

Version V1.6

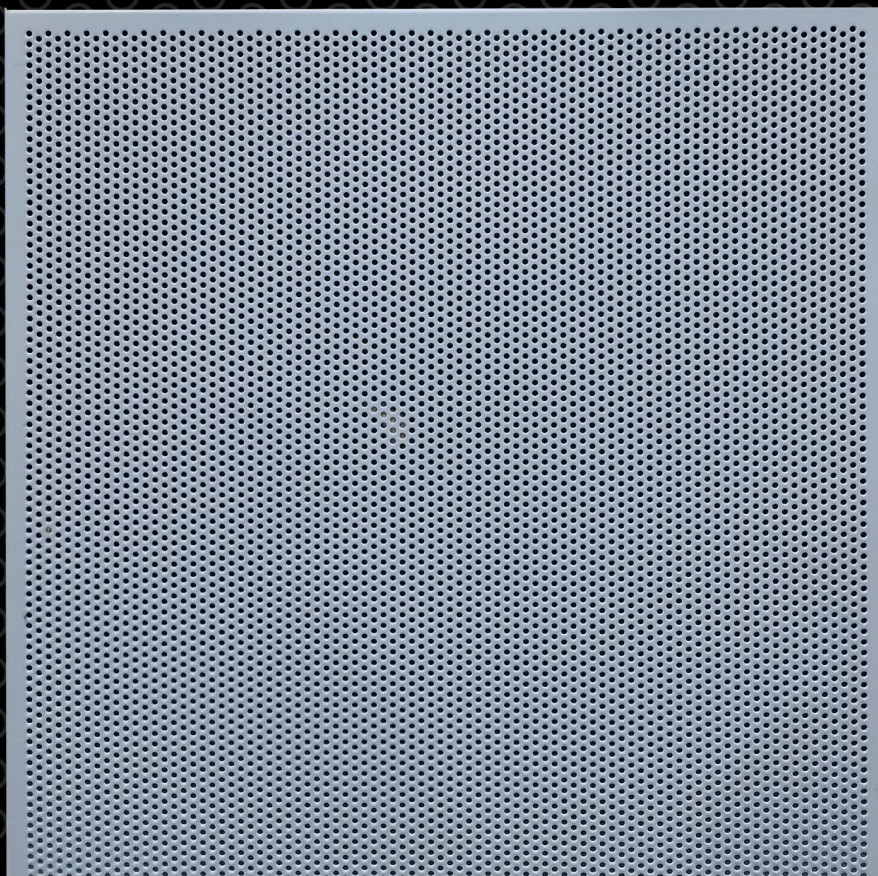
PERFORATED METAL ACOUSTIC PANELS



AbsorberLine®

Perforated Metal Acoustic Panels

MF, EV & ULTRA



Contact us.

Let's talk about your project.

We are proud of our reputation for excellent service.

Our team will make sure we do everything possible to help you and your project,
as together we can build better.



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Made Possible By



Welcome to AbsorberLine®

Elevating Environments with 'High Impact' Metal Acoustic Panels. Uncover the Potential of AbsorberLine® Sound Absorbing Metal Acoustic Panels.

Introducing AbsorberLine® EV ULTRA

AbsorberLine® EV ULTRA is our premium aluminium acoustic panel system, developed for demanding internal and external environments where long-term durability, low maintenance and high acoustic performance are essential.

Manufactured from perforated aluminium and available with a choice of acoustic infill, EV ULTRA combines a robust metal outer construction with carefully selected sound-absorbing materials to reduce reverberation and control unwanted reflected sound.

The aluminium construction provides excellent resistance to moisture, UV exposure, insects and vermin, making EV ULTRA particularly well suited to challenging environments and external applications.

Depending upon the selected panel configuration and acoustic infill, **EV ULTRA can achieve a reaction-to-fire classification of up to A2-s1,d0 in accordance with BS EN 13501-1.**

At AbsorberLine®, we specialise in the design and manufacture of high-impact metal acoustic panels for applications where conventional acoustic finishes may not provide the required level of durability.

Our panels are engineered to withstand demanding environments whilst providing effective sound absorption and a clean architectural appearance. A wide choice of panel dimensions, depths, perforation patterns and RAL finishes enables the system to be tailored to suit both the acoustic and aesthetic requirements of each project.

From education, sports and leisure facilities to industrial, commercial and external environments, AbsorberLine® provides a versatile acoustic solution designed around the demands of the space.

Our experienced team works closely with architects, acoustic consultants, contractors and clients to develop solutions that balance **acoustic performance, durability, fire performance and appearance.**

Engineered for Performance. Designed to Last.

With **AbsorberLine® EV, EV ULTRA and MF**, we can offer a range of perforated metal acoustic panel systems manufactured from galvanised steel or aluminium, allowing the most appropriate construction to be selected for the performance requirements of each project.

AbsorberLine® – durable acoustic performance without compromising design.

Made Possible By



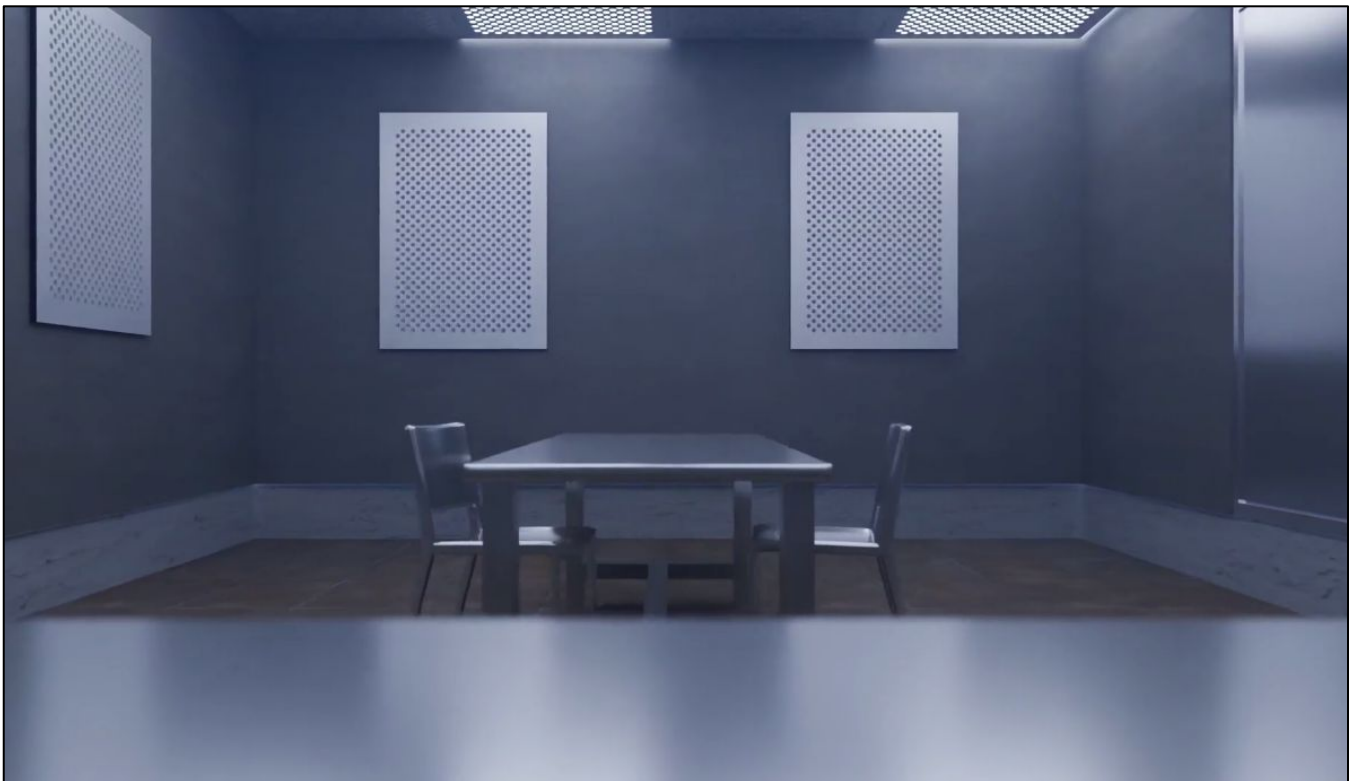
AbsorberLine® EV (External Rail Application)

Enhancing Railway Trackside Environments with Durable, UV-Stable Perforated Aluminium Acoustic Panels.



AbsorberLine® MF (Internal Justice Application)

High-Impact Acoustic Control for Prisons, Police Custody Suites and Secure Environments.



Application videos can be found on <https://www.absorberline.com>

AbsorberLine® Projects.

Check out these success projects to see how communities have made the most out of their site using AbsorberLine®.

[Rail Projects](#)

[Highway Projects](#)

[Architectural Projects](#)

[Justice Projects](#)

[Industrial Projects](#)

**Rail Project,
Brisbane,
Australia**
(Under NDA)

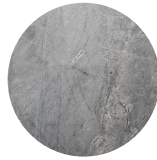
**Recording
Studio, Media
City**

Volvo, Duxford

**HMP
Bronzefield,
Middlesex**

AbsorberLine® EV vs AbsorberLine® MF.

Perforated Galvanised Steel vs Aluminium Acoustic Panels



	AbsorberLine® EV	AbsorberLine® MF/EV <u>ULTRA</u>	AbsorberLine® MF
Frame	Galvanised Steel	Aluminium	Galvanised Steel
Acoustic Infill	EnviroPhon®	Mineral Fibre/EnviroPhon®	Acoustic Mineral Fibre
Suspension	Channels	Direct (Key Hole)	Nvelope NV7 (slot fix)
Finish	Any RAL	Any RAL	Any RAL
Application	Internal Or External Use	Internal Or External Use	Internal Or External Use
Thickness (Panel Depth)	25mm – 100mm	25mm – 100mm	25mm – 100mm
UV Resistant	Yes*	Yes*	Yes*
Moisture Resistant	Yes*	Yes*	Yes*
Impact Resistant	Yes*	Yes*	Yes*
Vermin Resistant	Yes*	Yes*	Yes*
Insect Resistant	Yes*	Yes*	Yes*
Reaction to Fire Classification (BS EN 13501-1)	Class B-s2, d0	Up to Class A2-s1, d0**	*Class A2-s1, d0
Indicative Service Life†			
Internal	10 to 25 + Years	25 + Years	10 to 25 + Years
External	Up to 10 Years (as standard)	Up to 25 Years (as standard)	Up to 10 Years (as standard)

***Environmental durability:** Suitable for demanding internal and external environments, subject to the specified coating system and project conditions. Performance will vary depending on location, installation and maintenance

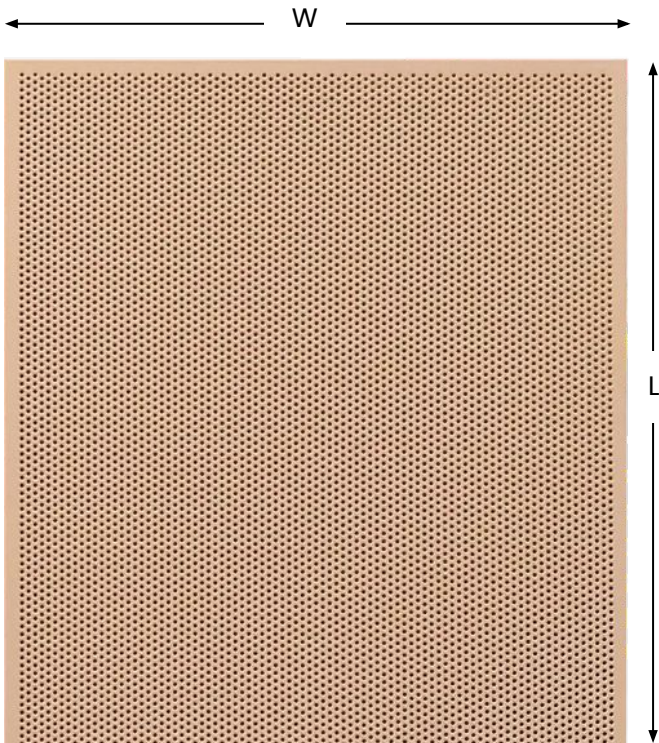
****Reaction to fire classification explained:**

- **A2** – Very limited contribution to fire; the second-highest reaction-to-fire classification under BS EN 13501-1, immediately below Class A1.
- **B** – Limited contribution to fire, but below the performance level of Classes A1 and A2.
- **s1** – Lowest level of smoke production
- **s2** – Intermediate level of smoke production.
- **d0** – No flaming droplets or particles within the classification criteria.

These suffixes form part of the BS EN 13501-1 reaction-to-fire classification system used in Approved Document B.

† Service life explained: Service-life figures are indicative and depend upon the selected coating system, environmental exposure, location, maintenance and project-specific conditions. Enhanced coating systems are available for more demanding external environments.

Disclaimer: Information provided is based on current knowledge and standard configurations. Performance may vary depending on specific project conditions, installation method and product configurations. Please consult our technical team for detailed specification advice.



W – Width | D – Depth | L – Length

Depth (mm)	Length (mm)*	Width (mm)
50	2500 and 3000	266 and 475
65	2500 and 3000	230 and 440
100	2500 and 3000	167 and 375

Packaging, Handling & Storage.

- Panels and accessories are supplied suitably protected for transport. Store flat, dry and protected from weather and mechanical damage. Do not drag panels across one another.

Technical Advice.

- AbsorberLine® should be specified according to the acoustic, environmental, impact and reaction-to-fire requirements of each project.
- Our technical team can assist with product selection, panel configuration, fixing requirements and specification.

Specification.

AbsorberLine® perforated metal acoustic panels are durable sound-absorbing panels designed for wall, ceiling and acoustic barrier applications across architectural, commercial, industrial and secure environments.

Panels combine a perforated metal facing with a high – performance acoustic infill to absorb airborne sound and reduce reverberation.

Systems are available in **aluminium or galvanised steel**, depending upon the product and application. **EV ULTRA aluminium** is designed for demanding internal and external environments, combining durability with lightweight, corrosion-resistant construction.

Material Variants (Acoustic Infill & Reaction to Fire).

- **EV – EnviroPhon®:** Internal and external applications – **B-s2,d0**
- **EV ULTRA – Aluminium:** Internal and external applications – **up to A2-s1,d0**, dependent upon configuration and acoustic infill
- **MF – Acoustic Mineral Fibre:** Primarily internal applications – **A2-s1,d0**

Reaction-to-fire classifications are to BS EN 13501-1 and depend upon the complete product configuration.

Weight.

- Approximate panel weight: **11–14 kg/m²**, dependent upon panel depth, metal construction and acoustic infill.

Standard Configuration.

- Standard panels utilise a **staggered perforation pattern**. Alternative perforations may be available subject to project requirements.

Thermal Conductivity.

- 0.33 W/mk @ 10°C

Applications.

- Prisons and police custody suites
- Railway and transport applications
- Sports halls and stadia
- Industrial environments
- Acoustic barriers and enclosures
- Architectural wall and ceiling treatments
- Recording and broadcast environments
- Commercial and public-sector buildings

Operating Environment.

- Suitable for normal building and environmental temperature ranges. For external, coastal, high-humidity or corrosive environments, the appropriate construction and coating system should be selected.

Colour and Finish.

- Available with a durable powder-coated finish in a wide range of **RAL colours**, subject to product selection and minimum order quantities.

Acoustic Performance.

Versatility and Adaptability in Any Environment

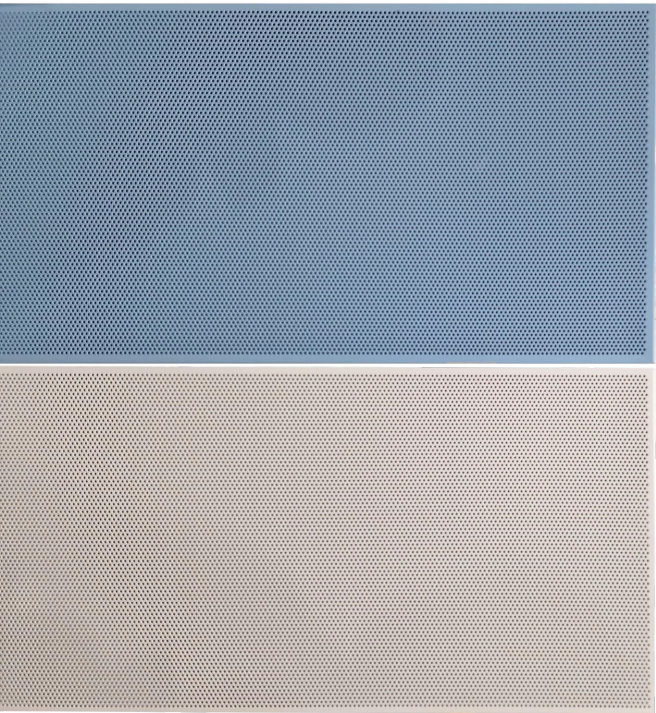
AbsorberLine® panels excel in a wide range of external applications, showcasing their versatility and adaptability. Whether installed at noisy construction sites or in bustling urban areas, these panels offer unparalleled exterior grade sound absorption. By effectively reducing noise levels, they create a quieter and more comfortable environment for both workers and the surrounding community. Their robust design ensures they can withstand harsh outdoor conditions while maintaining their sound absorbing properties and aesthetic appeal.

AbsorberLine MF

Product Description			Sound Absorption Coefficient (Tested to BS EN ISO 354:2003) Octave Bands (Hz)									Building Regulations Absorber Classification When tested to BS EN ISO 11654-1997	
			Airgap	Depth	125	250	500	1k	2k	4k	5k		
Absorber- Line MF	Direct	50mm	0.35	0.75	1.00	1.00	1.00	1.00	0.77	1.00	0.94	A	
	Direct	100mm	0.65	1.00	1.00	1.00	1.00	1.00	0.84	1.00	1.00	A	

AbsorberLine EV Variants

Product Description			Sound Absorption Coefficient (Tested to BS EN ISO 354:2003) Octave Bands (Hz)										Building Regulations Absorber Classification When tested to BS EN ISO 11654-1997
	Airgap	Depth	100	125	250	500	1k	2k	4k	5k	αw	NRC	
Absorber- Line EV variants	Direct	50mm	0.26	0.28	0.54	1.02	0.95	0.94	0.83	0.77	0.85	0.85	B
	15mm	65mm	0.14	0.15	0.65	0.96	0.94	0.96	0.85	0.84	0.95	0.90	A
	50mm	100mm	0.18	0.19	0.63	0.99	0.94	1.00	0.87	0.87	0.95	0.90	A



PERFORATED METAL ACOUSTIC PANELS.

Variant EV – AbsorberLine® EV

SPECIFICATION

Key Benefits:

- External Use.
- UV Stable.
- Patented perforated self healing steel.
- Superior, waterproof sound absorption EnviroPhon® infill.



Introducing AbsorberLine® EV (ft EnviroPhon® patented technology): Unleash the Power of Environmentally Friendly Acoustics with Exterior Grade Sound Absorption.

The Ideal Solution for Noise Control in Transportation Corridors, Effectively Reducing Noise from Motorways and Railways.

Motorways and railways are notorious for generating high levels of noise, causing discomfort for nearby residents and commuters. AbsorberLine® EV panels provide a highly effective solution for reducing noise pollution in transportation corridors. By strategically installing these panels along motorways and railways, the impact of noise from passing vehicles and trains can be significantly mitigated, creating a more peaceful and liveable environment for surrounding communities for 25 years.

Unrivalled Sound Absorption with EnviroPhon Technology.

EnviroPhon filled AbsorberLine® EV panels set a new standard for perforated metal acoustic panels, harnessing the power of EnviroPhon® UV stable, water resistant technology. These panels feature an infill of advanced sound-absorbing EnviroPhon®, which maximises their ability to effectively absorb and control external noise for 25 years.

Sustainable Acoustics for a Greener World.

By using EnviroPhon® infill in our AbsorberLine® panel system, you not only achieve exceptional acoustic performance but also contribute to a greener world. The EnviroPhon® infill is made from environmentally friendly materials, prioritising sustainability and reducing your carbon footprint without compromising on sound absorption excellence.

Product Description			Sound Absorption Coefficient (Tested to BS EN ISO 354:2003) Octave Bands (Hz)										Building Regulations Absorber Classification When tested to BS EN ISO 11654-1997
	Airgap	Depth	100	125	250	500	1k	2k	4k	5k	aw	NRC	
Absorber- Line EV	Direct	50mm	0.26	0.28	0.54	1.02	0.95	0.94	0.83	0.77	0.85	0.85	B
	15mm	65mm	0.14	0.15	0.65	0.96	0.94	0.96	0.85	0.84	0.95	0.90	A
	50mm	100mm	0.18	0.19	0.63	0.99	0.94	1.00	0.87	0.87	0.95	0.90	A

PERFORATED METAL ACOUSTIC PANELS.

Variant MF – AbsorberLine® MF

SPECIFICATION

Key Benefits:

- Internal Use.
- Any RAL finish.
- Mineral Fibre infill.
- UV Stable.



Introducing AbsorberLine® MF: The Ultimate Metal Acoustic Panel Solution.

Enhanced Acoustic Performance with AbsorberLine® MF.

AbsorberLine® MF is a revolutionary perforated metal acoustic panel solution designed to deliver exceptional sound absorption capabilities. Manufactured from a galvanised frame with a sound-absorbing mineral fibre (MF) infill, these panels provide superior acoustics in various environments.

Aesthetic Appeal and Customisation Options.

With AbsorberLine® MF, you don't have to compromise on aesthetics. The outer face of the mineral fibre infill is covered with black or white glass tissue as standard. Other colours may be available upon request. In addition, alternative facings can be applied to prevent the ingress of fuel, oil, lubricants, and other substances. AbsorberLine® MF achieves the perfect balance of functionality and visual appeal, our panels offer a wide range of colour choices using the RAL and Pantone colour chart systems for the steel casing and the exposed channel system option.

Durability, Impact Resistance and UV Stability.

AbsorberLine® MF panels are constructed to withstand mild to high levels of impact, making them ideal for areas where durability is crucial. The galvanised steel frame provides robustness and longevity, ensuring that the panels maintain their structural integrity over years to come.

NOTE: The black facing behind the perforations attained a rating of 5/5 following exposure to UV light for 250 and 500 hours, showing no discernible alteration in colour. After exposure for 750 and 1000 hours, it received a rating of 4/5, with no significant loss in depth but a slight reddening of the colour.

Product Description			Sound Absorption Coefficient (Tested to BS EN ISO 354:2003) Octave Bands (Hz)									Building Regulations Absorber Classification When tested to BS EN ISO 11654-1997
	Airgap	Depth	125	250	500	1k	2k	4k	5k	aw	NRC	
Absorber- Line MF	Direct	50mm	0.35	0.75	1.00	1.00	1.00	1.00	0.77	1.00	0.94	A
	Direct	100mm	0.65	1.00	1.00	1.00	1.00	1.00	0.84	1.00	1.00	A

EXTERNAL ACOUSTIC INFILL.
EnviroPhon® infill



ACOUSTIC PERFORMANCE

EnviroPhon® is a unique sound absorbing Polyethylene foam both suitable for internal use and external use. EnviroPhon® has a unique honeycomb cell structure however still its classed a closed cell foam, this cell structure allows the foam to all the benefits of a closed cell foam as well as being an excellent sound absorbing material. EnviroPhon® has the added benefit of being resistant to water and will not diminish in the presence of moisture.

SPECIFICATION

External UV resistant sound absorption foam Class A Absorption, with an SAA of 0.98

Versatile Applications for EnviroPhon® Acoustic Panels.

EnviroPhon® Acoustic Foam offers versatile applications across various industries and environments. Whether you need to reduce noise in offices, conference rooms, restaurants, theatres, swimming pools or manufacturing facilities, this foam is the perfect solution.

Sustainability and Environmental Consciousness.

EnviroPhon® Acoustic Panels prioritise sustainability and environmental consciousness. Constructed from eco-friendly materials, these acoustic foam sheets are designed to minimise impact on the environment. By choosing EnviroPhon® water resistant, sound absorbing acoustic foam, you're making a responsible choice that aligns with your commitment to sustainability.

Long-lasting Performance and Low Maintenance.

EnviroPhon® acoustic foam sheets are engineered for long lasting performance with minimal maintenance. EnviroPhon's unusual and durable construction ensures it retains its acoustic properties even in demanding environments. With EnviroPhon® acoustic foam, you can enjoy the benefits of effective noise reduction without the need of frequent upkeep.

Thickness (mm)	Height (mm)*	Width (mm)
20	2400	1200
30	2400	1200
40	2400	1200
50	2400	1200

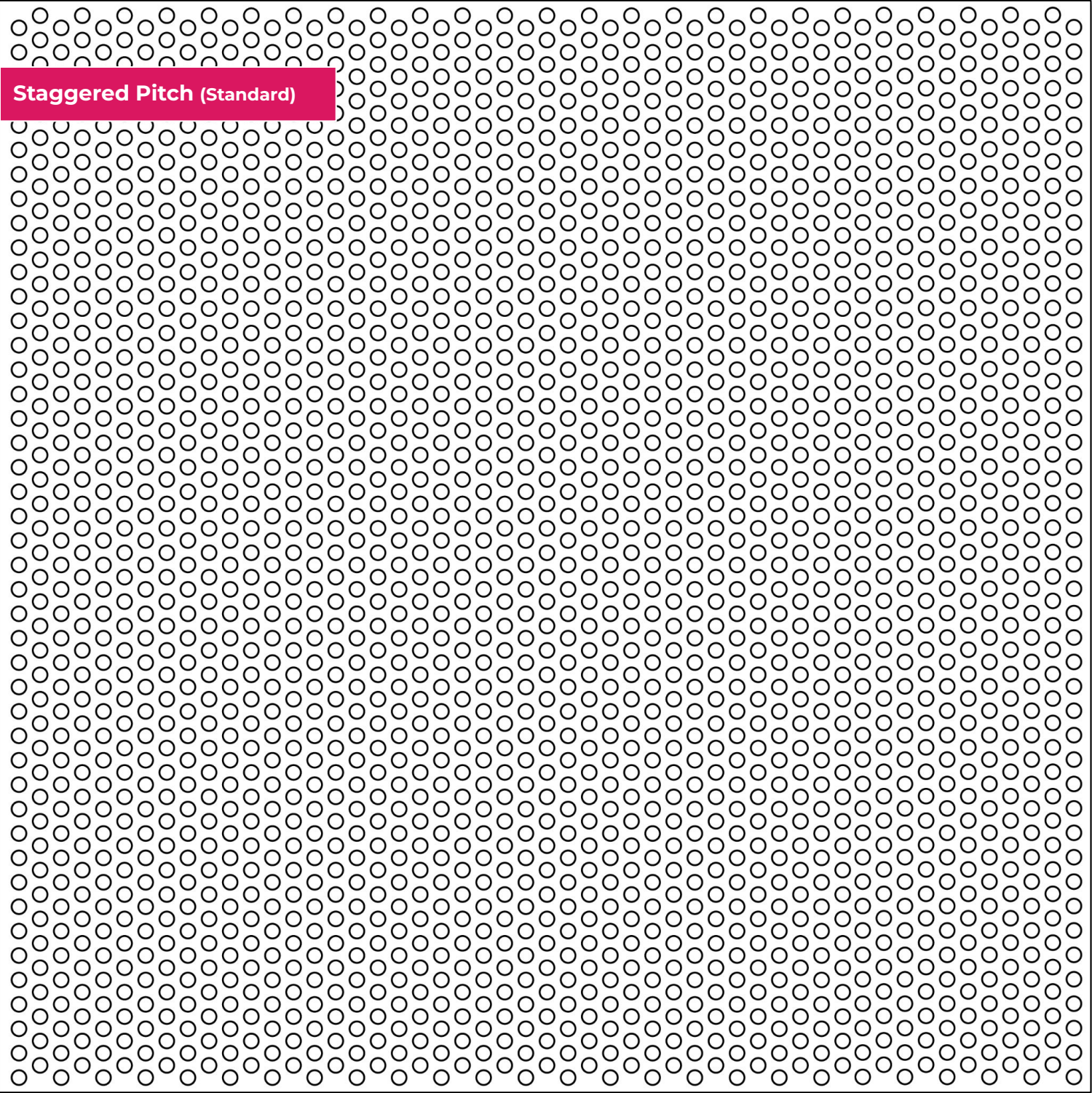
EnviroPhon®	Thickness (mm)	Sound Absorption Coefficient (tested to BS EN ISO 354) Octave Bands (Hz)								Building Regulations Absorber Classification When tested to BS EN ISO 11654-1997
		125	250	500	1k	2k	4k	αw	NRC	
Direct fix to substrate	20mm	0.05	0.18	0.71	1.07	0.96	0.91	0.50	0.75	D
Direct fix to substrate	40mm	0.06	0.51	0.99	1.08	1.05	0.84	0.90	0.90	A
Direct fix to substrate	50mm	0.16	0.69	0.99	1.09	1.09	0.91	1.00	1.00	A

PERFORATED METAL ACOUSTIC PANELS.

Perf Variations

POSSIBLE PERFORATION DESIGNS

NOTE:
Variations in perforation patterns do not impact the acoustic performance of AbsorberLine® MF or EV panel systems. Regardless of the specific design chosen, these panels will deliver the same acoustic performance as the standard perforated design displayed above. It's important to note that the perforations are solely for aesthetic purposes



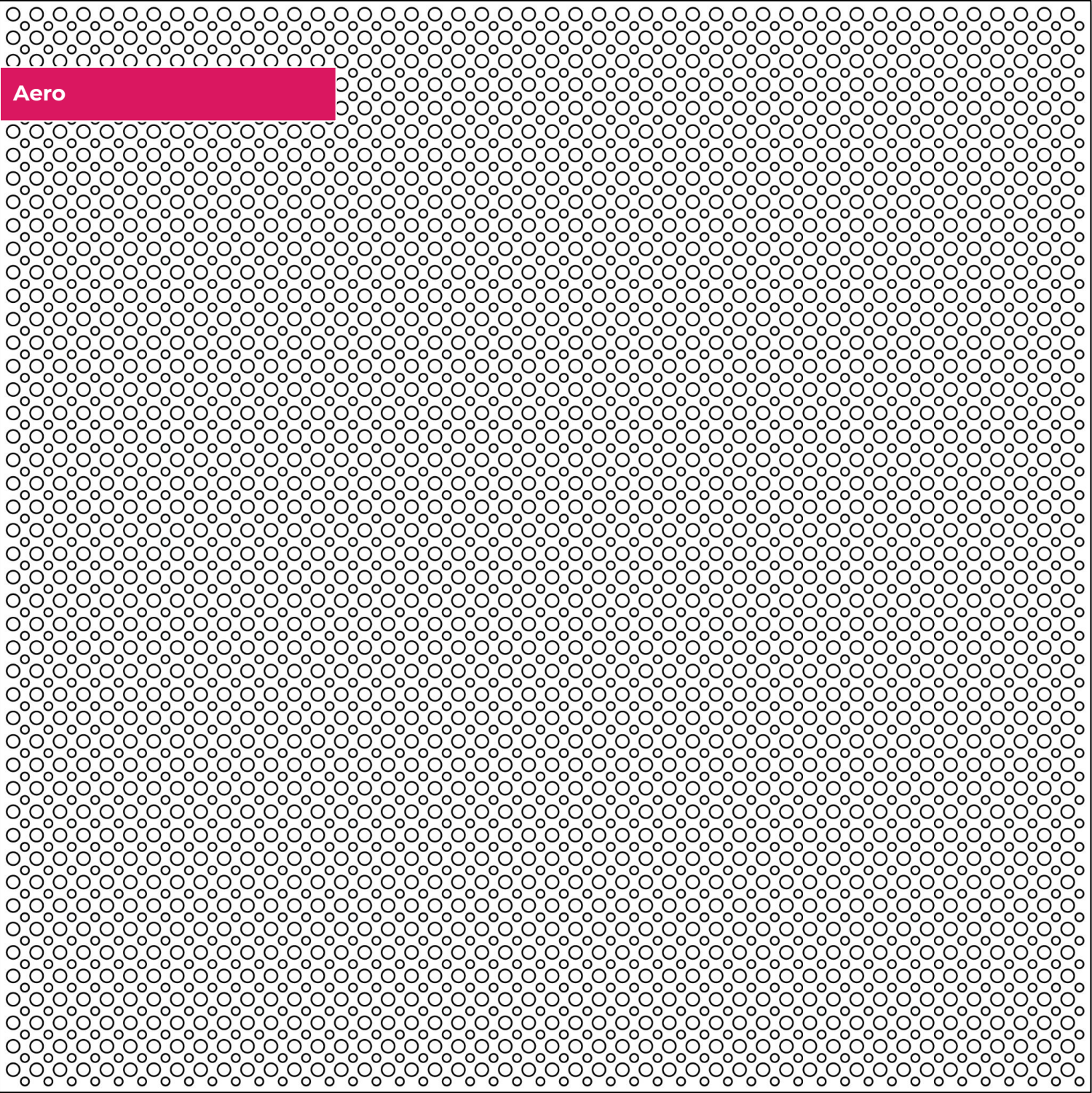
Thickness (mm)	Max Height (mm) *	Max Width (mm)
25	2500 - 3000	1100
50	2500 - 3000	1050

PERFORATED METAL ACOUSTIC PANELS.

Perf Variations

POSSIBLE PERFORATION DESIGNS

NOTE:
Variations in perforation patterns do not impact the acoustic performance of AbsorberLine® MF or EV panel systems. Regardless of the specific design chosen, these panels will deliver the same acoustic performance as the standard perforated design displayed above. It's important to note that the perforations are solely for aesthetic purposes



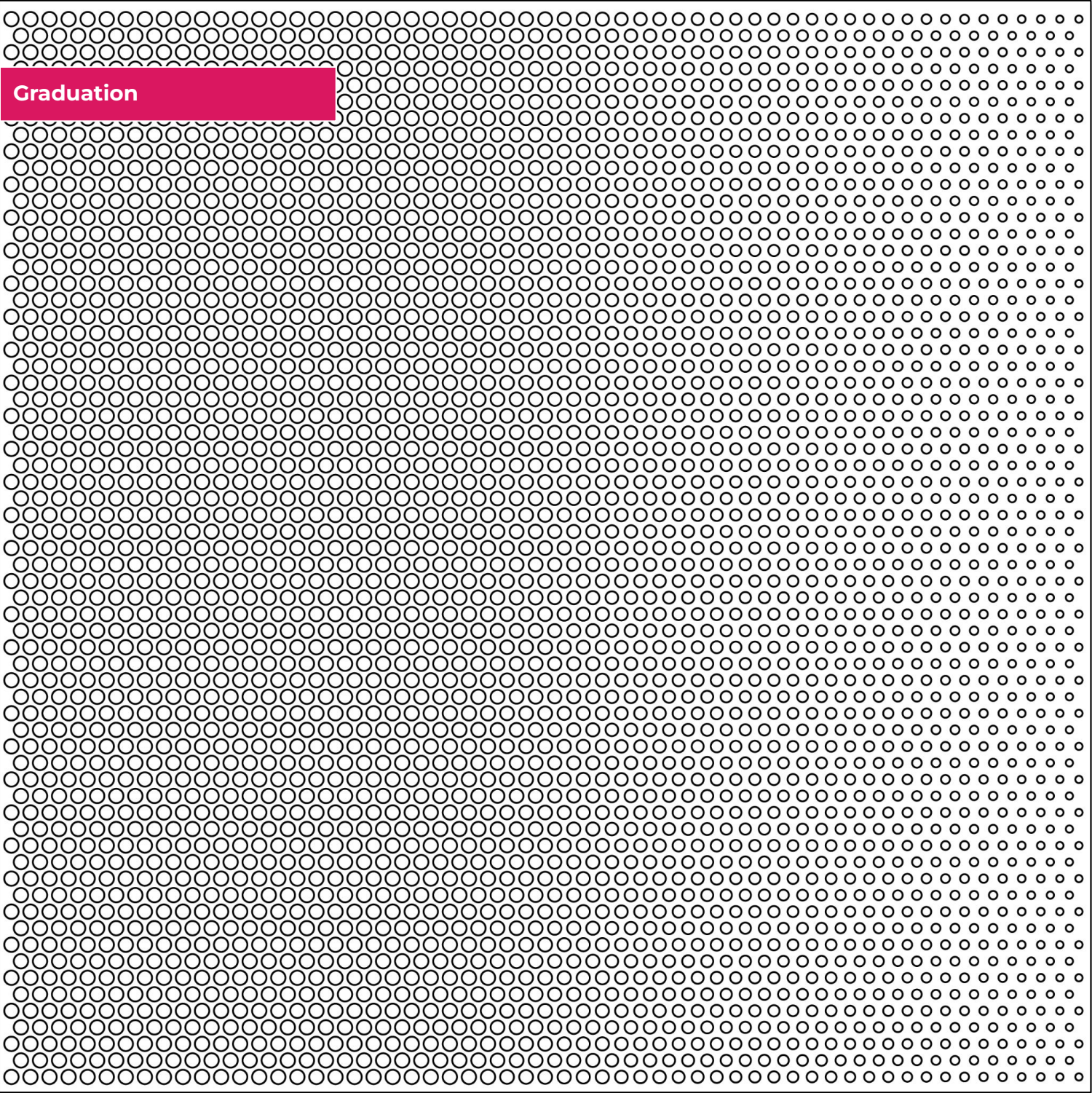
Thickness (mm)	Max Height (mm) *	Max Width (mm)
25	2500 - 3000	1100
50	2500 - 3000	1050

PERFORATED METAL ACOUSTIC PANELS.

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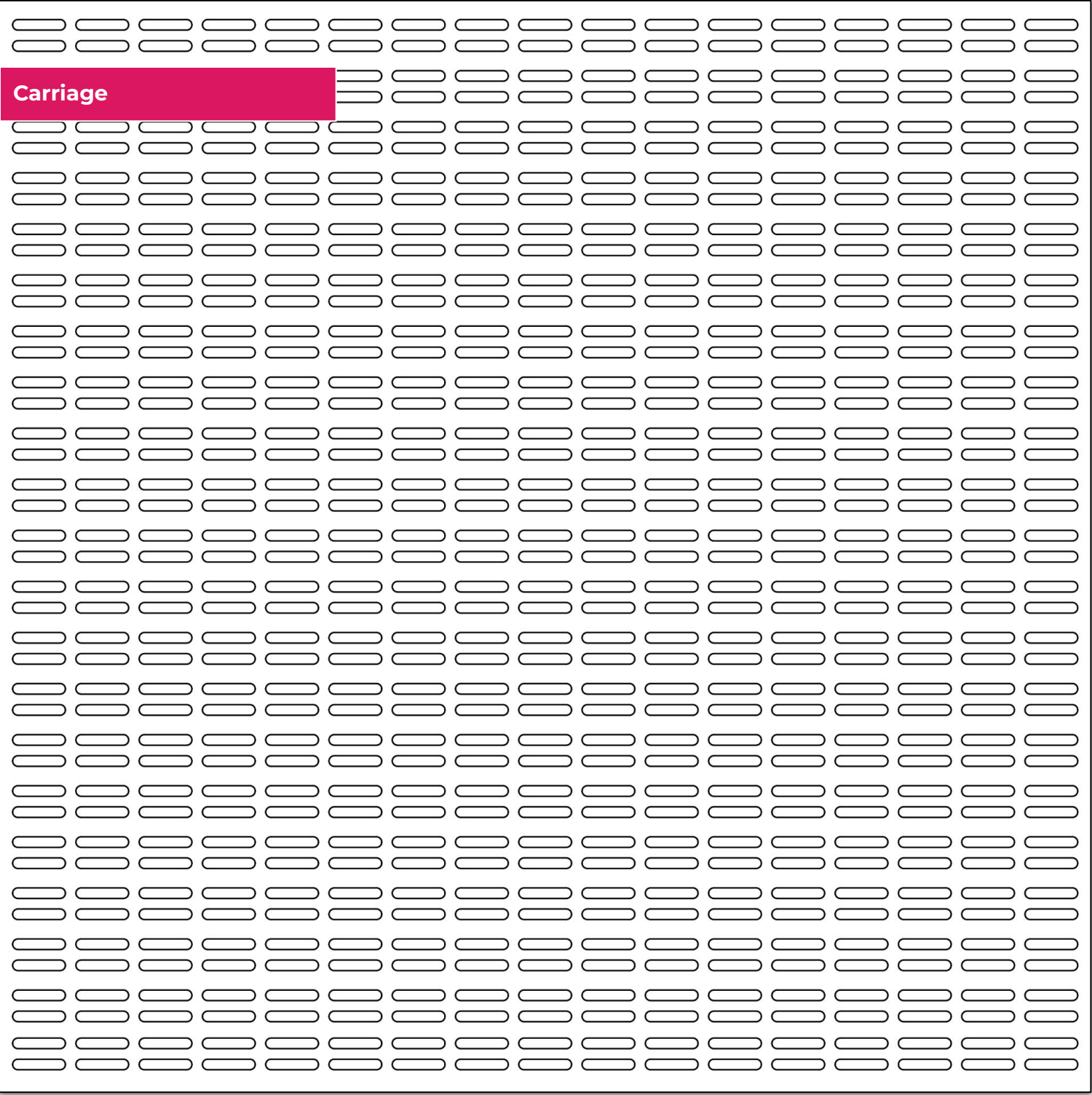
Thickness (mm)	Max Height (mm) *	Max Width (mm)
25	2500 - 3000	1100
50	2500 - 3000	1050

PERFORATED METAL ACOUSTIC PANELS.

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POSSIBLE PERFORATION DESIGNS

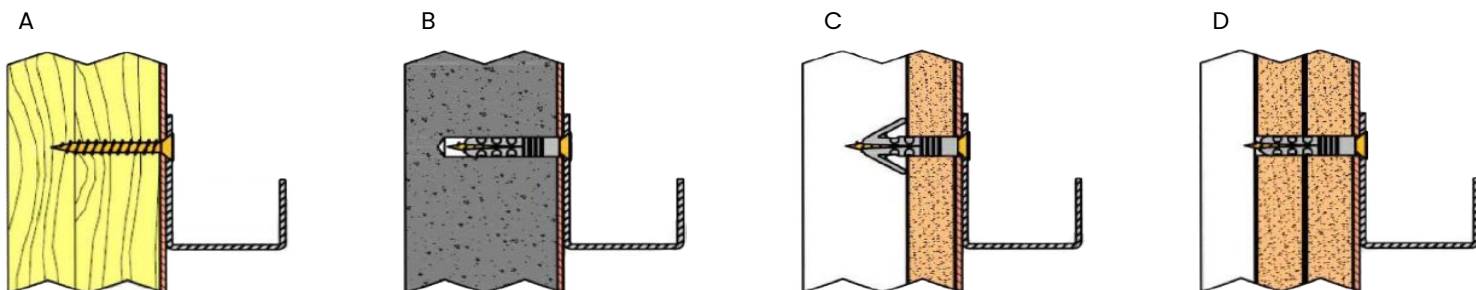


Thickness (mm)	Max Height (mm) *	Max Width (mm)
25	2500 - 3000	1100
50	2500 - 3000	1050

PERFORATED METAL ACOUSTIC PANELS.

Substructure

INSTALLATION OF CHANNEL SYSTEM



To begin your project, it's essential to make sure you have the right screws and rawl plugs that are suitable for the specific substrate mentioned earlier. Once you've gathered the correct fasteners, follow these steps:

Prepare Your Materials: Gather all the necessary tools and materials, including your chosen screws, rawl plugs, channels, and a reliable power drill.

Plan Your Layout: Before drilling any holes, carefully plan and mark the positions where you want to install the channels. Make sure the channels are level and appropriately spaced. This step ensures that your project will be aesthetically pleasing and functional.

Secure the Bottom Channel:

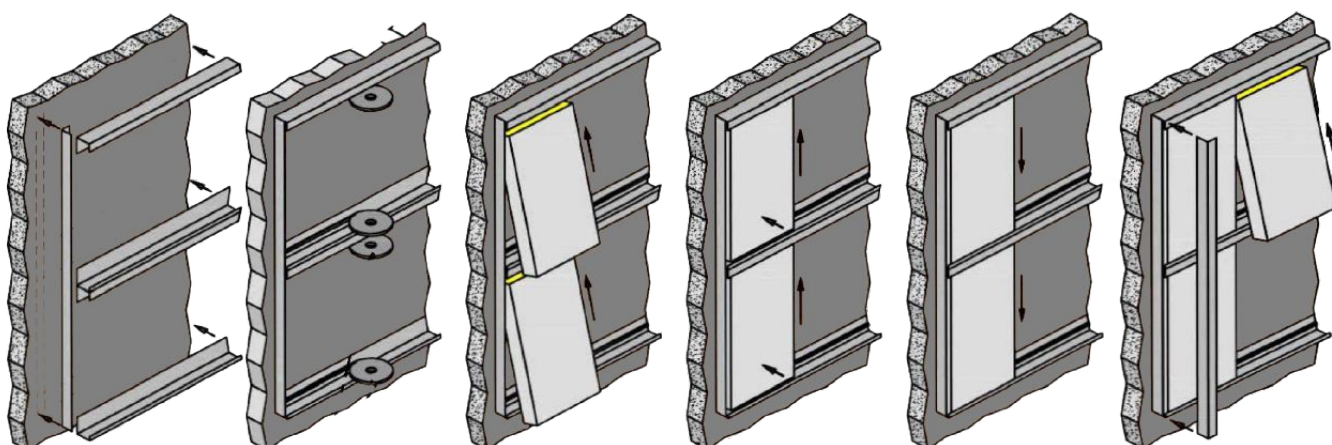
- Hold the bottom channel against the wall, aligning it with your marked positions.
- Use a level to ensure it's perfectly horizontal.
- When you're confident about the alignment, mark the holes for the screws on the wall through the holes in the channel.
- Carefully drill holes at the marked spots, ensuring you use the appropriate drill bit size for your rawl plugs (if required)
- Insert rawl plugs into the holes (if required)
- Place the bottom channel back against the wall and secure it by driving screws through the channel holes and into the rawl plugs (if required). Make sure it's firmly attached to the wall but avoid over tightening, which could damage the channel or wall.

Attach the Top Channel:

- Similarly, hold the top channel against the wall, aligning it with your marked positions.
- Use a level to ensure it's perfectly horizontal and parallel to the bottom channel.
- Once it's aligned, mark the holes for the screws on the wall through the holes in the top channel.
- Drill holes at the marked spots, ensuring you use the appropriate drill bit size for your rawl plugs (if required)
- Insert rawl plugs into the holes (if required)
- Place the top channel back against the wall and secure it by driving screws through the channel holes and into the rawl plugs(if required). Ensure it's firmly attached and level with the bottom channel.

Final Check and Adjustments:

- Double-check the alignment and levelness of both channels.
- Make any necessary adjustments to ensure they are perfectly parallel and at the desired height.
- Clean Up: Remove any excess dust or debris created during drilling.



CHANNEL SYSTEM, INSTALLATION OF PANELS.

Panel Installation

Once the channels are securely fixed in place, the next step is to seamlessly integrate the AbsorberLine® panels into your installation. Follow these steps to ensure a smooth fit:

Prepare the Panels: Ensure that your AbsorberLine® panels are clean and free from any dust or debris. This will help maintain their performance and appearance.

Position the First Panel:

- A. Begin with the first panel that you wish to install.
- B. Carefully lift the panel and align it with the upper channel. The upper channel should provide a secure slot for the panel.
- C. Slide the panel gently into the upper channel, ensuring it fits snugly. Make sure it is level and flush with the channel.

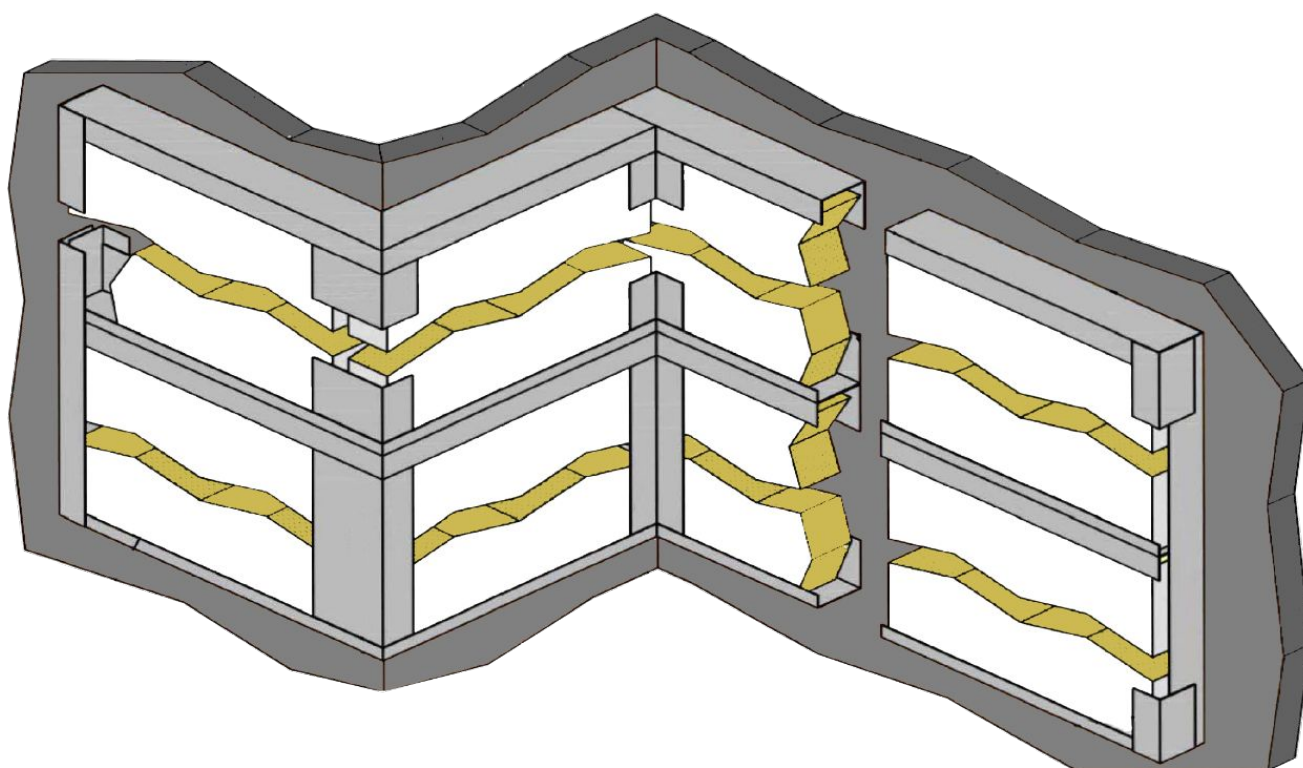
Secure the Panel in the Bottom Channel:

- A. Allow the panel to descend naturally into the bottom channel. This will provide a stable foundation for the panel.
- B. Ensure that the panel is properly seated within the bottom channel, and there are no gaps or misalignments.

Repeat for Additional Panels: If your project requires multiple panels, continue this process for each subsequent panel. Carefully slot each panel into the upper channel and let it drop into the bottom channel until your entire installation is complete.

Check Alignment and Spacing: Periodically step back and check the alignment and spacing of the panels. Adjust as needed to maintain a uniform and visually pleasing installation. Closing off angles (optional) may be used to add a framed look. Pop-rivets can be used to lock all panels into position if required.

1. CHANNEL SYSTEM AS STANDARD



MODULAR SYSTEM, INSTALLATION OF PANELS.

Panel Installation

A template is provided to mark out the location of each 'L' shaped angle bracket to the wall or ceiling substrate. Each bracket has a threaded insert to one leg only. Please ensure the threaded part is NOT fixed to the substrate as this is solely for the panels to secure to. The next step is to securely integrate the AbsorberLine® Modular panels into your installation. Follow these steps to ensure a smooth fit:

Prepare the Panels: Ensure that your AbsorberLine® panels are clean and free from any dust or debris. This will help maintain their performance and appearance.

Position the First Panel:

- A. Mark out panel location(s) with the provided template.
- B. Drill and fix each angle bracket securely keeping square and true. 4Nr angle brackets per panel.
- C. Begin with the first panel that you wish to install.
- D. Carefully lift the panel and align it with the angle brackets, these brackets should simply slide inside the Absorberline® panel.

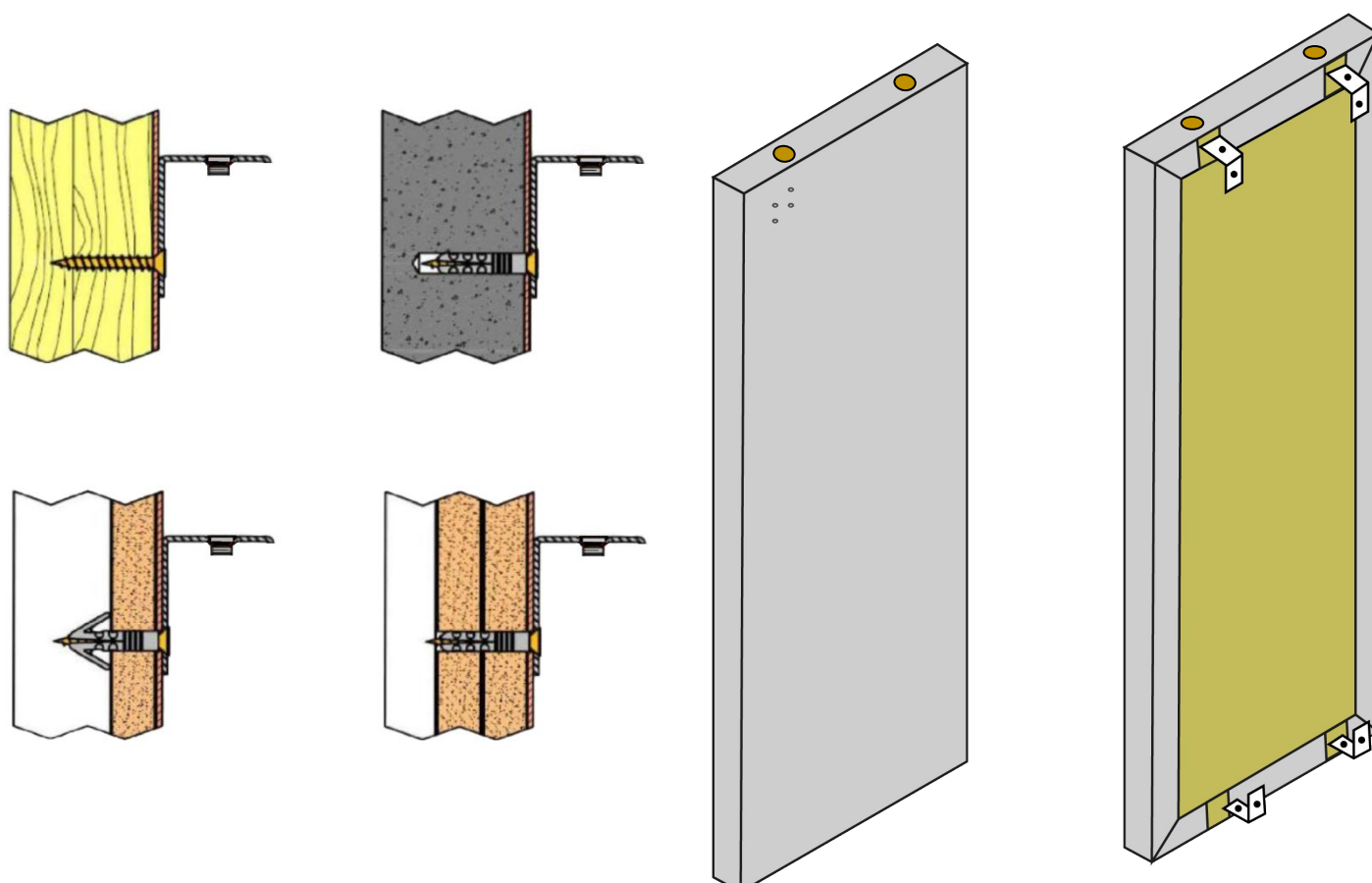
Secure the Panel in the Bottom Channel:

- A. Holding the panel firmly into position, locate and fasten the security bolts into position.
- B. Ensure that the panel is properly seated within the 'L' shaped brackets and there are no gaps or misalignments.

Repeat for Additional Panels: If your project requires multiple panels, continue this process for each subsequent panel. Using the temple provided, carefully align each panel onto each 'L' bracket configuration until your entire installation is complete.

Check Alignment and Spacing: Periodically step back and check the alignment and spacing of the panels. Adjust as needed to maintain a uniform and visually pleasing installation.

2. MODULAR PANEL WITH 'L' BRACKETS & SECURITY FIXINGS





AbsorberLine®

Perforated Metal Acoustic Panels