

Laminex®

# Architectural Ceiling Panels and Tiles

## Installation Guide



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Australian  
manufacturer

# Contents

<b>Section 1: Introduction</b>	<b>4</b>
1.1 Purpose of this guide	4
<b>Section 2: Product Information</b>	<b>5</b>
<b>Section 3: General information</b>	<b>7</b>
3.1 Safety	7
3.1.0.1 Safety data sheet	
3.1.1 Personal Protective Equipment	
3.1.2 Tools and equipment	
3.2 Handling	8
3.3 Storage	9
3.4 Packaging	10
3.5 Transport and movement	10
3.6 Conditioning	11
3.7 Quality control	11
3.7.1 Inspection	
3.7.2 Technical data	
3.8 Care and maintenance	12
3.9 Warranty	12
<b>Section 4: Applications</b>	<b>13</b>
4.1 Interior and Exterior Application	13
4.2 Ceiling Space Considerations	13
4.3 Architectural Ceiling Panels and Tiles Fire Requirements	14
4.4 Structural Engineering	15
<b>Section 5: Design Guidelines</b>	<b>18</b>
5.1 Types of Ceiling Systems	19
5.2 Design Options — Tiles	19
5.3 Design Options — Panels	20
<b>Section 6: Fabrication</b>	<b>21</b>
6.1 Tools and Equipment	21
6.2 Workplace	21
6.3 Cutting	22
6.4 Edge Sealing and Gap Sealant	22

<b>Section 7: Architectural Ceiling Tiles</b>	<b>23</b>
7.1 Fixing	23
7.2 Architectural Ceiling Tile Installation – Drop-in Tile Grid Suspended Systems	23
7.2.1 Preparation	
7.2.2 Drop-In Tile Grid Suspended System	
7.2.3 Installing Architectural Ceiling Tiles	
<b>Section 8: Architectural Ceiling Panels</b>	<b>26</b>
8.1 Fixing	26
8.1.1 Fasteners	
8.2 Architectural Ceiling Panel Installation – Direct fix to battens/furring channels	27
8.2.1 Preparation	
8.2.2 Express Joint	
8.2.3 Installing furring channel/batten system	
8.2.4 Installing Architectural Ceiling Panels	
8.3 Architectural Panel Installation – Direct fix to suspended system	30
8.3.1 Preparation	
8.3.2 Installing Direct Fix Suspended System	
8.3.3 Installing Architectural Ceiling Panels	
<b>Section 9: Routine Maintenance</b>	<b>33</b>
<b>Section 10: Ceiling terms</b>	<b>34</b>



# Section 1: Introduction

## 1.1 Purpose of this guide

This guide has been created to provide clear instructions to successfully design and install the Architectural Ceiling Panels or Tiles. Adherence to the techniques and guidelines presented in this guide will ensure the finished article is compliant with the conditions of the product warranty.

Throughout this guide, the **(W)** symbol will appear against any specific instructions that are linked to compliance with the Laminex Architectural Ceiling Panels and Tiles warranty.

It is important to note that the techniques and guidelines presented in this guide are those required for use with Architectural Ceiling Panels and Tiles. Any variation from these guidelines may create unexpected performance problems and may void the warranty.

This guide provides instructions to comply with the product warranty to determine the suitability of this product for your particular project.

While every precaution has been taken in the preparation of this document, Laminex assumes no responsibility for errors, omissions, or damages resulting from the use of information contained in this document. In no event will Laminex be liable for any loss of profit or any other loss or damage caused or alleged to have been caused directly or indirectly as a result of any person relying upon any information contained in this document.

Content in this guide is subject to change at any time without notice. Refer to Laminex Architectural Panels and Tiles at [laminex.com.au](http://laminex.com.au) for the latest revision of this document.

Architectural Ceiling Panels or Tiles should be installed with consideration to the Australian Construction Code – Building Code of Australia, Volume 1 and 2, and the relevant Australian Standards.

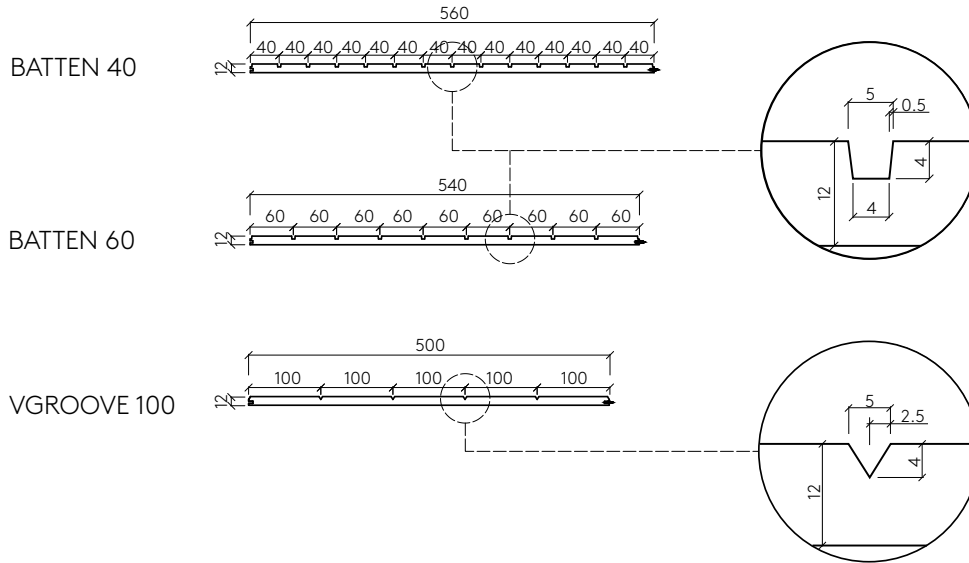
# Section 2: Product Information

Laminex Architectural Ceiling Panels and Tiles offer MDF MR FR E1 panels in a range of architectural decors and 3 profiles.

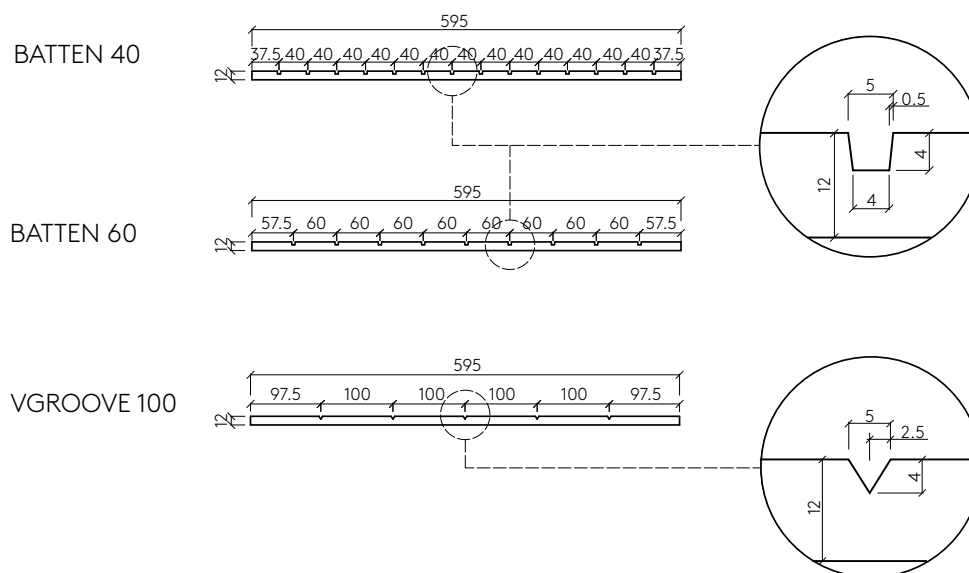
PRODUCT	ATTACHMENT OPTIONS	JOINT	PROFILE	THICKNESS	WIDTH	LENGTH
<b>Architectural Ceiling Tile</b>	Retrofit Grid System (Drop in tile) New Ceiling System (Drop in tile)	Square Edge	Batten 40	12mm	595mm	1195mm
			Batten 60	12mm	595mm	1195mm
			Vgroove 100	12mm	595mm	1195mm
<b>Architectural Ceiling Panel</b>	Direct fix ceiling Suspended Ceiling	Tongue & Groove: Seamless joint, Narrow Joint, Wide Joint	Batten 40	12mm	560mm	2400mm
			Batten 60	12mm	540mm	2400mm
			Vgroove 100	12mm	500mm	2400mm



Panels (12mm)



Tiles (12mm)



# Section 3: General information

## 3.1 Safety

Safety training, product knowledge, and product use are the responsibility of the installation facility and its employees.

Equipment selection, use, and maintenance are the responsibility of the installation facility and its employees.

Maintaining a clean and adequately ventilated workplace is the responsibility of the fabrication and/or installation facility and its employees.

### 3.1.0.1 Safety data sheet

Refer to [laminex.com.au](http://laminex.com.au) for the latest version of the Safety Data Sheet (SDS) for this product.

### 3.1.1 Personal Protective Equipment

Always wear appropriate PPE when handling, cutting, or installing this product. Wear gloves, safety footwear, and suitable workwear apparel (no loose clothing or jewellery).



Gloves



Workwear



Boots

Always use safety glasses or approved eye protection and/or face shields when cutting, routing, sanding or when working in close proximity to the ceiling.



Safety Glasses

Occupational exposure to any type of dust is known to be hazardous to human health. Care must be taken to avoid the inhalation of dust. Follow good hygiene and workplace practices. Dust can be vacuumed or swept to avoid accumulation. Dust masks must be worn in accordance with your State's WorkSafe (or equivalent) guidelines.



Dust Mask



If you intend to replace existing ceiling panels/tiles with Architectural Ceiling Panels or Tiles:

- Ensure that the existing ceiling panels or tiles do not contain Asbestos. Consult and obtain professional guidance from a licenced Asbestos removal service if required.
- If you are removing ceiling panels or tiles ensure your safety in relation to the fixtures above the ceiling panel or tiles.
- Clear the area beneath the ceiling to provide space for working and to prevent damage to fixings and fittings. Ensure all working from height devices or platforms meet the safe height standards according to Worksafe Australia or equivalent state safety body.

### 3.1.2 Tools and equipment

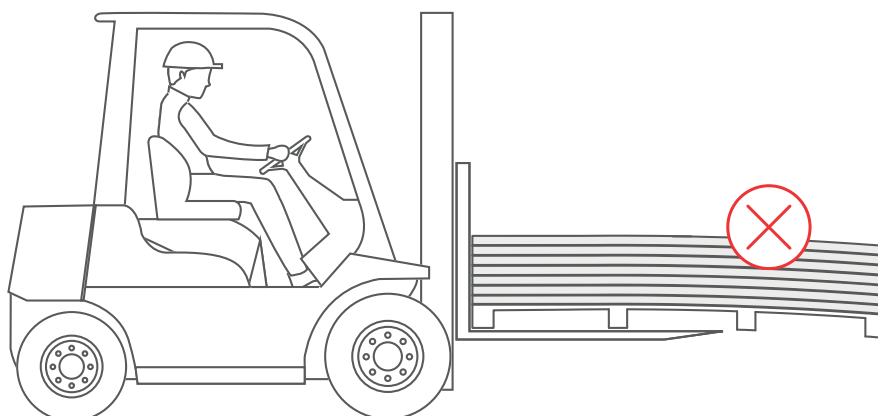
Use and maintain all tools and equipment in accordance with the manufacturer's instructions.

Keep all equipment safety guards and dust collection devices in place.

## 3.2 Handling

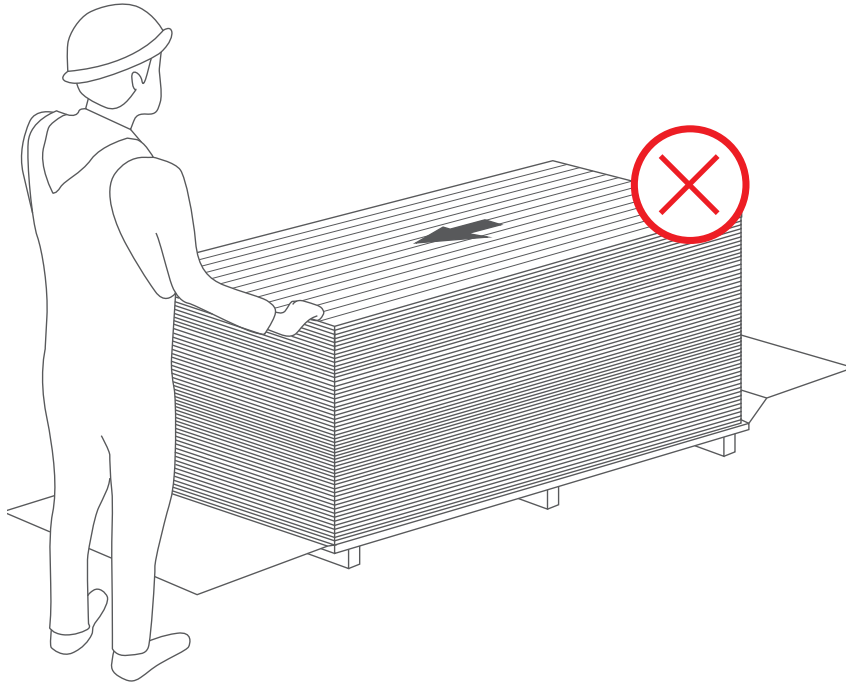
Architectural Ceiling Panels and Tiles have a weight of 9.8 kg/m<sup>2</sup>. Individual panel weights are approx 13 kg each, and tile weights are approx 7 kg each. It's important to handle the panels with care during lifting. Whenever possible, carry full panels vertically to minimise flexing or the risk of breakage. Additionally, ensure that panels are lifted from the non-routed face to prevent damage.

- Ⓜ If moving or transporting panels via forklift or suction lift, move panels carefully to avoid damage and ensure the right fork length is used for the panel size. Do not overload the forklift.





- Ⓜ | **DO NOT** slide panels over one another to move them.



- Ⓜ | Always lift with care and place the panels to avoid damage to the decorative surface.

### 3.3 Storage

- Ⓜ | When working with loose panels, where the original packaging is removed, the panels must be stored horizontally in a flat level fully supported manner. Place a protective cover over the unused panels.
- Ⓜ | Packs must be stored on a level horizontal surface and aligned with each other.
- Ⓜ | Material must be stored in a dry, fully enclosed area away from exterior doors. Do not leave the Architectural Ceiling Panels and Tiles in weather-exposed environments and protect from UV light.
- Ⓜ | **DO NOT** store Architectural Ceiling Panels and Tiles within areas where newly poured concrete or wet plastering is present.
- Ⓜ | When working from a pack of Architectural Ceiling Panels and Tiles, use panels as required and place a protective cover over the unused panels.
- Ⓜ | Do not store product on pallets with bearer spacings more than 600mm apart.



- Ⓜ | Panels must be stored with decorated surfaces facing each other or back to back.
- Ⓜ | Do not stack different-sized packs on top of each other.

### 3.4 Packaging

Suitable storage is essential for controlling and maintaining equilibrium moisture content (EMC). An imbalance of moisture will result in bowing or warping of the material.

#### Architectural Ceiling Tiles:

- Bulk packaging: 40 panels
- Customer packaging: 5 panels

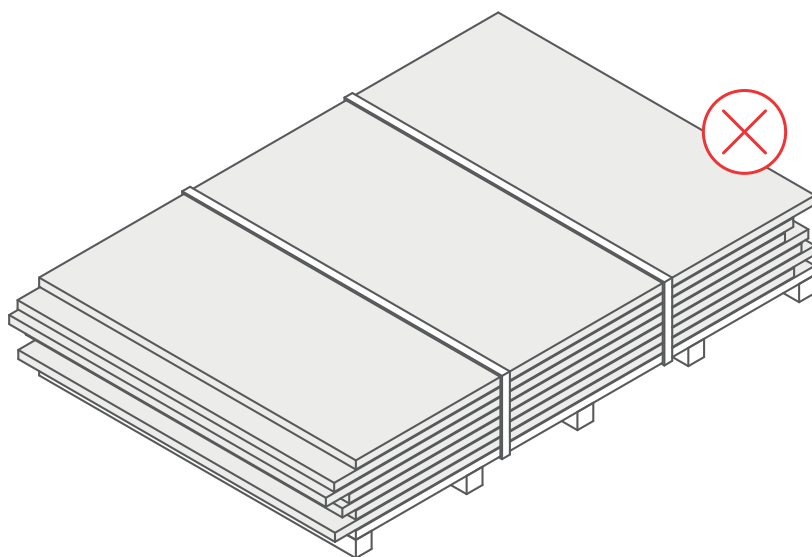
#### Architectural Ceiling Panels:

- Bulk packaging: 40 panels
- Customer packaging: 2 panels

### 3.5 Transport and movement

It is important to take precautions when transporting Laminex Architectural Ceiling Panels and Tiles. Ensure product surfaces and edges are protected when transporting, storing, fabricating, and installing panels.

**DO NOT** replace Architectural Panels packaging with other packaging components during transportation.



All straps and restraint devices must remain grit and burr free and suitably tensioned to prevent movement of the product during transport. Covered loads are recommended to prevent damage during transport to the site.

- Ⓜ | Claims for damage or surface abrasion due to unsuitable transport methods will not be recognised.
- Ⓜ | During transportation, use flat, stable supports of at least the same dimensions as the material.

### 3.6 Conditioning

Pre-conditioning of Architectural Ceiling Panels and Tiles is required to achieve equilibrium moisture content (EMC) before fixing, to reduce the likelihood of bowing or shrinkage after installation.

Architectural Ceiling Panels and Tiles must be stored for a minimum period of 48 hours at the same environmental conditions as the subsequent place of use, preferably in the room where the panels are to be installed.

Failure to condition material may result in product expansion and contraction in response to environmental conditions, particularly with changes in temperature and humidity. This may result in but is not limited to, bowing or warping of panels, joint failure or build-up of internal stresses that release in the form of cracks.

Architectural Ceiling Panels and Tiles must be installed in locations where environmental conditions can be controlled and maintained in a manner that avoids large fluctuations in temperature and humidity.

- Ⓜ | Failure to adhere to conditioning guidelines will void your warranty.
- Ⓜ | Failure to maintain and control the temperature and humidity of installation environments will void your warranty.

Timber structures to which Laminex Architectural Ceiling Panels and Tiles are fixed will also respond to changes in the humidity and temperature of the surrounding environment. Hence, temperature and humidity must be effectively controlled to minimise fluctuations in moisture content. Inadequate control of these parameters may result in the expansion or contraction of the timber structure.

### 3.7 Quality control

#### 3.7.1 Inspection

**ALL** panels or tiles must be visually inspected prior to the commencement of **ANY** cutting or fabrication.

Before commencing any cutting or fabrication, the following must be checked:

- Correct items (thickness, profile design, colour and size, etc)
- Consistent profiled design (ensure panels or tiles for the same installation are inspected for profiled design compatibility)



- Inspect for defects, such as: chips, scratches, evidence of transport damage, general quality of the surface finish and quality of the edge.
- Inspect the panel joints/joining profile and ensure they are not damaged

If products are believed to be defective, record all order details, photograph the condition, and contact your Laminex representative as soon as possible.

Ⓜ | Once cut or fabricated, no claims for visual defects will be recognised.

### **3.7.2 Technical data**

Refer to [laminex.com.au](http://laminex.com.au) for the latest version of the Technical Data Sheet (TDS) for this product.

### **3.8 Care and maintenance**

Refer to [laminex.com.au](http://laminex.com.au) for the latest version of the Care and Maintenance for Architectural Ceiling Panels and tiles.

### **3.9 Warranty**

Architectural Ceiling Panels and Tiles are covered by a 10-year limited warranty.

Refer to [laminex.com.au](http://laminex.com.au) for the latest version of the warranty for this product.

# Section 4: Applications

## 4.1 Interior and Exterior Application

- Ⓜ Architectural Ceiling Panels and Tiles are **ONLY** suitable for interior ceiling applications.
- Ⓜ Architectural Ceiling Panels and Tiles are **NOT** suitable for any floor applications.
- Ⓜ If the Architectural Ceiling Panels and Tiles are used above, or adjacent to, a fireplace or any fuel-burning or heat-emitting appliances, then setback standard will apply.
- Ⓜ Architectural Ceiling Panels and Tiles are **NOT** suitable for use in any exterior applications such as Alfresco/outdoors.
- Ⓜ Architectural Ceiling Panels and Tiles are **NOT** suitable for any sauna application.
- Ⓜ Architectural Ceiling Panels and Tiles are **NOT** suitable above steam-generating environment.

## 4.2 Ceiling Space Considerations

This is not a trafficable product, considerations for plant, equipment, and services that may be included inside the ceiling space are as follows, but are not limited to:

- Cabling/Electrical/Lighting
- Plumbing
- Gas/medical gases
- Insulation
- HVAC
- Security/Monitoring
- Fire detection/alarm/suppression
- Audio/emergency/entertainment
- Ladder tray
- Pest control
- Structural/load fixings

- Ⓜ Architectural Ceiling Panels and Tiles are not designed to carry structural loads and can not be used as a structural product.



### 4.3 Architectural Ceiling Panels and Tiles Fire Requirements

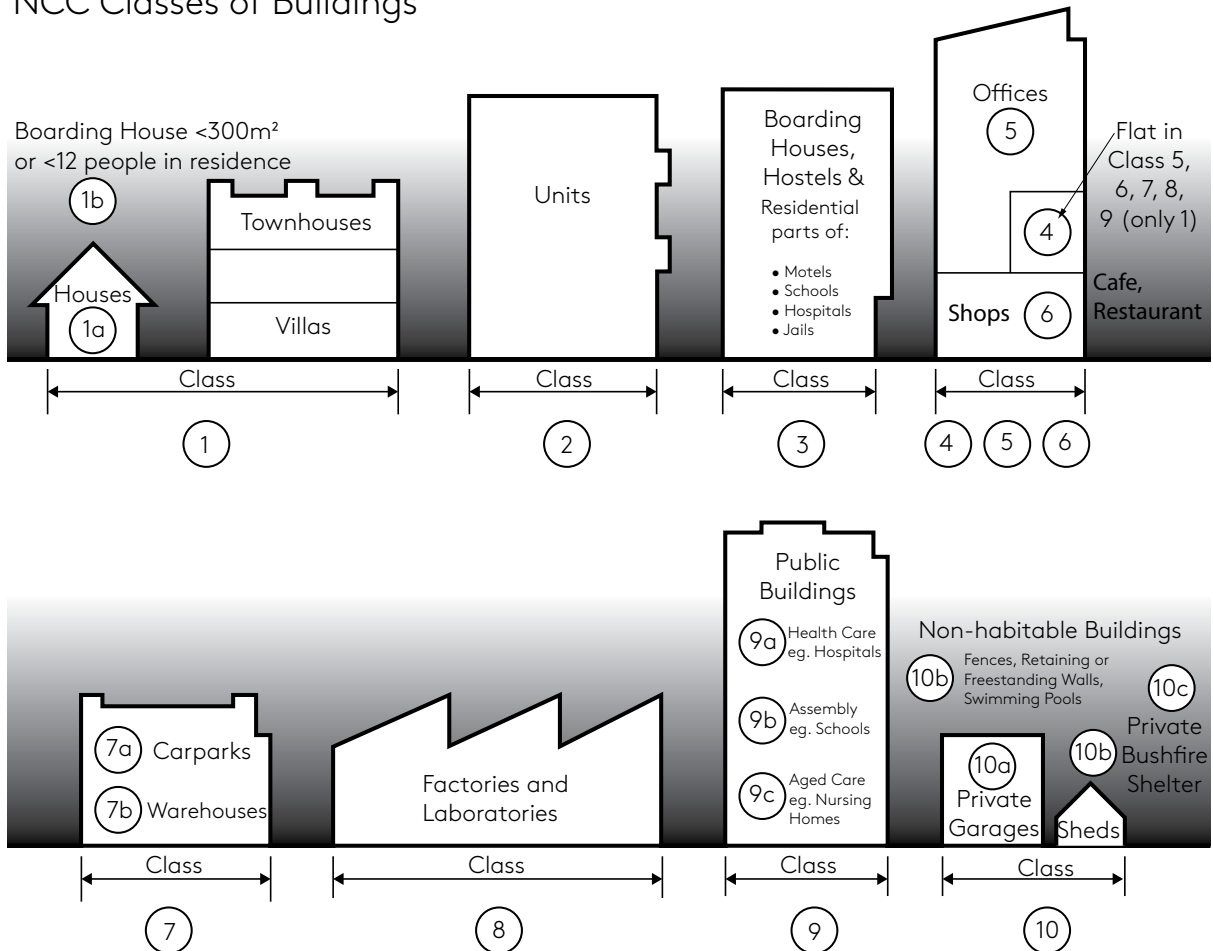
Architecture Ceiling Panels and Tiles have a fire group rating 2 tested to AS/ISO 9705 in accordance to AS 5637.1:2015.

Please take note of the following information regarding the fire requirements for Architectural Ceiling Materials:

This material is not suitable for use in:

- Fire-isolated exits and fire control rooms
- Unsprinklered areas such as:
  - Class 3 or 9a buildings (accommodation for the aged, people with disabilities, children, and health care buildings)
  - Unsprinklered Class 9b buildings other than schools

#### NCC Classes of Buildings



Please check with your fire engineer or certified authority for determination of classes of building and suitability.

## 4.4 Structural Engineering

Architectural Ceiling Panels and Tiles are only for interior applications. However, even internal ceilings are subject to reduced external wind pressure.

Commercial class buildings 2-9, typically state external wind pressures in kilopascals of pressure (kPa).

Residential class 1 buildings, typically state external wind zones in N1-N6 and C1-C4.

Architectural Ceiling Panels and Tiles are designed to withstand certain internal wind pressures and ceiling insulation weight up to 3 kg/m<sup>2</sup>.

Always ensure the 3rd party ceiling support system is warranted to carry the weight of the Architectural Ceiling Panels and Tiles.

It is the responsibility of the project engineer to determine the appropriate internal wind pressures for the projects ceiling, suitability of the ceiling support system to support the ceiling tiles or panels and the below deflection criteria is suitable for the intended project.

The product deflection is based on Span/360 is per AS/NZS 2785:2020 Suspended ceilings – Design and installation Table 2.4.5 – Deflection Limit (matt or textured finish).

Below Tables are suitable for all three profiles. Refer to Section 2 for the panel sizes.

**Table 1.1 – Internal Ceiling Tiles (Residential – AS 4055 Wind Category)**

TILE GRID CEILINGS:		
Suitability based on two way simply supported on 4 sides under uniformly load insulation mass of 3 kg/m <sup>2</sup> and Span/360.		
CEILING TILE GEOMETRY (mm)	AS 4055 WIND CATEGORY	PRODUCT SUITABILITY
600 x 600	N1	OK
	N2	OK
600 x 1200	N3	OK
	N4	OK
	N5, N6 and C1 to C4	NOT SUITABLE

**Table 1.2 – Internal Ceiling Tiles (Commercial – AS 1170.2 ULS Internal Wind pressure)**

TILE GRID CEILINGS:		
Suitability based on two way simply supported on 4 sides under uniformly load insulation mass of 3 kg/m <sup>2</sup> and Span/360.		
CEILING TILE GEOMETRY (mm)	AS/NZS 1170.2 ULS INTERNAL WIND PRESSURE (KPa)	PRODUCT SUITABILITY
600 x 600	0.25	OK
	0.5	OK
600 x 1200	0.75	NOT SUITABLE

Tables 1.1 and 1.2 are derived from a detailed FEA analysis performed by David Beneke Consulting Pty Ltd as per Structural certification 2024-14-LO-40 including Excel spreadsheet 2024-14-LO-40 – Laminex 12mm Interior Architectural Ceiling Tiles – Summary Tables – with FEA – Revision 4.



**Table 2.1 – Internal Ceiling Panels (Residential – AS 4055 Wind Category)**

Note: Refer to the fastener section for recommended screw types and fixing method.

PANEL CEILINGS:			
Maximum Fastener Spacing along panel long edge into furring channel (0.42 to 0.5 mm BMT)			
Longitudinal Edge of sheet running parallel to support furring channels – Simple supported under uniformly load insulation mass of 3kg/m <sup>2</sup> & panel deflection calculated at span/360.			
	SUPPORT SPACING (mm)	AS 4055 WIND CATEGORY	SCREW SPACING (mm)
VGROOVE 100	500	N1	300
		N2	300
		N3	300
		N4	300
		N5	300
		N6	300
		C1	300
		C2 to C4	NOT APPLICABLE
BATTEN 60	540	N1	300
		N2	300
		N3	300
		N4	300
		N5	300
		N6	NOT APPLICABLE
		C1	300*
		C2 to C4	NOT APPLICABLE
BATTEN 40	560	N1	300
		N2	300
		N3	300
		N4	300
		N5, N6 and C1 to C4	NOT APPLICABLE

\* Denotes a reduced ceiling insulation load of 0 kg/m<sup>2</sup>.



**Table 2.2 – Internal Ceiling Panels (Commercial – AS 1170.2)**

Note: Refer to the fastener section for recommended screw types and fixing method.

PANEL CEILINGS:			
Maximum Fastener Spacing along panel long edge into furring channel (0.42 to 0.5 mm BMT)			
Longitudinal Edge of sheet running parallel to support furring channels – Simple supported under uniformly load insulation mass of 3 kg/m <sup>2</sup> and panel deflection calculated at span/360.			
	SUPPORT SPACING (mm)	AS/NZS 1170.2 ULS INTERNAL WIND PRESSURE (KPa)	SCREW SPACING (mm)
VGROOVE 100	500	0.25	300
		0.5	300
		0.75	300
		1	NOT APPLICABLE
BATTEN 60	540	0.25	300
		0.5	300
		0.75	NOT APPLICABLE
BATTEN 40	560	0.25	300
		0.5	300
		0.75	NOT APPLICABLE

Tables 2.1 and 2.2 are derived from calculations performed by David Beneke Consulting Pty Ltd as per Structural certification 2024-14-LO-40 including Excel spreadsheet 2024-14-LO-40 – Laminex 12mm Interior Architectural Ceiling Panels - Direct Fix Summary Tables – Revision 3.



# Section 5: Design Guidelines

When you are in the planning and design stage of your project there are some important points to consider ensuring your installation meets the compliance requirements for the Architectural Ceiling Panels and Tiles warranty.

Key considerations for your Architectural Ceiling Panels or Tiles project include both aesthetic detailing and the planning of the location or room in which the panels/tiles are to be installed.

Architectural Ceiling Panels and Tiles are not suitable for use in any external applications.

- Ⓜ Architectural Ceiling Panels and Tiles are a timber-based product. Care should be taken when installing to manage the moisture environment from the adjacent air conditioning plant and pipe works.
- Ⓜ **DISCLAIMER:** Architectural Ceiling Panels and Tiles cannot be installed in direct 'Splash Zones'. This includes showers overhead in accordance with AS 3740 and NCC Volume One, F1.7 and Volume Two, 3.8.1).
- Ⓜ Claims resulting from failure to adequately seal all exposed edges will not be recognised.

Project specification documents must include installation instructions and you must follow all technical requirements of the Architectural Ceiling Panels and Tiles installation guide.

3rd party ceiling system and assembly must comply with AS/NZS 2785:2020—Suspended Ceiling-Design and installation and other relevant codes for your intended projects.

Please refer to the manufacturer guidelines for the 3rd party ceiling system you are installing and its suitability for use with the Architectural Ceiling Panels and Tiles. Ensure the supporting roof structure is designed for the 3rd party ceiling system.

Planning the placement of penetrations including but not limited to sprinklers, smoke alarm systems, lighting, and air conditioning relative to panel layout and ensuring compatibility with electrical wiring.

Penetrations in the Architectural Ceiling Panels and Tiles must be smooth and jag-free cut using appropriate tools. Ensure there is an adequate clearance around the penetration, and seal all cut edges. Please refer to section 6.4 for more information.

- Ⓜ Penetration through Architectural Ceiling Panels and Tiles to accommodate light fittings, shower fittings, ducts, and vents of any description, must be sealed to prevent moisture ingress to the panel/tiles and prevent leakage behind the panels/tiles.

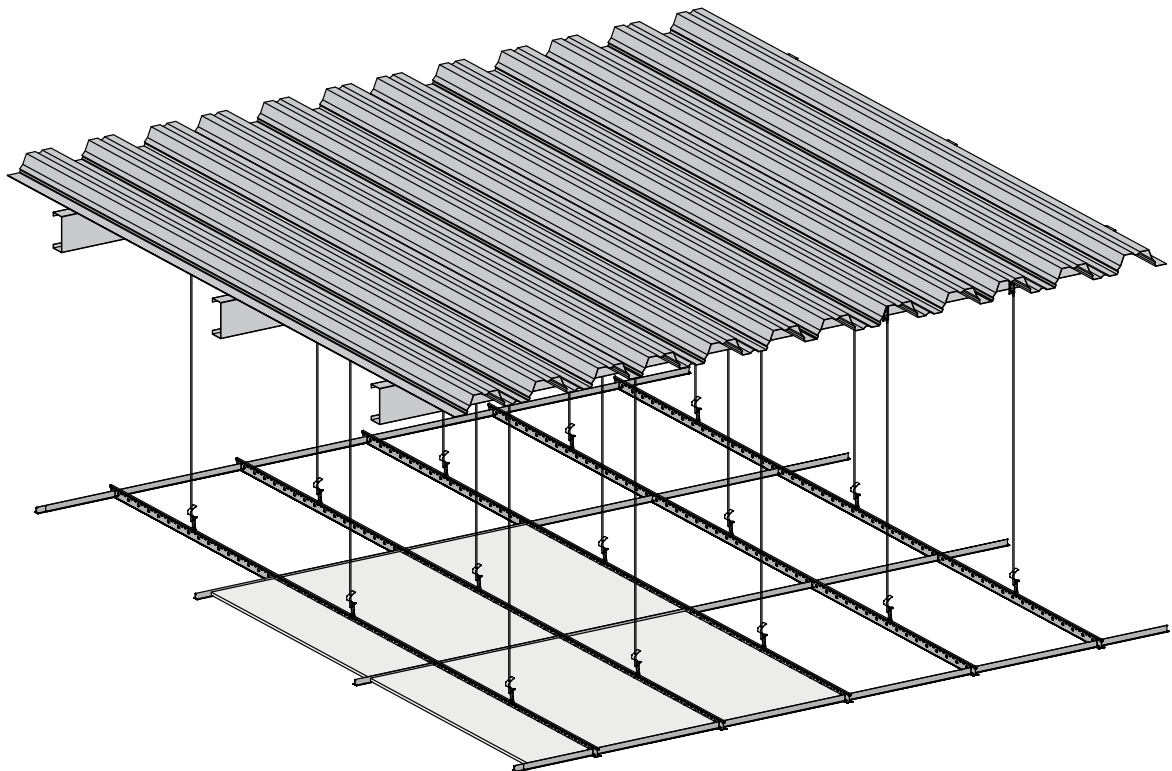
Consider the corrosive environment and take measures to prevent potential corrosion of ceiling framing components and fixings caused by corrosive chemicals and moisture in

the ceiling space. In areas with high humidity and fluctuating temperature ranges, it is recommended to use expressed joints to release humidity.

## 5.1 Types of Ceiling Systems

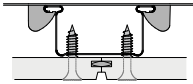
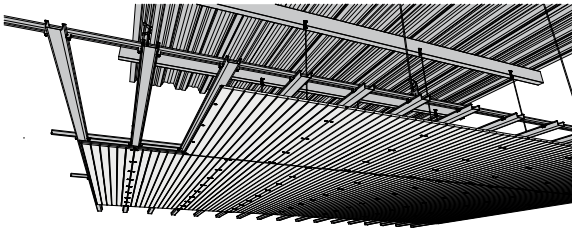
ATTRIBUTE	CEILING SYSTEM		
	DROP-IN TILE IN SUSPENSION GRID SYSTEM	DIRECT FIX- BATTENS	DIRECT FIX-SUSPENSION SYSTEM
Building Type	Commercial	Typically Residential	Typically Commercial
Framing above	Metal Suspension System	Timber Batten/Metal furring channel	Metal suspension system
Compatibility	Architectural Ceiling Tiles	Architectural Ceiling Panels	Architectural Ceiling Panels
Panels/Tiles installed	From underside or from top	From underside, Face fixed	From underside, Face fixed
Screw Fixing	No screw fixing, tile sits inside the channels	Yes, face fixed	Yes, face fixed
Look	Grid look with channels shown	Panel long edge, fixed seamless or expressed joints. Panel short edge always expressed	Panel long edge, seamless or expressed joints. Panel short edge always expressed

## 5.2 Design Options – Tiles

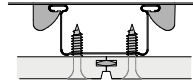
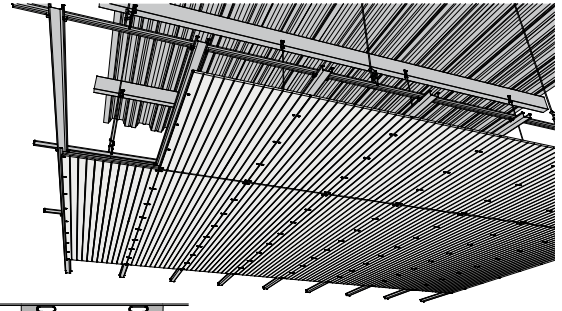


### 5.3 Design Options — Panels

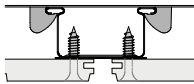
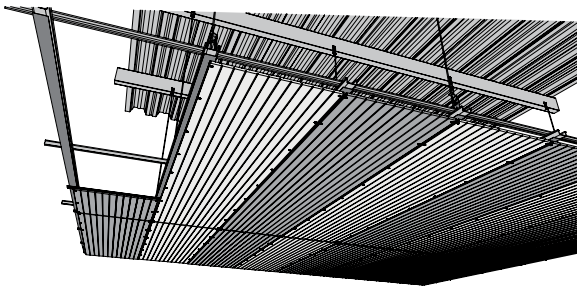
STAGGERED SEAMLESS LAYOUT OPTION



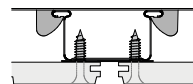
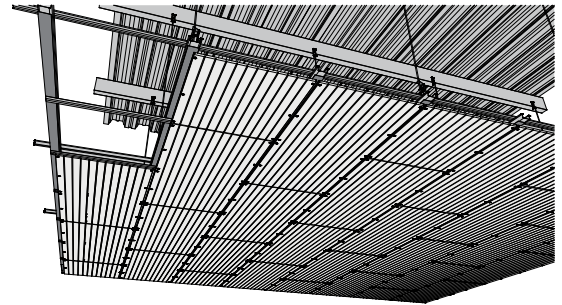
ALIGNED SEAMLESS JOINT LAYOUT



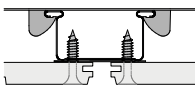
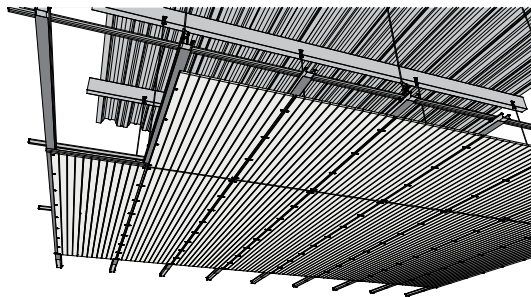
DECOR PANEL MIX AND MATCH



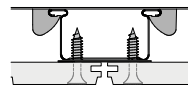
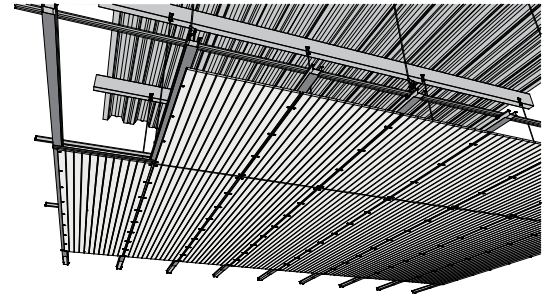
STAGGERED WIDE EXPRESSED JOINT LAYOUT OPTION



ALIGNED WIDE EXPRESSED JOINT OPTION



ALIGNED NARROW EXPRESSED OPTION



# Section 6: Fabrication

## 6.1 Tools and Equipment

This is not an exhaustive list, but it is recommended that the following be checked and available:

- Tape Measure
- Cordless drill with screw tips and drill bits
- Ladder/rolling scaffold
- Spirit Level or Laser Level
- Snips—metal cutting tin snips
- Nail punch
- Plier with wire cutter
- Chalk line
- String Line or equivalent
- Power Saw
- Tungsten Carbide TCT (triple chip blade) 72+ teeth
- Screw Gun
- Pencil or chalk for marking out

## 6.2 Workplace

Keep the work area clean, uncluttered, and well-lit.

Avoid panel contact with abrasive surfaces, grit or other processing debris. Contamination trapped between panels will cause surface indentations, marring or scratching.

Avoid contact with solvents, moisture and oil as they can contaminate the panels and affect the performance of adhesives and coatings.

Ensure the panels/tiles are fully supported before any cutting or processing.



## 6.3 Cutting

**Please ensure all parties using cutting equipment are suitably trade qualified or experienced in the use of these tools. All safety guards supplied with the equipment must be maintained and tools must be inspected before use including electrical cords and plugs in good working order. Please follow the safety procedures supplied by the manufacturer of the tools employed.**

**Incorrect use of cutting tools and failure to use appropriate caution can result in substantial injury. Only proceed once safe working conditions have been established.**

Architectural Ceiling Panels and Tiles can be readily cut with a power saw. New or sharpened blades must always be used as blunt or dull blades will decrease the accuracy and finish of cuts. Select a blade suitable to cut MDF, it is recommended using Tungsten Carbide TCT or diamond tip blade.

Direction of the cutting and orientation of the board (decorative face up or decorative face down) is dependent on the power tool/blade selected for use. It is recommended where scribing blades are used to cut the panel with the decorative face up.

It is recommended that a test piece be cut to verify the correct decorative face position for the specific cutting equipment to be used.

If using a router, do not allow the cutter to take too deep a cut at a time and only trench a maximum of one-third of the thickness, per pass.

## 6.4 Edge Sealing and Gap Sealant

### Brushable Sealer

Apply to all cut edges of panels/tiles using brushable sealer-Cabothane Clear Water Based Polyurethane.

### Gap Sealer

All expansion gaps of panels should be filled with Selleys 650 FC or SikaFlex 111 Sitect And Seal.

# Section 7: Architectural Ceiling Tiles

## 7.1 Fixing

Please check with 3rd party grid system's manufacturer if the hold down anchors are required. Validate internal wind pressure limits for the area of the project.

## 7.2 Architectural Ceiling Tile Installation — Drop-in Tile Grid Suspended Systems

### 7.2.1 Preparation

All 3rd party suspension systems must be suitable for the project, whether new or existing. Fixings, loads, and engineering specifications of 3rd party grid systems are the responsibility of the 3rd party manufacturer.

**Failure of overhead 3rd party grid systems may result in catastrophic safety outcomes. Absolute caution is required.**

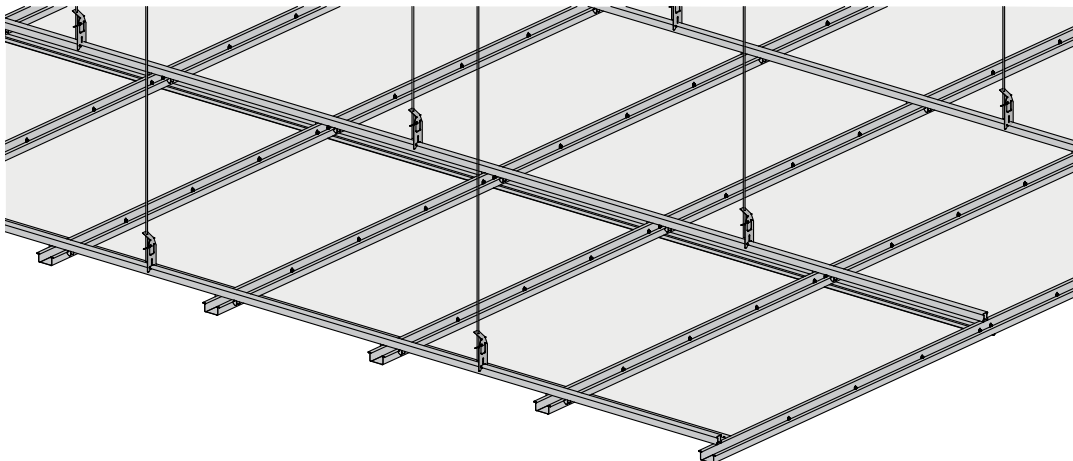
Clear the area beneath the ceiling to provide space for working and to prevent damage to fixings and fittings.

Ensure all working from height devices or platforms meet the safe height standards according to Worksafe Australia or equivalent state safety body.

Architectural Ceiling Tiles range is suitable for metric ceiling support systems specifically designed to support ceiling tiles. Please check your 3rd party ceiling system is suitable for the available Architectural Ceiling range (for sizes please refer to Section 2)

### 7.2.2 Drop-In Tile Grid Suspended System

Ensure the ceiling grid is properly installed and levelled as per the manufacturer's guidelines.



Note: Laminex does not provide a warranty for any 3rd party ceiling systems. The specifier must ensure that it is suitable for its intended use. Only use metric systems and ceiling support systems specifically designed to support ceiling tiles.

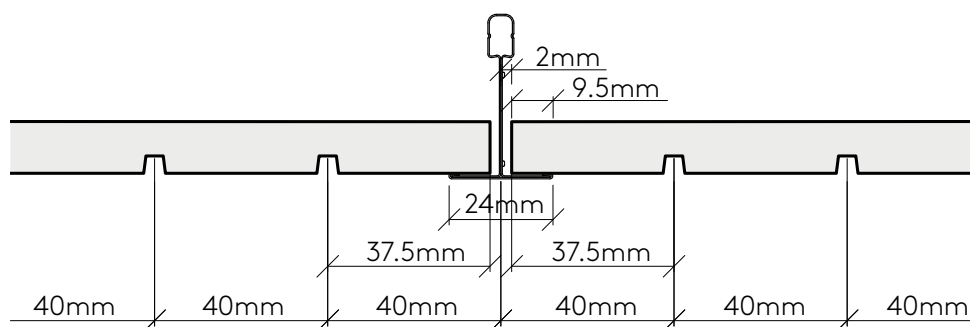
### 7.2.3 Installing Architectural Ceiling Tiles

Use suitable and project-approved working at-height equipment to reach areas of the ceiling safely. Failure of safety equipment when working at heights can result in catastrophic personal injury.

Please check that the 3rd party grid system is correctly installed per the manufacturer's instructions. Ensure that the primary and secondary rails of the grid are free of construction debris and are clean and suitable for tiles to be fitted.

Place the first Architectural Ceiling Tile into the grid, ensuring it fits snugly and sits flat within the frame.

Ensure full support of all tile edges by a minimum of 9.5 mm and the maximum gap between T and the panel edge is 2mm



The Tile Grid Support

Continue adding tiles one by one, working from one end of the 3rd party grid to the other.

Check the alignment and level of each Architectural Ceiling Tile as you go, making adjustments as needed to maintain a uniform appearance.

Check the alignment of the routed decorative groove on the tiles is consistent with the intended overall design.

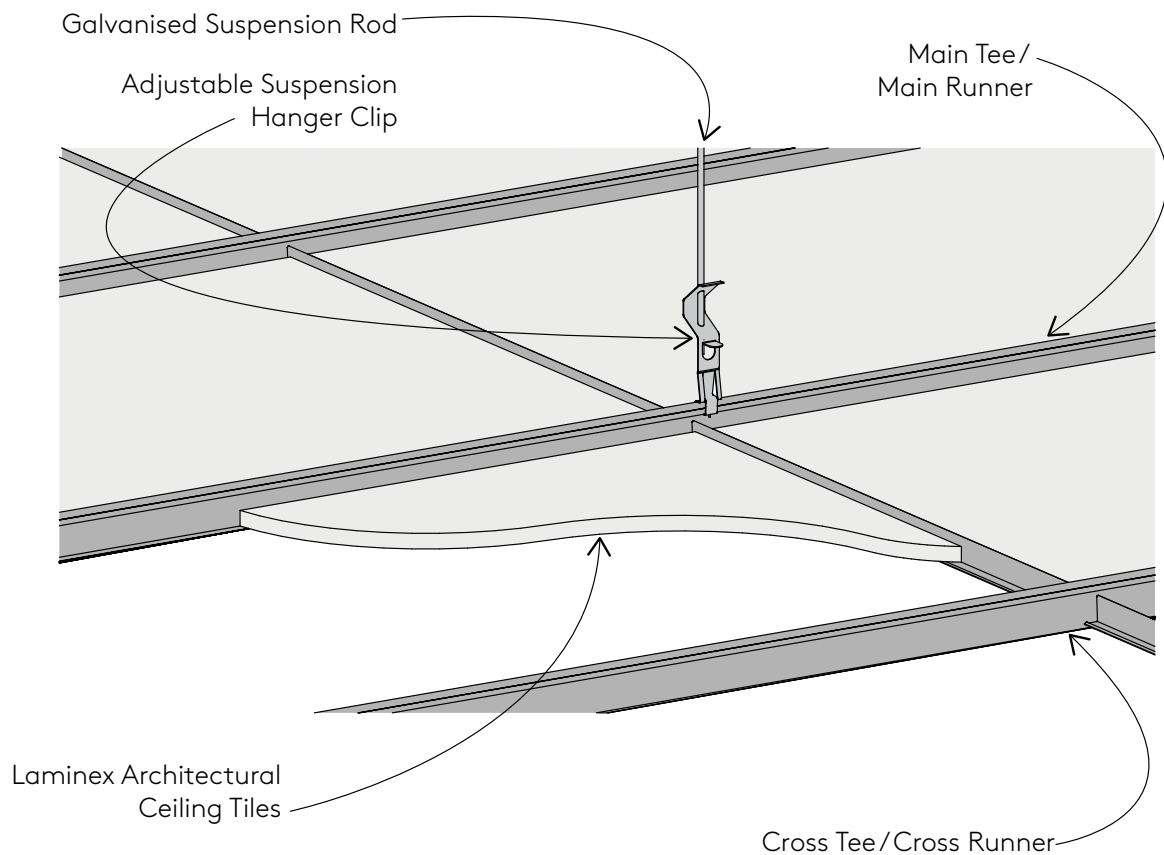
Measure and mark any tiles that need to be cut to fit around obstructions such as light fixtures, vents, or ducts.

Ensure the cut edges are smooth and free from rough edges.

Check for any gaps or inconsistencies between tiles and adjust as necessary for a seamless fit.



Inspect the finished installation to ensure all Architectural Ceiling Tiles are properly aligned and securely in place.



### **When installing into an existing/aged grid ceiling support system:**

Architectural Ceiling Tiles range is suitable for metric systems and ceiling support systems specifically designed to support the ceiling tiles. Please check your 3rd party ceiling system is suitable for the available Architectural Ceiling range (for sizes please refer to Section 2).

Ensure the existing/aged system:

- suits the size of the tiles with the above edge supports.
- is designed and installed to carry the weight of the tiles and any additional weight.



# Section 8: Architectural Ceiling Panels

## 8.1 Fixing

### 8.1.1 Fasteners


Nails must not be used for fixing.

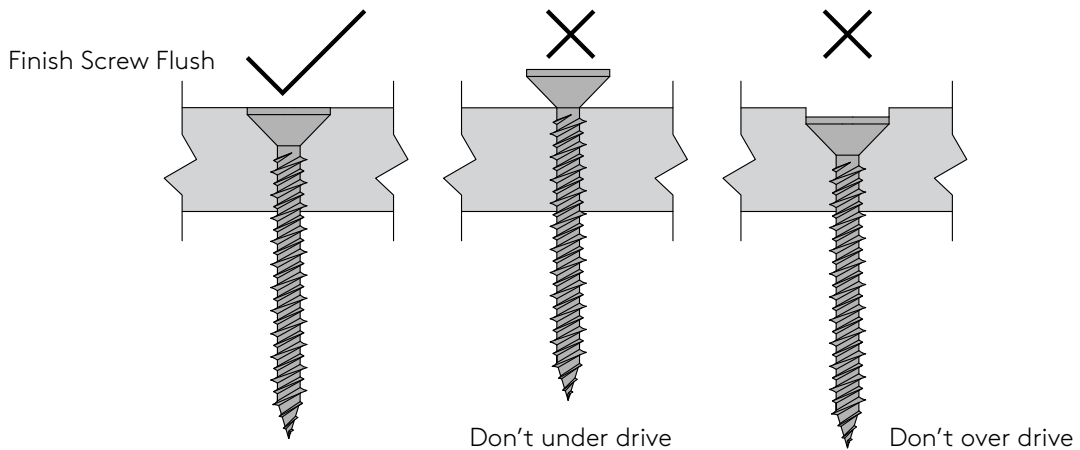
Before screwing, pre-drill with a 4mm diameter drill. Use a drill bit suitable for MDF. When pre-drilling furring channel must be fully supported.

Drive screws flush and avoid overdriving them. Screw-fix long panel edges at minimum 300mm centres, minimum 15mm from the panel edge and minimum 30mm from the panel ends.

Failure to use pilot holes may result in chipout on decorative face or disruption on the MDF around the screws.

Panel long edges should be continuously supported and screw-fixed into a furring channel. When predrilling, use a drop sheet to collect debris or vacuum to control debris on site.

Fasteners	Description
	Zenith CBJ7430 (Metal Phillips drive CSK Rib Head Screw 8G 30mm)
	Zenith CSC7430 (External Timber Phillips drive CSK Rib head Screw 8G 30mm)



Refer to the section 4.4 for internal wind pressure limits.

## 8.2 Architectural Ceiling Panel Installation — Direct fix to battens/furring channels

### 8.2.1 Preparation

All 3rd party suspension systems considered for the project must be suitable for the project, whether new or existing. Fixings, loads, and engineering specifications of 3rd party batten/furring channel systems are the responsibility of the 3rd party manufacturer.

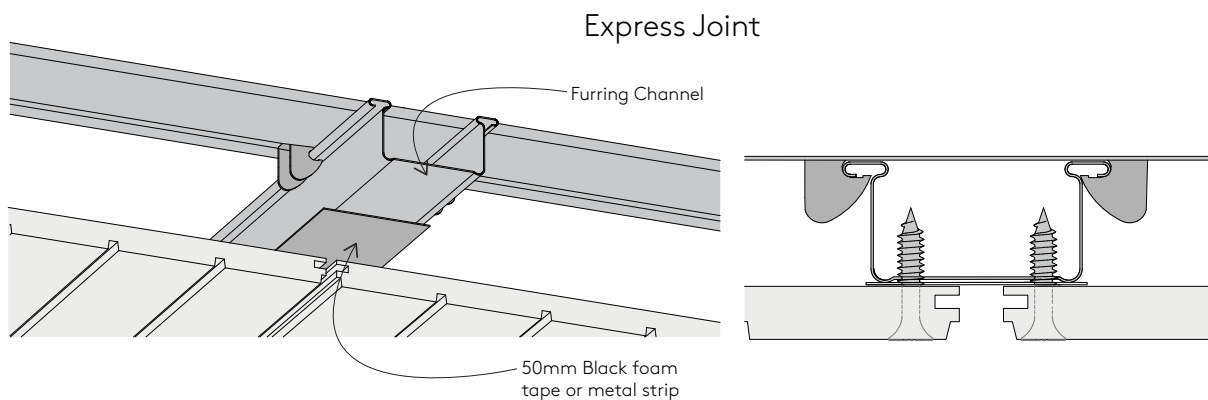
**Failure of overhead 3rd party batten systems may result in catastrophic safety outcomes. Absolute caution is required.**

Plan how you want the Architectural Ceiling Panel to run. Determine the joint type required, refer to section below for more details.

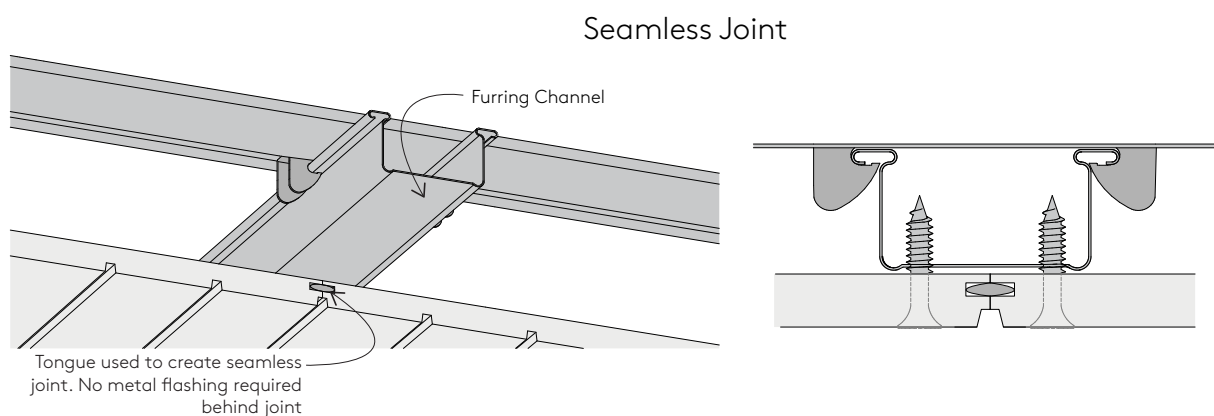
Clear the area beneath the ceiling to provide space for working and to prevent damage to fixings and fittings.

Ensure all working from height devices or platforms meet the safe height standards according to Worksafe Australia or equivalent state safety body.

### 8.2.2 Express Joint



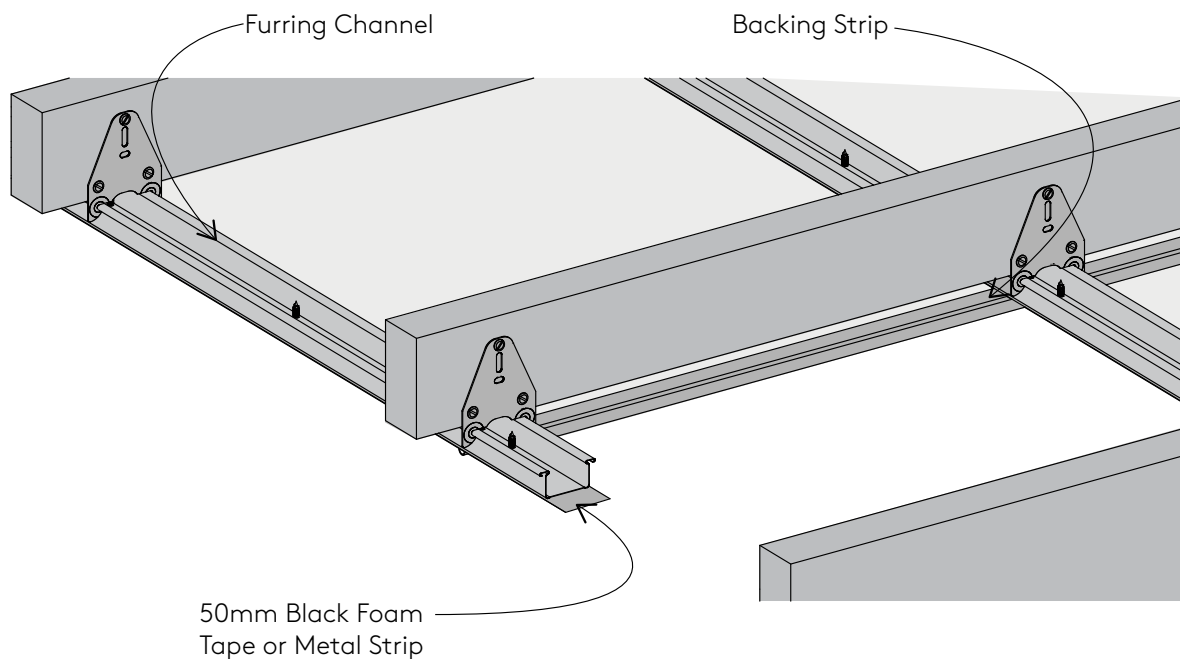
### Seamless Joint



### 8.2.3 Installing furring channel/batten system

**Screw-on furring channels/battens:** Install the furring channel or battens to the ceiling. Secure the channel to the joists, ensuring it's level. Repeat for all channels, maintaining consistent spacing.

Note: Laminex does not provide warranty for the 3rd party ceiling system. The specifier must ensure that it is suitable for its intended use.



### 8.2.4 Installing Architectural Ceiling Panels

Use suitable and project approved working at-height equipment to reach areas of the ceiling safely. Failure of safety equipment when working at heights can result in catastrophic personal injury.

Please check that the furring channel/batten system is correctly installed per the manufacturer's instructions.

Mark the starting line for the battens or furring channels on the joists using a level and pencil.

Measure the distance between furring channels. If panels need to be trimmed to fit, use a pencil to mark the appropriate dimensions on the panels. Cut the panels to size using a power saw.

Position the first panel against the furring channels, ensuring it is aligned properly.

Use screws to attach the panel to the furring channel/batten. Start at one corner and work your way across, placing screws approximately every 300mm along each furring channel/batten. For the expressed join ensure the screw is not fix through the metal backing strip.

Repeat this process for each subsequent panel, refer to section 8.2.3 for different joint types.

**CAUTION:** Do not overtighten screws as this may cause damage to the panels or furring channel.

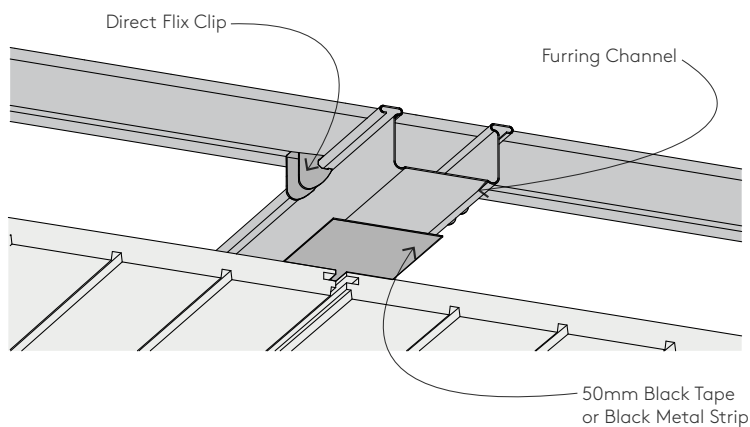
Measure the exact space between walls of the ceiling to ensure a tongue and groove fit for the last panel.

Work your way across the room, installing each Architectural Ceiling Panel until your ceiling is complete.

### Long Edge Joining — Exposed joint vs No exposed Joint

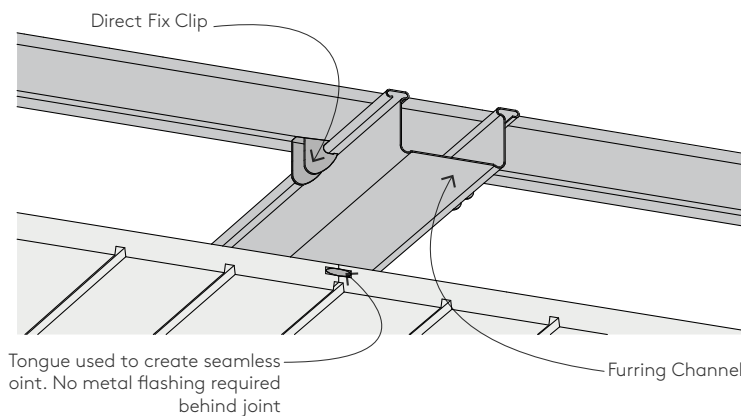
#### OPTION 1: Exposed Joint

(Remove Tongue)

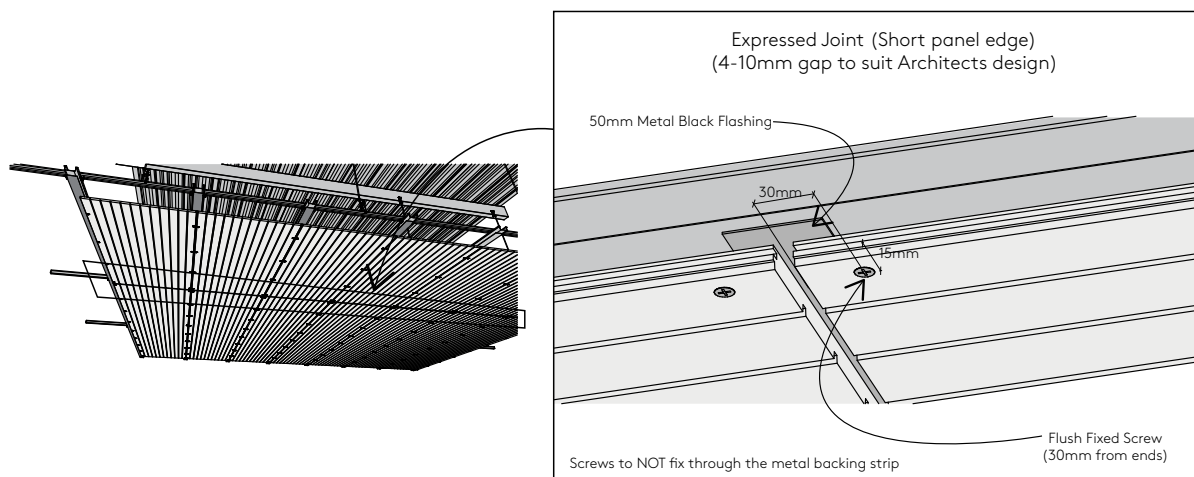


#### OPTION 2: No Exposed Joint

(Use Tongue)



### Short Edge Joining- Always an expressed joint



## 8.3 Architectural Panel Installation – Direct fix to suspended system

### 8.3.1 Preparation

All 3rd party suspension systems considered for the project must be suitable for the project, whether new or existing. Fixings, loads, and engineering specifications of 3rd party grid systems are the responsibility of the 3rd party manufacturer.

**Failure of the overhead 3rd party grid systems may result in catastrophic safety outcomes. Absolute caution is required.**

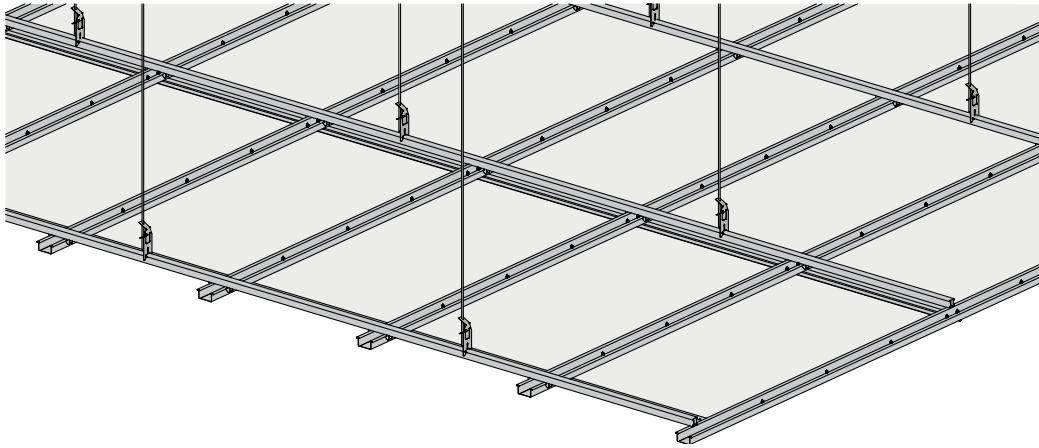
Plan how you want the Architectural Ceiling Panel to run. Determine the joint type required, refer to section 8.2.3 for more details.

Clear the area beneath the ceiling to provide space for working and to prevent damage to fixings and fittings. Ensure all working from height devices or platforms meet the safe height standards according to Worksafe Australia or equivalent state safety body.

### 8.3.2 Installing Direct Fix Suspended System

Ensure the ceiling grid is properly installed and levelled as per the manufacturer's guidelines.

**NOTE:** Laminex does not warrant the 3rd party ceiling system. The specifier is responsible for ensuring its functionality.



### 8.3.3 Installing Architectural Ceiling Panels

Use suitable and project approved working at-height equipment to reach areas of the ceiling safely. Failure of safety equipment when working at heights can result in catastrophic personal injury.

Please check that the 3rd party grid system is correctly installed per the manufacturer's instructions. Ensure that the primary and secondary rails of the grid are free of construction debris and are clean and suitable for tiles to be fitted.

Mark the starting line for the furring channels on the suspended system using a level and pencil.

Measure the distance between furring channels. If panels need to be trimmed to fit, use a pencil to mark the appropriate dimensions on the panels. Cut the panels to size using a power saw.

Position the first panel parallel with the furring channels, ensuring it is aligned properly.

Use screws to attach the panel to the furring channel/batten. Start at one corner and work your way across, placing screws every 300mm along each furring channel/batten.

Repeat this process for each subsequent panel, refer to section 8.2.3 for different joint types.

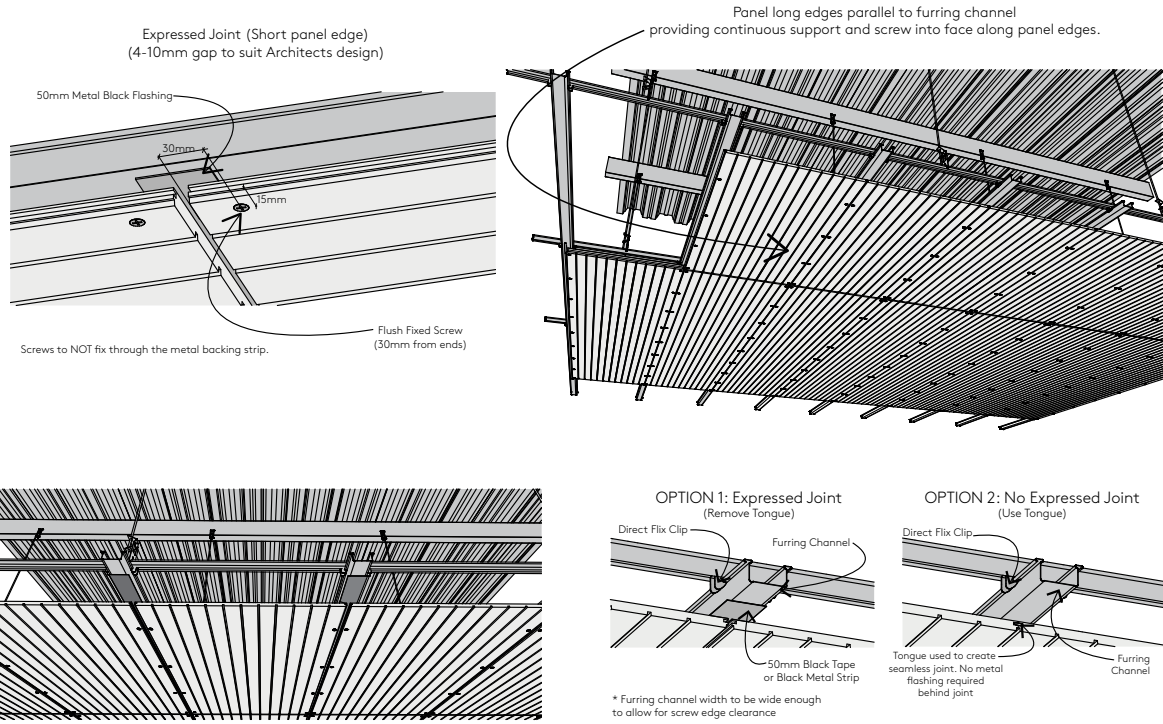
**CAUTION:** Do not over-tighten screws as this may cause damage to the panels or furring channel.

Measure the exact space between walls to ensure a tongue and groove fit for the last panel.

Work your way across the room, installing each Architectural ceiling panel until your ceiling is complete.



## Suspended Systems





# Section 9: Routine Maintenance

It is a requirement to regularly check as part of the building maintenance schedule that the ceiling and roof space has not sustained damage.

This should include confirming that Laminex Architectural Ceiling tiles remain supported on all 4 sides with a minimum 9.5mm of support and have not shifted in their position within the grid system since installation.

Check for movement or damage to the ceiling tiles that may cause them to dislodge or fall out. Catastrophic damage and injury may result from falling ceiling tiles.

Check that no water leaks, rust, chemical damage or other conditions are present that may impact the integrity or safety of the grid system and the tiles contained within.

Please follow all instructions for maintenance provided by the 3rd party grid system supplier.

Routine maintenance should be scheduled to occur at least once every 12 months, and more regularly if site conditions warrant.



# Section 10: Ceiling terms

**Base Metal Thickness:** The thickness of the primary metal material before any coatings or treatments.

**Countersink Screw/Fasteners:** Screws or fasteners designed to sit flush with or below the surface of the material.

**Gauge:** A measurement of the thickness of sheet metal.

**Screw Gun:** A tool used to drive screws efficiently.

**Bulkhead:** A dividing wall or barrier between compartments.

**Ceiling Hanger:** A device used to suspend ceiling components from the structure above.

**Non-Trafficable Ceiling:** A ceiling not designed to support weight from people walking on it.

**One-Way and Two-Way Ceiling System:** Structural systems for supporting ceiling panels, either in one direction (one-way) or two directions (two-way).

**Ceiling Brackets and Types:** Various supports are used to attach ceiling components to the structure.

**Furring Channel and Top Hats:** Metal channels used to level and support ceiling or wall finishes.

**Batten (Timber):** Strips of wood used for spacing and securing materials in construction.

**Hardware Direct Fix:** Directly attaching hardware to a surface without intermediate components.

**Suspended Hardware:** Hardware used to hang or suspend components, such as ceilings or lighting.

**Trusses, Rafters, Joists:** Structural elements used to support roofs.

**Tools Required:** The tools needed for a particular construction task.

**Expressed Joint:** A joint in building materials designed to be a visible feature.

**Exposed Ceiling vs. Concealed:** Comparison between ceilings with visible structural elements (exposed) and those with hidden elements (concealed).

**Deflection/Sag:** The downward bending or deformation of a structural element under load.

# Disclaimer

Directional variations in the protective coating may affect the reflectivity of the surface. Slight shading and minor variations in the surface finish only visible at an acute angle or under critical light will not be covered under warranty. Darker decors have a greater propensity to demonstrate this contrast. This does not affect the overall performance or durability of the product.





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