable to drywall, concrete, plaster, and metal decks. Follow the chart below to determine how many glue lines are required for the made-to-order panel size.

**5.2** Instructions for all made-to-order sizes:

- The end of your glue line to the panel edge must be no greater than 2"
- The distance from the directional edge of your glue line to the panel edge should be no greater than 3"
- The distance between glue line edges can be 2" - 20"
- A minimum of 2 glue lines is required per panel
- Your glue lines must run parallel to the shortest panel edge
- For metal decks, at least 75% of the glue line must contact the deck flange

## MORE INFORMATION

For more information, or for an Armstrong Ceilings representative, call 1 877 276 7876.

For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine customer support at 1 877 276 7876 or FAX 1 800 572 TECH.

For the latest product selection and specification data, visit [armstrongceilings.com/directapply](http://armstrongceilings.com/directapply)

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