# Acoustical Infill Panels Assembly and Installation Instructions

# 1. GENERAL

These installation instructions will explain and show the recommended installation methods for acoustical infill panels with-in the ceiling systems that are listed below. We strongly recommend these instructions be used in conjunction with the installation instructions for the specific ceiling systems so all of the installation recommendations can be followed.

#### **1.1 Products**

MetalWorks<sup>™</sup> 3D 6.1 MetalWorks<sup>™</sup> Clip-on 6.2

- MetalWorks<sup>™</sup> Concealed 6.3
- MetalWorks<sup>™</sup> Linear 6.4
- MetalWorks<sup>™</sup> Mesh 6.5
- MetalWorks<sup>™</sup> Snap-in 6.6
- MetalWorks<sup>™</sup> Tegular 6.7
- MetalWorks<sup>™</sup> Tin 6.8
- MetalWorks<sup>™</sup> Torsion Spring 6.9
- MetalWorks<sup>™</sup> Vector 6.10
- WoodWorks® Channeled Plank 6.11
- WoodWorks® Channeled Tegular 6.12
- WoodWorks® Channeled Vector 6.13
- WoodWorks® Concealed 6.14
- WoodWorks® Grille 6.15
- WoodWorks® Grille Tegular 6.16
- WoodWorks® Linear Planks 6.17
- WoodWorks® Linear Solid Panels 6.18
- WoodWorks® Linear Veneered Panels 6.19
- WoodWorks® Open Cell 6.20
- WoodWorks® Tegular 6.21
- WoodWorks® Vector® 6.22

# **1.2 Infill Panel Types**

- 5479 BioAcoustic<sup>™</sup> Infill 24" x 24" Beige Matte
- 5823 BioAcoustic<sup>™</sup> Infill 24" x 24" Black Matte
- 6657 BioAcoustic<sup>™</sup> Infill 11" x 48" Black Matte
- 8200T10 Fiberglass Infill Panel 24" x 24" Black Gloss
- 1713 School Zone<sup>®</sup> Fine Fissured<sup>™</sup> Square Lay-in 24" x 24" White and Tech Black
- 1714 School Zone<sup>®</sup> Fine Fissured<sup>™</sup> Square Lay-in 24" x 48" White
- 2820 Calla® Square Lay-in 24" x 24" White and Black
- 2821 Calla® Square Lay-in 24" x 48" White

# **1.3 Storage and Handling**

The ceiling components 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, horizontal position. The protectors between panels should not be removed until installation. Proper care should be taken when handling to avoid damage and soiling. Do not store in unconditioned spaces with humidity greater than 55% or lower than 25% RH and temperatures lower than 50°F or greater than 86°F. Panels must not be exposed to extreme temperatures, for example, close to a heating source or near a window where there is direct sunlight.

# **1.4 Site Conditions**

WoodWorks® panels should be permitted to reach room temperature and have a stabilized moisture content for minimum of 72 hours before installation. (Remove plastic wrap to allow panels to acclimatize). They should not, however, be installed in spaces where the temperature or humidity conditions vary greatly from the temperatures and conditions that will be normal in the occupied space. Areas to receive ceilings shall be free of construction dust and debris. Panels should only be installed in closed and acclimatized buildings. Interior systems cannot be used in exterior applications where standing water is present or where moisture will come in direct contact with the ceiling.

# Inspiring Great Spaces®



# **1.5 General HVAC Design & Operation**

Proper design for both supply air and return air, maintenance of the HVAC filters and building interior space are essential to minimize soiling. Before starting the HVAC system, make sure supply air is properly filtered and the building interior is free of construction dust.

#### 1.6 Temperature and Humidity for WoodWorks® Installation

WoodWorks<sup>®</sup> panels are interior finish products designed for installation in temperature conditions between 50°F and 86°F, in spaces where the building is enclosed and HVAC systems are functioning and will be in continuous operation. Relative humidity shall not fall below 25% or exceed 55%. There shall be proper ventilation of the plenum in high moisture areas. All plastering, concrete, terrazzo, or any other wet work should be completely dry. All windows and doors should be in place. The heating, ventilating and air-conditioning system should be installed and operable where necessary to maintain proper temperature and humidity conditions before, during and after installation of the WoodWorks<sup>®</sup> panels.

#### **1.7 Cutting Instructions**

All of the mineral fiber and BioAcoustics<sup>™</sup> infill panels can be cut with a utility knife. A table saw can also be used for ease of reciprocating numerous cuts.

The fiberglass infill (8200T10) does not need to be cut and can simply be folded to fit areas smaller than the 2' x 2' size.

# 2. SUSPENSION SYSTEMS

Suspension systems, whether 9/16" or 15/16", shall be installed to meet the minimum requirements established in the ASTM C636 standard and any other requirements established by local code.

The requirements listed below or in product specific installation instructions for each system represent the manufacturer's minimum acceptable installation recommendations, and may be subject to additional requirements established by the local authority having jurisdiction.

#### 3. INSTALLATION

The installation recommendations listed below outline the installation of acoustical infill panels within the listed specialty ceiling systems. The product specific installation instructions should be referenced for each product type in conjunction with these installation recommendations. For example, reference installation instructions for MetalWorks<sup>™</sup> Tegular (BPLA-295519) along with these installation recommendations when installing acoustical infill panels within a MetalWorks<sup>™</sup> Tegular installation.

#### 4. CUTTING INFILL PANEL FOR PENETRATIONS AND BORDER

Refer to the following when cutting the interior of infill panels for penetrations, cutouts, etc. (sprinklers/lighting). Always wear safety glasses and gloves when cutting panels.

# **5. SEISMIC RESTRAINT**

WoodWorks<sup>®</sup> and MetalWorks<sup>™</sup> products have been engineered for application in seismic areas. These systems have been successfully tested in applications simulating Seismic Design Categories D, E, and F. Include a disclaimer around challenges of seismic installation with infill panels.

# 6. INFILL PANEL INSTALLATION

# 6.1 Infill Panel Installation for MetalWorks<sup>™</sup> 3D (Total Acoustics)

Calla® (T.A.), School Zone® Fine Fissured<sup>™</sup> (T.A.), BioAcoustic, and Fiberglass panels

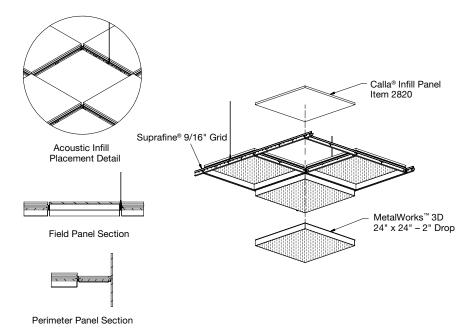
# Full size panels:

2820, 1713, 5479 and 8200T10 – No cutting required. Place acoustic infill within grid opening, resting on the horizontal flanges of the tegular panels.

# Cut panels (including borders):

2820, 1713 and 5479 - Infill panels must be cut to size and will rest on the horizontal flanges of the tegular panels.

8200T10 – No cutting required. Infill can be folded to fit over cut border panels.



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# 6.2 Infill Panel Installation for MetalWorks<sup>™</sup> Clip-on

BioAcoustic<sup>™</sup> and Fiberglass panels

# Full size panels:

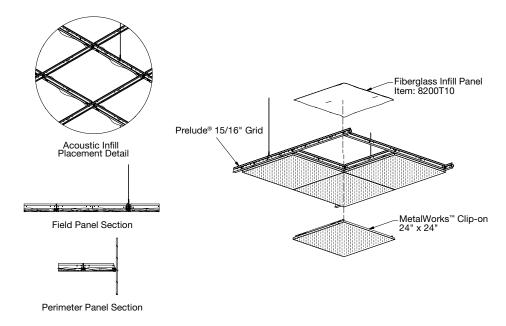
5479 - No cutting required. Place acoustic infill panel within grid opening, resting on top of the panel upturns.

8200T10 - No cutting required. Place the infill on the back side of the face of the panels.

# Cut panels (including borders):

5479 – Infill panels must be cut to size and will rest on panel upturns and the top flange of the box molding.

8200T10 - No cutting required. Infill can be folded to fit over cut border panels.



# 6.3 Infill Panel Installation for MetalWorks<sup>™</sup> Concealed

BioAcoustic<sup>™</sup> and Fiberglass panels

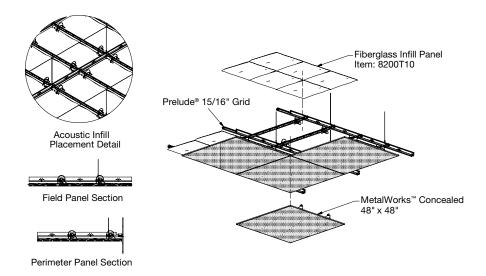
# Full size panels:

5479 and 8200T10 – No cutting required. Place 2' x 2' infill panels directly on the Concealed panels between the T-bar Hooks. Note: T-bar Hooks are always attached to Concealed panel at 2' OC increments.

# Cut panels (including borders):

5479 - Infill panels must be cut to size and will rest directly on the panel.

8200T10 - No cutting required. Infill can be folded to fit over cut border panels.



# 6.4 Infill Panel Installation for MetalWorks<sup>™</sup> Linear

BioAcoustic<sup>™</sup> and Fiberglass panels

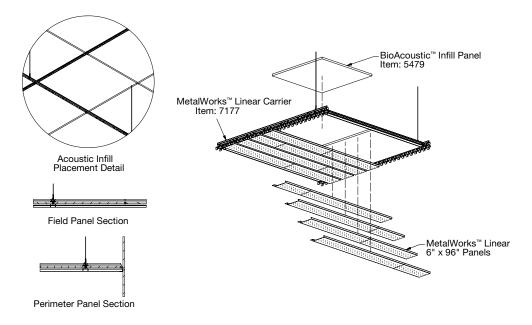
# Full size panels:

5479 and 8200T10 – No cutting required. Place 4 infill panels to fit inside each 4' x 4' grid module. Infill panels will rest on the grid flanges and the back of the linear planks.

# Cut panels (including borders):

5479 - Infill panels must be cut to size along the borders and will rest on the grid flange and the back of the linear planks.

8200T10 - No cutting required. Infill can be folded to fit over cut border planks.



# 6.5 Infill Panel Installation for MetalWorks<sup>™</sup> Mesh<sup>™</sup> (TA)

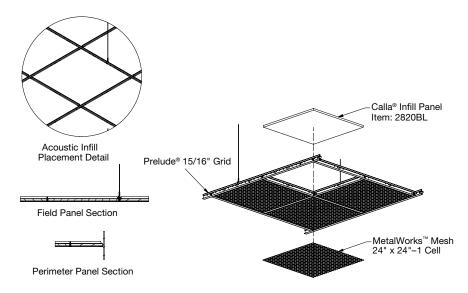
Calla® (T.A.), School Zone® Fine Fissured<sup>™</sup> (T.A.), BioAcoustic<sup>™</sup>, and Fiberglass panels

# Full size panels:

5823 and 2820BK – No cutting required. Place acoustic infill panels within grid opening, resting on top of the Mesh panels.

# Cut panels (including borders):

5823 and 2820BK - Infill panels must be cut to size and will rest on top of the border panels.



# 6.6 Infill Panel Installation for MetalWorks<sup>™</sup> Snap-in

BioAcoustic<sup>™</sup> and Fiberglass panels

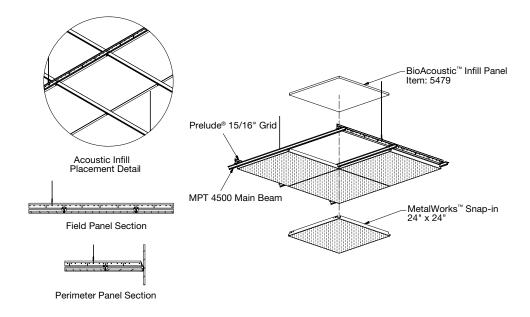
# Full size panels:

5479 – Cutting may be required depending on panel size. Place acoustic infill on the back side of the face of the panels, within the panel upturns.

8200T10 - No cutting required. Place infill on the back side of the face of the panel, within the panel upturns.

# Cut panels (including borders):

5479 – Infill panels must be cut to size and will rest inside of the Snap-in panel upturns (on the back side of the face of the panel). 8200T10 – No cutting required. Infill can be folded to fit inside of border panels.



# 6.7 Infill Panel Installation for MetalWorks™ Tegular (TA)

Calla® (T.A.), School Zone® Fine Fissured<sup>™</sup> (T.A.), BioAcoustic<sup>™</sup>, and Fiberglass panels

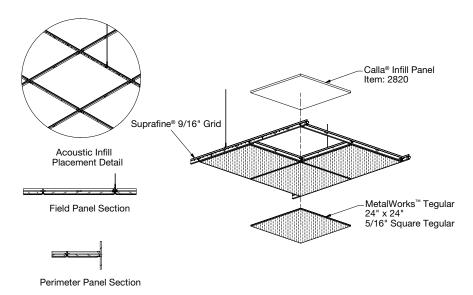
# Full size panels:

2820, 1713, 5479 and 8200T10 – No cutting required. Place acoustic infill within grid opening, resting on the horizontal flanges of the tegular panels.

# Cut panels (including borders):

2820, 1713 and 5479 - Infill panels must be cut to size and will rest on the horizontal flanges of the tegular panels.

8200T10 - No cutting required. Infill can be folded to fit over cut border panels.



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# 6.8 Infill Panel Installation for MetalWorks<sup>™</sup> Tin (TA)

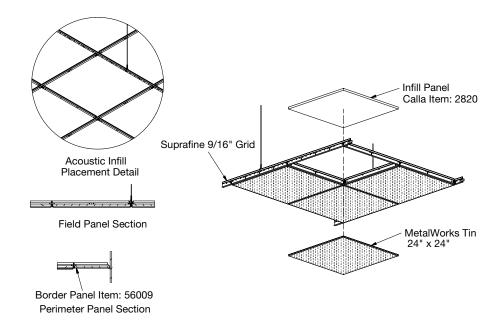
Calla<sup>®</sup> (T.A.), School Zone<sup>®</sup> Fine Fissured<sup>™</sup> (T.A.), BioAcoustic<sup>™</sup>, and Fiberglass panels

#### Full size panels:

2820, 1713, 5479 and 8200T10 – No cutting required. Place acoustic infill panels within grid opening, resting on the horizontal flanges of the panels.

# Cut panels (including borders):

2820, 1713 and 5749 – Infill panels must be cut to size and will rest on the back of the 56009 "nubby" border panels 8200T10 – No cutting required. Infill can be folded to fit over cut border panels.



# 6.9 Infill Panel Installation for MetalWorks<sup>™</sup> Torsion Spring

BioAcoustic<sup>™</sup> and Fiberglass panels

#### Full size panels:

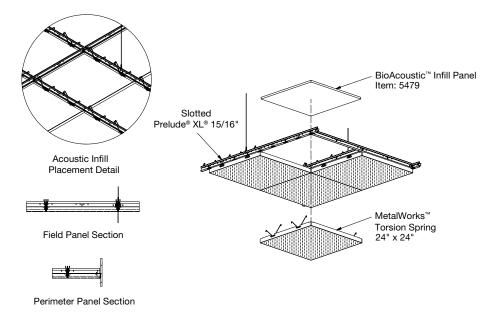
5479 – Infill panels must be cut to fit between of the spring brackets inside of the panel. Place acoustic infill on the back side of the face of the panels, within the panel upturns.

8200T10 - No cutting required. Place infill on the back side of the face of the panel, within the panel upturns.

# Cut panels (including borders):

5479 - Infill panels must be cut to size and will rest inside of the panel upturns (on the back side of the face of the panel).

8200T10 - No cutting required. Infill can be folded to fit inside of border panels.



# 6.10 Infill Panel Installation for MetalWorks<sup>™</sup> Vector<sup>®</sup>

BioAcoustic<sup>™</sup> and Fiberglass panels

# Full size panels:

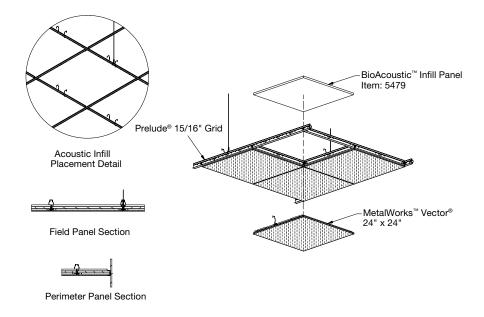
5479 - No cutting required. Place acoustic infill panel within grid opening, resting on top of the panel upturns.

8200T10 - No cutting required. Place the infill on the back side of the face of the panels.

# Cut panels (including borders):

5479 - Infill panels must be cut to size and will rest on panel upturns.

8200T10 – No cutting required. Infill can be folded to fit over cut border panels.



# 6.11 Infill Panel Installation for WoodWorks® Channeled Plank

BioAcoustic<sup>™</sup> and Fiberglass panels

#### Full size panels:

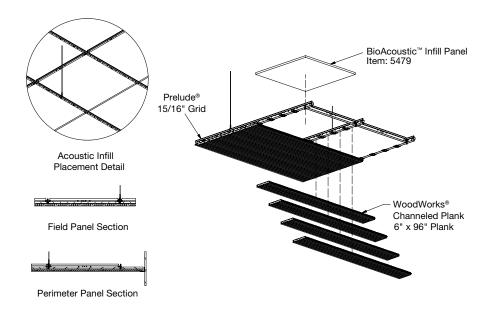
5479 – No cutting required. Place acoustic infill within grid opening, resting on the back of the WW panels.

8200T10 - No cutting required. Place acoustic infill panels within grid opening, resting on the back of the panels

# Cut panels (including borders):

5479 - Infill panels must be cut to size and will rest on the back of the panels.

8200T10 - No cutting required. Infill can be folded to fit over cut border panels.



# 6.12 Infill Panel Installation for WoodWorks® Channeled Tegular (TA)

Calla® (T.A.), School Zone® Fine Fissured™ (T.A.), BioAcoustic™, and Fiberglass panels

# Full size panels:

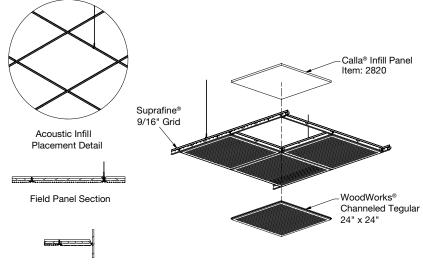
2820, 1713 and 5479 – No cutting required. Place acoustic infill within grid opening, resting on the back of the WoodWorks panels.

8200T10 - No cutting required. Place acoustic infill panels within grid opening, resting on the back of the panels

# Cut panels (including borders):

2820, 1713 and 5479 – Infill panels must be cut to size and will rest on the back of the panels.

8200T10 - No cutting required. Infill can be folded to fit over cut border panels.



Perimeter Panel Section

# 6.13 Infill Panel Installation for WoodWorks® Channeled Vector®

BioAcoustic<sup>™</sup> and Fiberglass panels

# Full size panels:

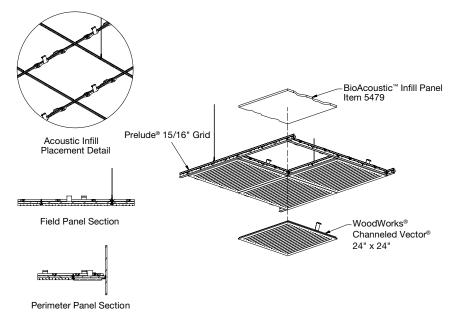
5823 – Infill panels must be cut to fit between the safety clips on the back of the WoodWorks panel. The infill panel needs to be cut to a width of 22.25" to fit between the safety clips and the length will remain the factory finished dimension. Place acoustic infill on the back of the WoodWorks panels, covering the area between the safety clips.

8200T10 - No cutting required. Place infill on the back of the WoodWorks panels, partially resting on the safety clips.

# Cut panels (including borders):

5823 - Infill panels must be cut to size and will rest on the back of the WoodWorks panels, between the safety clips.

8200T10 - No cutting required. Infill can be folded to fit over cut border panels.



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# 6.14 Infill Panel Installation for WoodWorks® Concealed

BioAcoustic<sup>™</sup> panels in Black and Fiberglass panels

# Full size panels:

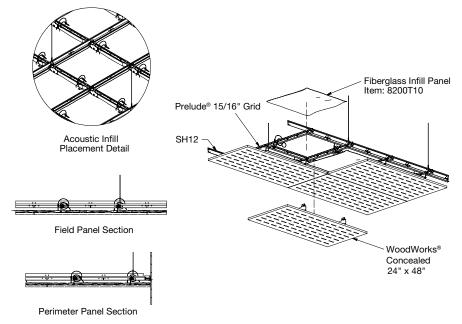
5823 and 8200T10 - No cutting required. Place 2' x 2' infill panels directly on the Concealed panels between the T-bar Hooks.

Note: T-bar Hooks are always attached to Concealed panels at 2' OC increments..

# Cut panels (including borders):

5823 - Infill panels must be cut to size and will rest directly on the back of the panel.

8200T10 – No cutting required. Infill can be folded to fit over cut border panels.



# 6.15 Infill Panel Installation for WoodWorks® Grille

BioAcoustic<sup>™</sup> panels in Black

# Full size panels:

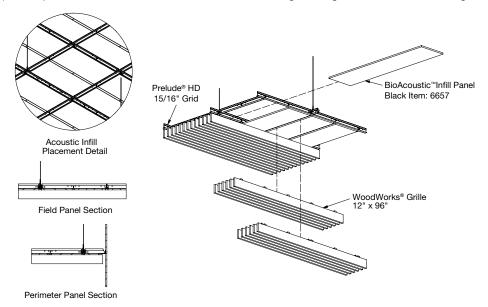
6657 (for backer only and backer/dowel combination) – If the grill panel has backers then item 6657 (11" x 48") can be used. This item can be placed on the back of the grille panels, between the backers. Infills will have to be cut into 5" strips to fit between the outside pair of backers that are spaced at 6" OC.

5823 (for dowel only) – Dowel only panels install with the slats up tight against the grid so 5823 (2' x 2') infill panels must lay inside of the 2' x 2' grid modules. These will rest on the grid flanges but may be pushed slightly up by the dowel clips.

# Cut panels (including borders):

6657 (for backer only and backer/dowel combination) – Infill panels must be cut to size and will rest on the back of the grille panels, between the backers.

5823 (for dowel only) – Infill panels must be cut to size and will rest on the grid flanges and the back of the grille panels.



# 6.16 Infill Panel Installation for WoodWorks® Grille Tegular

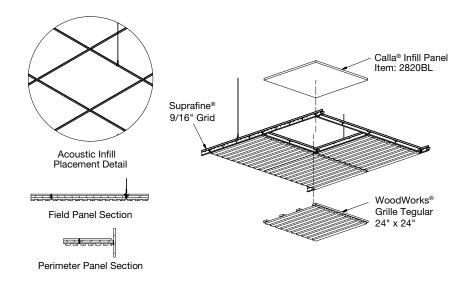
Calla<sup>®</sup> (T.A.), School Zone<sup>®</sup> Fine Fissured<sup>™</sup> (T.A.), BioAcoustic<sup>™</sup>, and Fiberglass panels

#### Full size panels:

2820BK, 1713BL and 5823 – No cutting required. Place acoustic infill within grid opening, resting on the backers of the wood panels.

# Cut panels (including borders):

2820BK, 1713BL and 5823 - Infill panels must be cut to size and will rest on the backers of the wood panels.



# 6.17 Infill Panel Installation for WoodWorks® Linear Planks

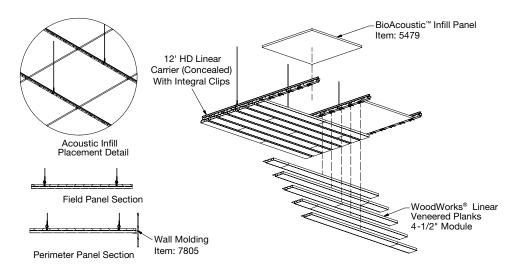
BioAcoustic<sup>™</sup> and Fiberglass panels

#### Full size panels:

5479 and 8200T10 – No cutting required. Place infill panels between the linear carriers which are installed at 2' OC. Infill panels will rest on the grid flanges and the back of the WoodWorks planks.

#### Cut panels (including borders):

5479 – Infill panels must be cut to size along the borders and will rest on the grid flange and the back of the WoodWorks planks. 8200T10 – No cutting required. Infill can be folded to fit over cut border planks.



# 6.18 Infill Panel Installation for WoodWorks® Linear Solid

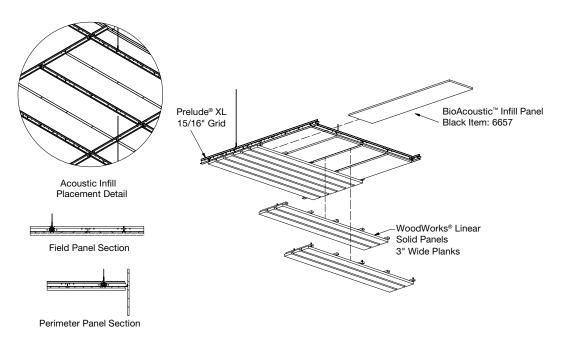
BioAcoustic<sup>™</sup> panels in Black

# Full size panels:

6657 - Place 11" x 48" infill panels on the back of the panels, between the backers.

# Cut panels (including borders):

6657 - Infill panels must be cut to size and will rest on the back of the panels, between the backers.



# 6.19 Infill Panel Installation for WoodWorks® Linear Veneered

BioAcoustic<sup>™</sup> panels in Black and Fiberglass panels

# Full size panels:

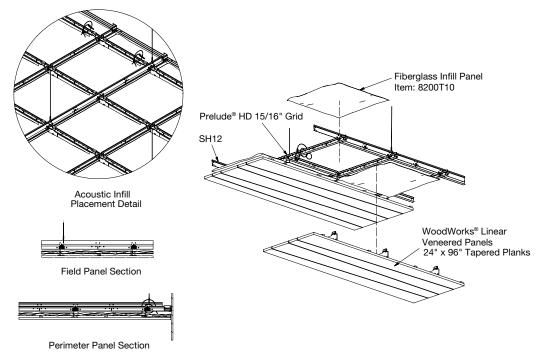
5823 and 8200T10 - No cutting required. Place 2' x 2' infill panels directly on the panels between the T-bar Hooks.

Note: T-bar Hooks are always attached to panels at 2' OC increments.

# Cut panels (including borders):

5823 - Infill panels must be cut to size and will rest directly on the back of the panel.

8200T10 - No cutting required. Infill can be folded to fit over cut border panels.

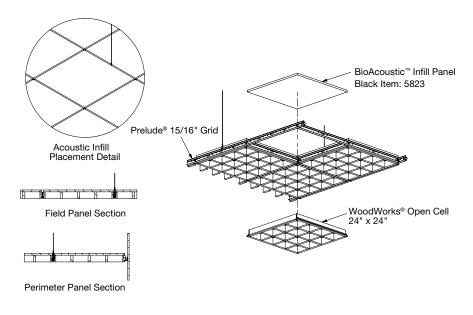


# 6.20 Infill Panel Installation for WoodWorks® Open Cell

BioAcoustic<sup>™</sup> panels in Black

#### Full size panels:

5823 - No cutting required. Place acoustic infill on top of the WoodWorks panel.



# 6.21 Infill Panel Installation for WoodWorks® Tegular (Total Acoustics)

Calla® (T.A.), School Zone® Fine Fissured™ (T.A.), BioAcoustic™, and Fiberglass panels

# Full size panels:

2820BK, 1713BL and 5823 – No cutting required for panels under 8 sq. ft. Place acoustic infill within grid opening, resting on the back of the tegular panels.

Note: panels over 8 sq. ft. require drywall grid attached to the back for safety cable attachment. Acoustic infill will have to be cut to fit around this grid.

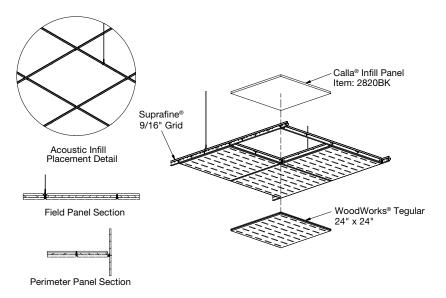
8200T10 - No cutting required. Place acoustic infill panels within grid opening, resting on the back of the panels.

Note: Infill can be folded to fit around drywall grid for panels 8 sq. ft. or greater.

# Cut panels (including borders):

2820BK, 1713BL and 5823 - Infill panels must be cut to size and will rest on the back of the panels.

8200T10 – No cutting required. Infill can be folded to fit over cut border panels.



#### 6.22 Infill Panel Installation for WoodWorks® Vector®

BioAcoustic<sup>™</sup> panels in Black and Fiberglass panels

#### Full size panels:

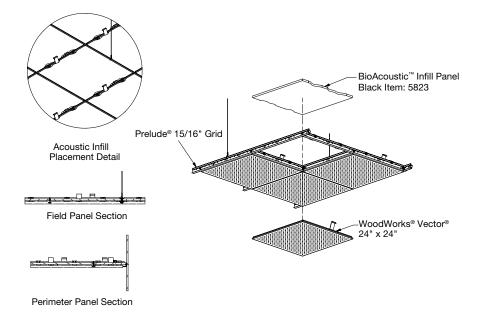
5823 – Infill panels must be cut to fit between the safety clips on the back of the WoodWorks panel. The infill panel needs to be cut to a width of 22.25" to fit between the safety clips and the length will remain the factory finished dimension. Place acoustic infill on the back of the WW panels, covering the area between the safety clips.

8200T10 - No cutting required. Place infill on the back of the WoodWorks panels, partially resting on the safety clips.

#### Cut panels (including borders):

5823 – Infill panels must be cut to size and will rest on the back of the WoodWorks panels, between the safety clips.

8200T10 - No cutting required. Infill can be folded to fit over cut border panels.



#### **MORE INFORMATION**

For more information, or for an Armstrong Ceilings representative, call 1 877 ARMSTRONG. For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine customer support at 1 877 ARMSTRONG or FAX 1 800 572 TECH. For the latest product selection and specification data, visit armstrongceilings.com/commercial

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