



Acoustek 
LIGHTING, OPUS ACOUSTIC
BLADES & PANELS COLLECTION



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About Acoustek \

With 40 years design/manufacturing experience within the commercial furniture industry, we have seen varied trends and created products relevant to designer requirements.

The grand epiphany of 'the open office,' which began its rampant spread through the majority of offices over a decade ago, gave birth to new design concepts. The 'industrial look' soon emerged within offices and restaurants complete with introduction of polished concrete floors and similar hard surfaces that reflected noise.

This radical shift against conventional private offices was certain to boost communication and improve workflow. The open plan restaurant allowed more seating and the industrial look was firmly embraced.

However despite the designers best intentions, the resultant increased reverberate noise. Lack of privacy and more uncontrolled interactions have all been associated with higher stress, diminished ability to concentrate and diminished productivity.

Conversation Friendly Restaurants' soon became a rarity which gave rise to further studies on the effects noise has upon us.

Tests done by Russell Keast (Associate Professor of Food and Sensory Science - Deakin University) proved that:

- Significant levels of background noise. Reduce a patrons ability to detect flavour.
- Difficulty conversing and ordering also hinders positive experience causing frustration for clients and staff alike.

In essence, those cutting edge polished concrete floors, exposed brick or tiled walls all look excellent but are more 'visual experience focused' than 'quiet and content' productivity, or enjoyable ambient dining experience.

Our range of acoustic products were designed to combat reverberate noise. Our acoustic wall tiles will absorb up to 85% of reverberate noise and provide aesthetically pleasing designs with which to decorate or 'face lift' any area, their added benefit of noise attenuation makes them a 'sound investment'.

Fact

After bad service, restaurant noise is the most common dining complaint.





Why Acoustek Treatment \

Introducing an acoustic screen or barrier between a noise source and an individual will reduce the noise by an average of 8dB, yet the human ear perceives 50% noise reduction.

Noise. An irritant, a pollutant, a health hazard, yet accepted by many as 'normal'.

A good acoustic office environment can:

- Increase motivation by 60%
- Increase complex task efficiency by 50%
- Increase problem solving by 20%
- Lower adrenaline levels by 30%

Reverberate noise - an infinite number of sound reflections that will keep the 'source sound' audible for a short period of time.

Hard surfaces will reflect the sound more and bounce the noise wave back to meet its source, whereby it then joins the second wave of noise transmission and subsequently a third etc.

If enough surfaces produce strong audible reflections, persons within that environment will be bombarded with several versions of each noise emitted with each version only slightly delayed in time relative to the previous wave noise.

The latter is evident in many restaurants where the assault on ears can vary from chairs scraping floors, foot steps on hard surfaces, but more often general conversation where individual volume tends to increase relevant to the interfering sound reverberation, thereby contributing to the further mayhem.

Such mayhem propagates into an unhealthy auditory sphere formation bombarding the ears and all manner of other sensory perceptions.

Fact

70% of office workers say they could be more productive in a less noisy environment and 72% of office workers are dissatisfied with their speech privacy.



Environmental Benefits

Acoustek Lighting, 3D Tiles, Beams and Acoustic Screens are manufactured from thermally bonded polyester fibre with a minimum of 60% recycled fibre content from PET packaging such as empty drink bottles.

- Products with recycled content reduce greenhouse gas emissions.
- High reusable potential.
- The products are 100% recyclable.
- Volatile organic compounds (VOCs) generated in the manufacturing process is classified as low (0.01 mg/m³).
- No ozone-depleting gases are used during the manufacturing process.
- No red list chemicals are present.
- Safe, non-irritant, non-toxic, and non-allergenic.



Sustainable Design

All Acoustek Lighting Solutions are available as hard or soft-wired, and comply with AS/NZ UK/EU standards.

Acoustek 3D Tiles are certified GreenTagCert™ GreenRate Level A.

Suitable for use in Green Star™ projects. GreenTagCert™ is a certification and rating tool for building professionals approved by the Green Building Council of Australia (GBCAPhysical).

AS standards and BS standards:

AS 1530.3, AS 3837, BS 476

Tile Description And Properties

Melting point: 250°C

Vapour pressure: Not applicable

Volatiles: Nil

Flash point: None allocated

Other properties: Non-allergenic, low irritant, low flame response, resilient

Ingredients: Organic, long chain synthetic polymers

Max service temp: 110°C

Alkalinity: pH 7.8 (pH 7 is neutral)

Moisture Absorption: Exposure to an atmosphere of 50°C and 95% RH for four days gives moisture absorption of less than 0.2% by volume

Fire Hazard Properties: The following results were obtained when subjected to early fire hazard testing in accordance with Australian Standards AS 1530.3

Ignitability | 7

Spread of Flame | 0

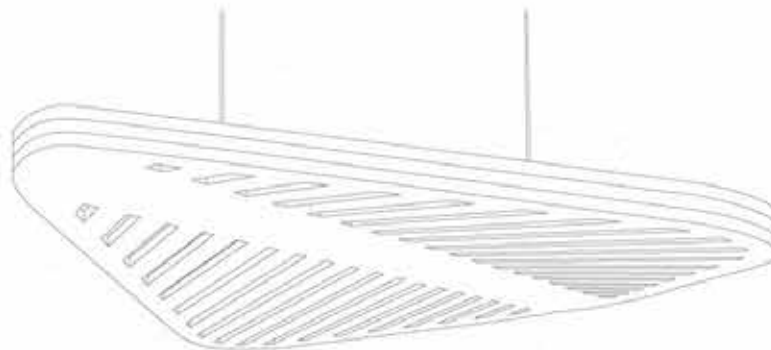
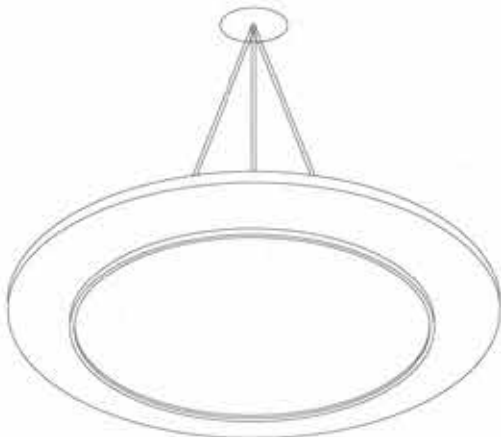
Smoke Developed | 5

Heat Evolved | 2

Why Acoustic Lighting

As previously mentioned, Introducing an acoustic screen or barrier between a noise source and an individual will reduce the noise by an average of 8dB, yet the human ear perceives 50% noise reduction. However with the predominance of glass walls and open space, where & how can an acoustic barrier be located without detracting from the original design intention.

Lighting is the overlooked and obvious choice, as lighting is essential to most spaces, a decorative and acoustically effective light fitting with relevant NRC rating will solve most open plan reverberate noise issues.



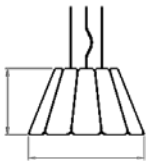


Petal Acoustic Shade \

Health and well being is important to most, consider then constant exposure to a noise level above 70dB actually 'kills the ear's hair cells' - premature deafness being the result, yet restaurants commonly hover around 85dB, the workplace incurs it's own issues.

In essence all areas have their needs for acoustic consideration - incorporating this with Lighting becomes a 'Sound Idea'.

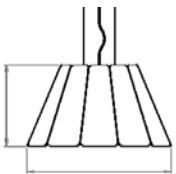
Size Options



M

h: 420mm

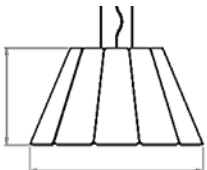
w: 750mm



L

h: 520mm

w: 930mm



XL

h: 620mm

w: 1115mm





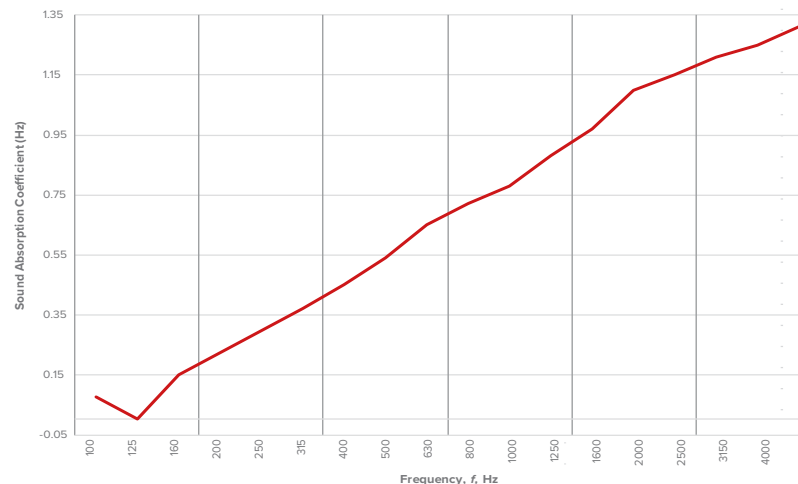
Performance Example

A typical boardroom measuring 4.2m x 4.8m x 2.7m with carpet flooring and plasterboard/ ceiling & wall surfaces plus Glazing.

- Occupied room reverberation time will be 1.1 seconds.
- Target reverberation 0.6 to 0.8 seconds (as per AS2107:2016)

An addition of 3 - 7 Sabines at each middle frequencies (500Hz-1000Hz) will result in **new reverberation time within the target range of 0.6 to 0.8.**

Achieved with 2 x Petal Shades (XL or L) or 3 x Petal Shades (M)



FREQUENCY	SAC	OCT
100	0.07	0.07
125	0.00	
160	0.15	
200	0.22	0.30
250	0.30	
315	0.37	
400	0.45	0.55
500	0.54	
630	0.65	
800	0.72	0.79
1000	0.78	
1250	0.88	
1600	0.97	1.07
2000	1.10	
2500	1.15	
3150	1.21	1.26
4000	1.25	
5000	1.31	
NRC	NRC 0.70	
Alpha	0.55 (MH)	
SAC	D	

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.

Vortex Shade \

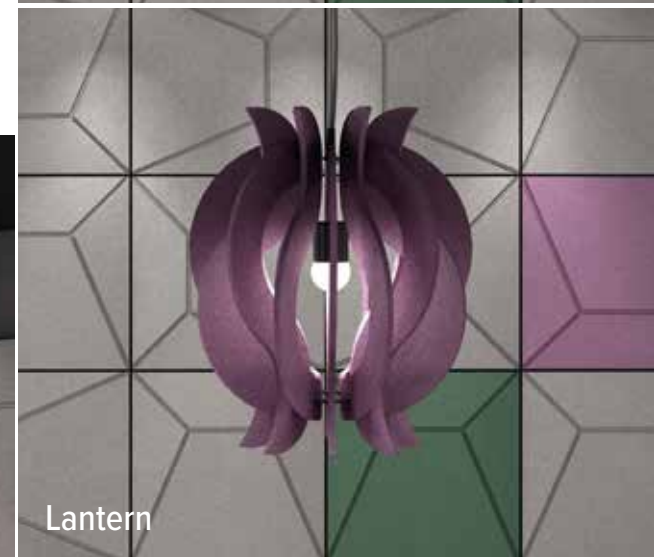
A designer pendant, this feature pendant offers 3 x assembly options to create your own preferred ceiling statement or feature suspended within an atrium. Consider combining Vortex suspended from an Alto Raft. This will not only provide a decorative statement but absorb excess sound reverberation, perhaps also consider integration with biophilic design.

Shade Versions

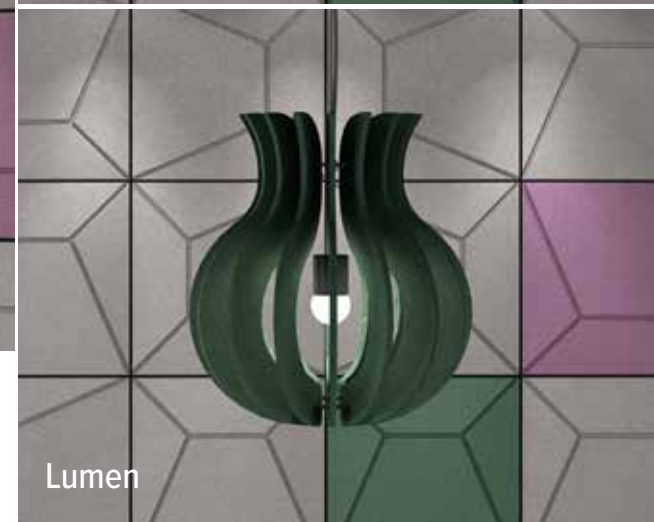
Lumen	Lantern	Luftballon
h: 450mm	h: 520mm	h: 450mm
w: 480mm	w: 480mm	w: 480mm



Luftballon



Lantern



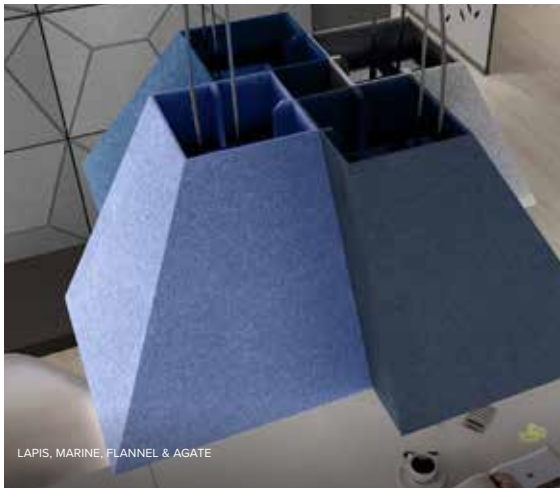
Lumen

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.

Pyramid Enclave

Being 4 x offset lights each within their own pyramid, this light maximises its use of acoustic material to achieve optimum acoustic and light control. Ideal over a boardroom or meeting table the introduction of this light will enhance the aesthetics and NRC performance of every room.

Shade Dimensions



h: 350mm

w: 1000mm

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.



Pyramid & Pyramid Extension \

Aesthetically pleasing as a single Pyramid pendant light with acoustic solution, this modular PET pendant can be extended in 300mm increments to a size of choice being perfect over multiple desks or conference tables. PET acoustic material is 60% recycled and 100% recyclable, offering sustainable solutions for acoustic improvement.

Shade Size



Pyramid

h: 400mm

w: 600mm

Pyramid Extension

h: 400mm

w: 900mm to 1800mm

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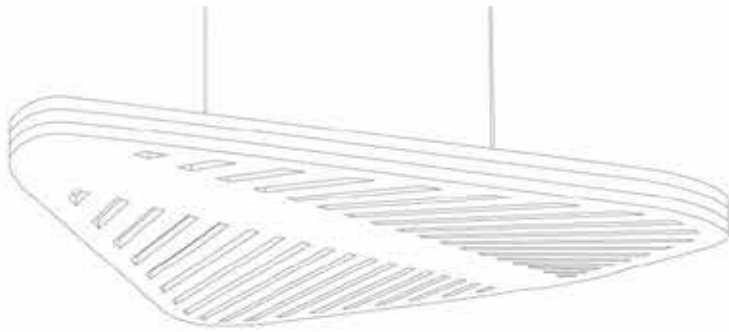


Pyramid Extension

Jet \

As the name suggests, a more futuristic almost aeronautical flavour to lighting designed to provide further interest to any area.

Shade Size



h: 800mm

w: 800mm

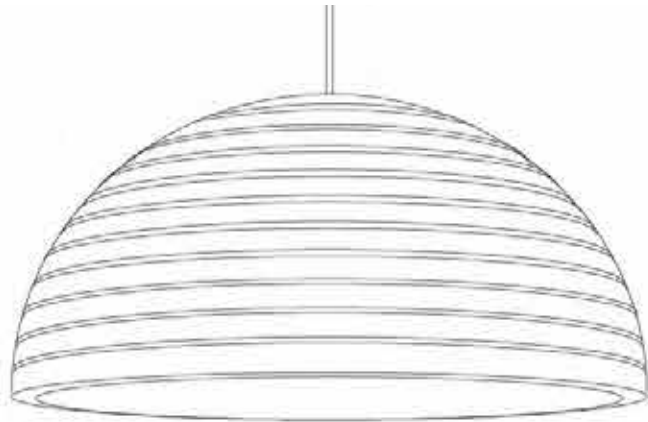
Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.



Hive \

A favourite to suit any area, the bespoke and unique design of this pattern - plus your colour choice makes this unit a complementary and stand out addition.

Shade Size



Large

w: 860mm

h: 400mm

Small

w: 600mm

h: 400mm

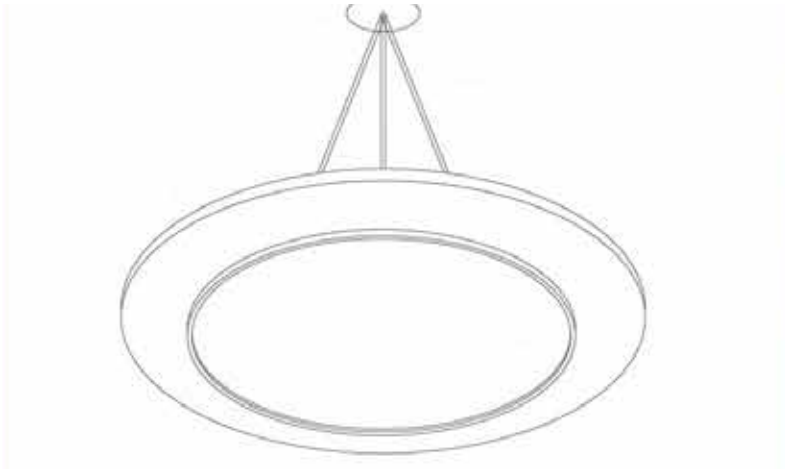
Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.



Hover \

A 'flying saucer' enhanced by slimline LED light, this large diameter shade creates a localised ambience to suit individual needs. The bespoke and unique design of this pattern, plus individual choice of colour makes this unit a complementary and stand out addition.

Shade Size



h: 33mm

w: 1200mm

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.



Opus Acoustic Blades \

The varied patterns of our Opus range are collated and suspended from our ® Opus extrusion. The 2 extrusions being inserted into each blade also have the option of LED lighting, allowing light dispersion between each blade.

The blades perform extremely well acoustically, as a light source and with room heat dissipation. The heat flows upwards past the blades whilst reverberate noise is intercepted within the absorptive surface area of blades.

All blades have been engineered and designed to absorb distinctive harmonised sounds, producing NRC ratings from 0.7 to 0.95 – depending on blade size and spacings – this means absorbing between 70% to 95% of reverberate noise.”





Adagio Blades with
Diffuse and Celano
Acoustic Tiles

Opus Vibrato Plus Blades



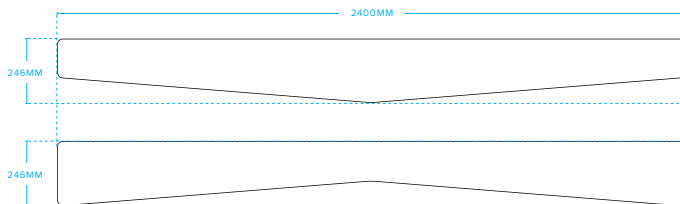
The alternating Vibrato blade shapes suspended from the ceiling provide extra design flair, this design has more complexity and interest, a great feature for any boardroom.

Vibrato has 2 opposing angled blades cut from proven acoustic material with minimum NRC 0.65, this being calculated on single side of the sheet being exposed. We cut the sheet and position as blades, thereby increasing the surface area - every surface of the board is now exposed.

Upgrade from our standard Vibrato blades we add one extra blade plus 4 x Baffles between each blade, this increase the the noise attenuation to NRC 0.95 - absorbing up to 95% of reverberate noise.



Blade Dimensions



Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.





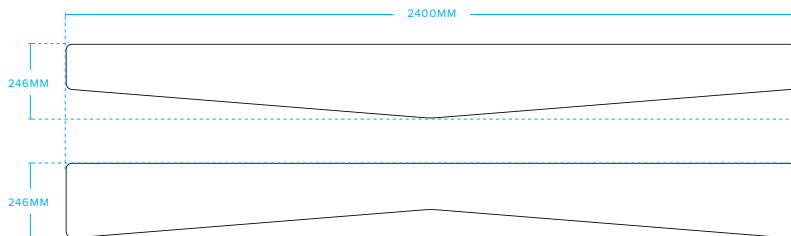
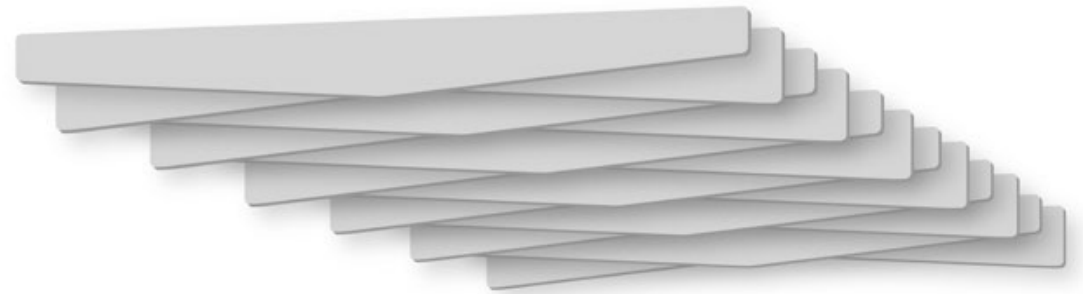
Opus Adagio \

Adagio has a more gentle flowing contour, aesthetic appeal is very subjective but this simple contour has individuality that combines well with the Diffuse acoustic wall tiles that also greatly improves NRC ratings. Adagio blades are shaped from 150mm to 198mm - forming an easy contour.



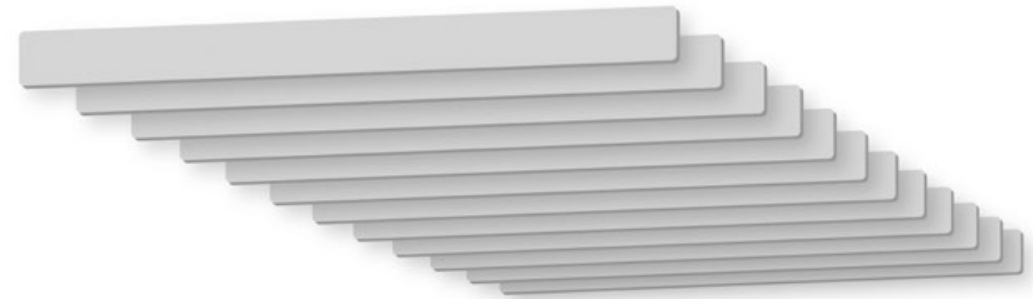
Opus Vibrato \

The alternating Vibrato blade shapes suspended from the ceiling provide extra design flair, this design has more complexity and interest, a great feature for any boardroom. Vibrato has 2 opposing angled blades cut from proven acoustic material this standard shape blade does not employ the additional Baffles as per Vibrato Plus but still gives respectable acoustic performance



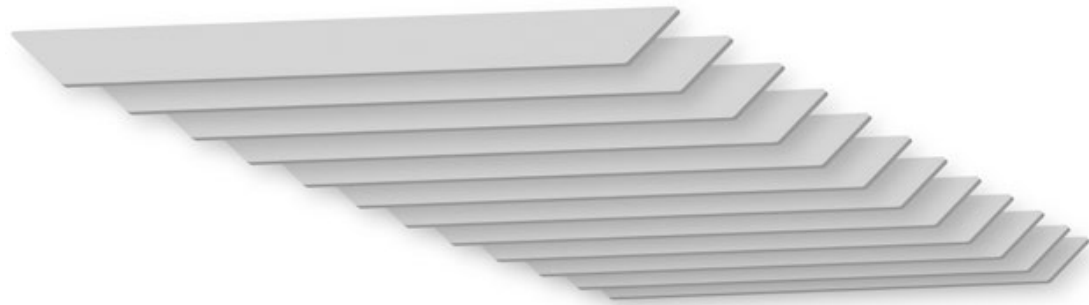
Opus Tempo \

A parallel blade design, this product will enhance any room whilst curing it's reverberate noise issues, choose a colour or lighting to also enhance any decor. Tempo blades are parallel cut from proven acoustic material with minimum NRC 0.65, this being calculated on single side of the sheet being exposed. We cut the sheet into blades, thereby increasing the surface area - every surface of the board is now exposed. Depending upon blade spacings we can achieve up to NRC 0.90 - absorb up to 90% of reverberate noise.



Opus Sonata \

The design change of a 45 degree angle terminating the end of each blade gives more individuality, the acoustic performance remains constant, a detailed difference for the discerning.



Opus V Blades \

Standard

Designed to use 12mm acoustic material but using the 'monocoque principal' of shaping the substrate to increase surface area and shape, this will in turn increase the products NRC rating

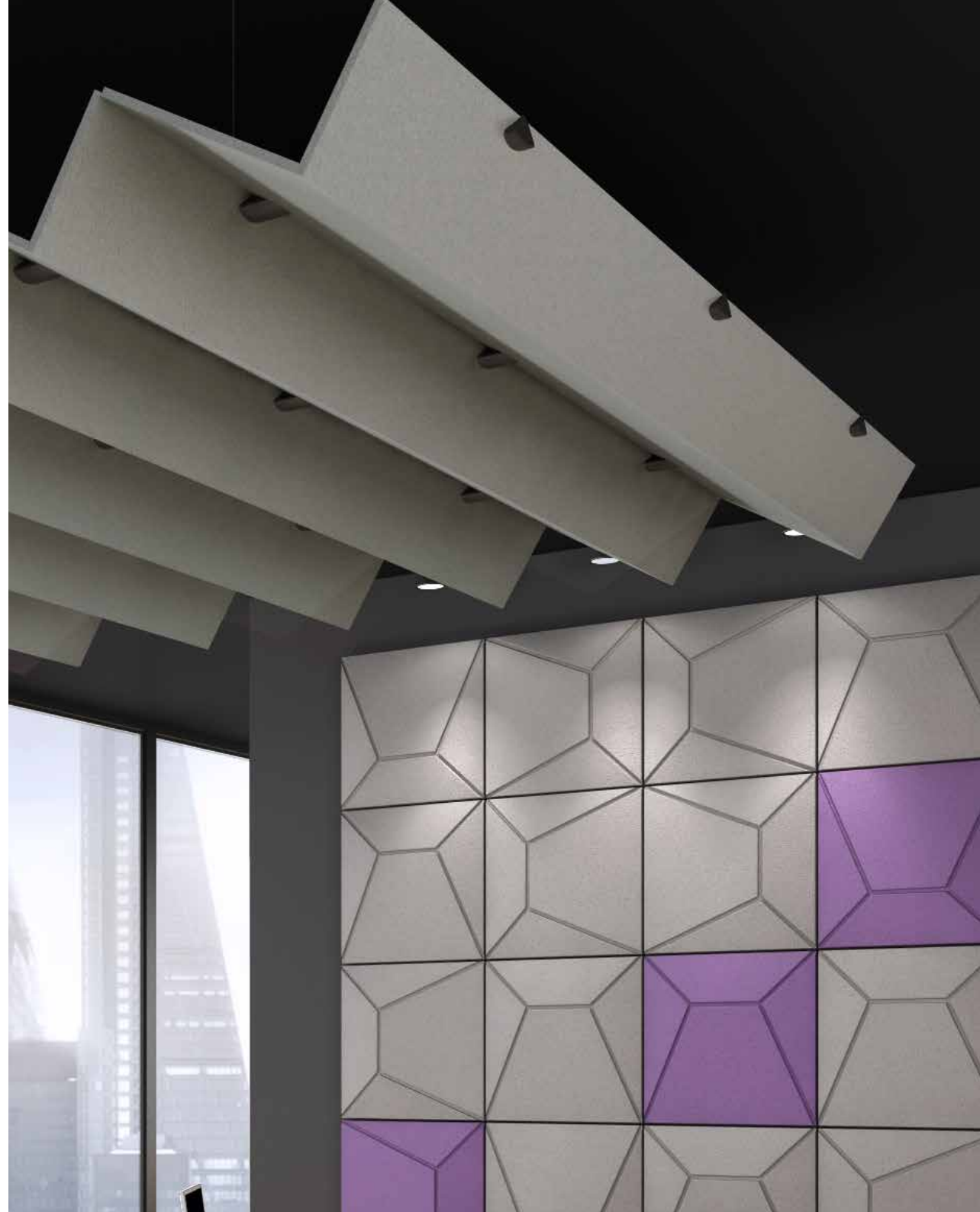
Each 'V' module is 400mm width and fits into the 2400 x 2400 standard Opus suspension design. Alternative size and colour choices are available with suspension of Acoustek lighting between blades a great option.

Standard Sizing



h: 200mm
w: 400mm

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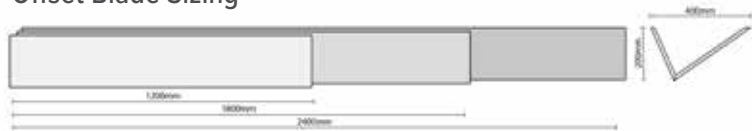


Opus V Blades \

Frequency

Frequency was designed to fit within the same V blade size module but offer the option of different sized legs to provide yet further design flair, the opposing blades as illustrated provide the 'Frequency' look, utilise the same adjacent blade positioning will provide an attractive saw tooth effect.

Offset Blade Sizing



h: 200mm
w: 400mm

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.



Pergola

Acoustic Beams perform extremely well both acoustically and with room heat dissipation. The heat flows upwards past the beams whilst the sound is absorbed by the acoustic medium.

The inclusion of LED lighting under the beam as required gives the added bonus of illumination of the localised area in focus.



Beam Height Options: 200mm, 300mm, 400mm or 600mm

Beam Length Options: 1200mm, 1800mm or 2400mm

LED option with all sizes or plain acoustic Beam



Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.



LightBeam \

Great solution to control spaces with high indices of reverberation, this larger individual Beam with integral linear light offers a sustainable solution for both acoustic and lighting improvement.

LightBeam may be suspended individually or collated in groups of desired spacing as per advice from your acoustic engineer, with suspension via Acoustek's 'Latitude extrusion'.

The Biophillic convertabiliy of LightBeam and Opus Blades, is one to consider for both ambience and acoustics.

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.





Alto Curve \

A variation of suspended panels with a gentle curve to enhance the acoustic performance, LED light option for all sizes.



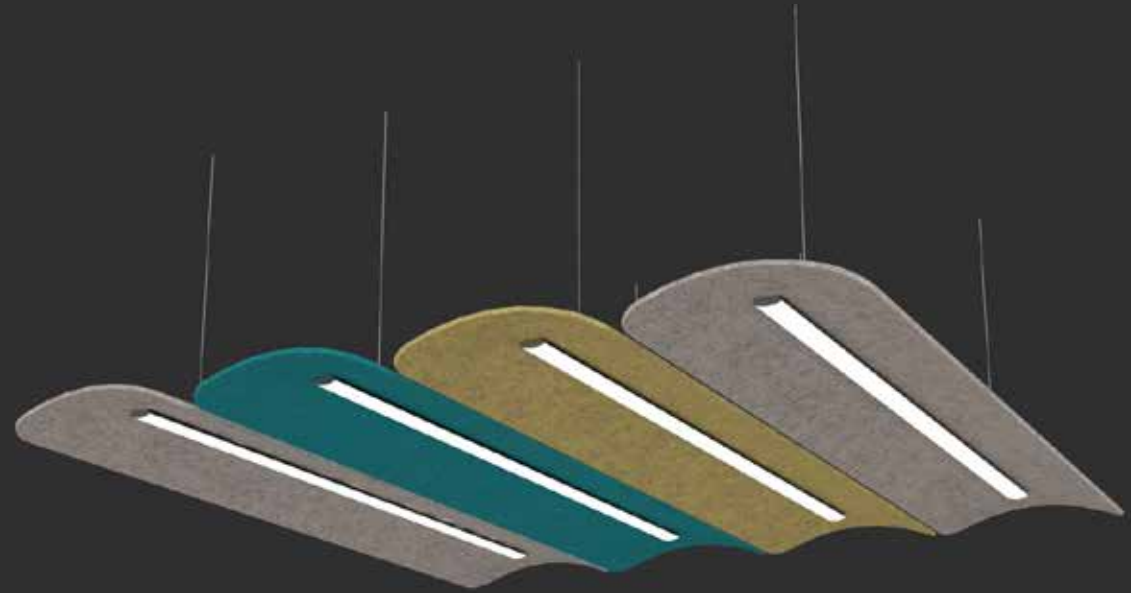
Size Options

2400 x 600 x 9mm

1800 x 600 x 9mm

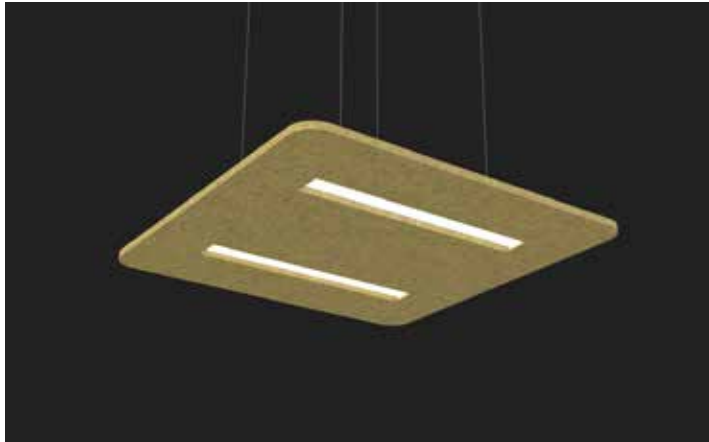
1200 x 600 x 9mm

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.



Alto \

Acoustek's suspended panel range with a choice of size and positioning option of LED lighting.



Size Options

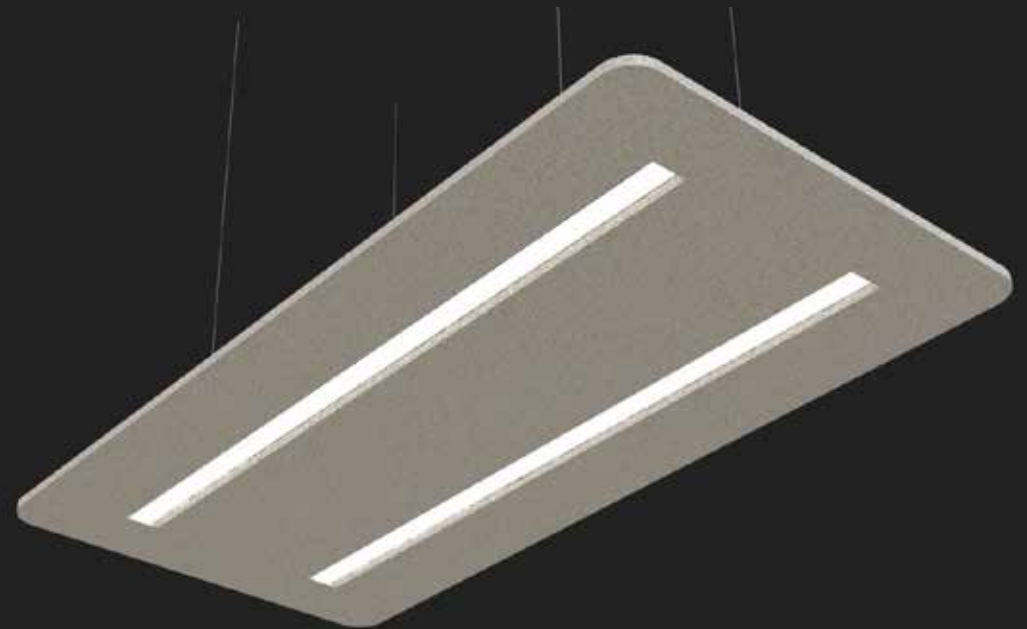
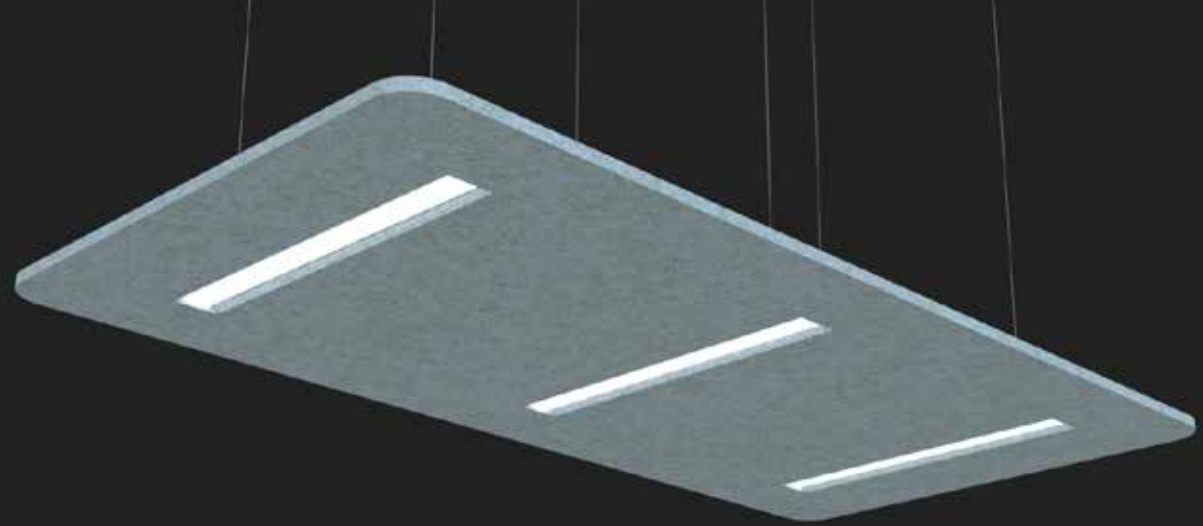
1200 x 1200 x 24mm

1800 x 1200 x 24mm

2400 x 1200 x 24mm

1800 x 3600 x 24mm

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.



Pastorale Collection



The concept of Pastorale is the suspension of Acoustic panels to:

- Improve the privacy aspect of a space.
- Reduce the irritation of noise.
- Introduce a decorative divider aimed at improving acoustics and aesthetics of any restaurant or workplace.
- All whilst occupying minimal space.

Each pattern has a subtle 3 dimensional option of raising but not removing each specific pattern, this increases surface area absorption and visual difference. Remove the pattern inserts as preferred from the hanging panel and visual access/ light is allowed to penetrate as needed.

Suspend a contrasting pattern or plain coloured panel behind your chosen pattern to give more impact and more even acoustic benefit.

Design your own pattern, Logo or corporate message to be conveyed, along with your preferred acoustic functioning, choose your own colour option and resultant bespoke interior achieves the ambience desired.

Panel size: 2400 x 1200

Check our website for layout suggestions and install instructions. Combine colours to create even more individuality. Download our product spec sheet to show product options.





Autumn



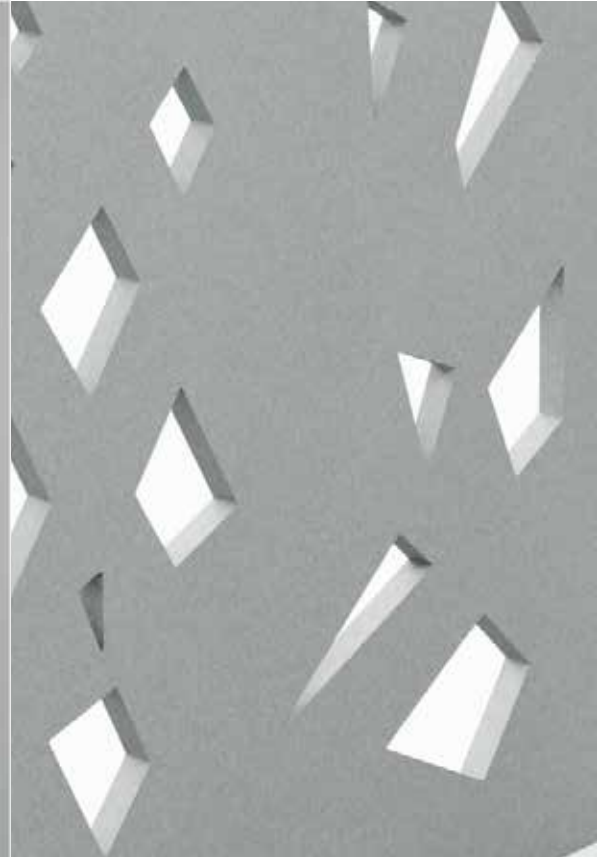
Fleur De Lis



Migration



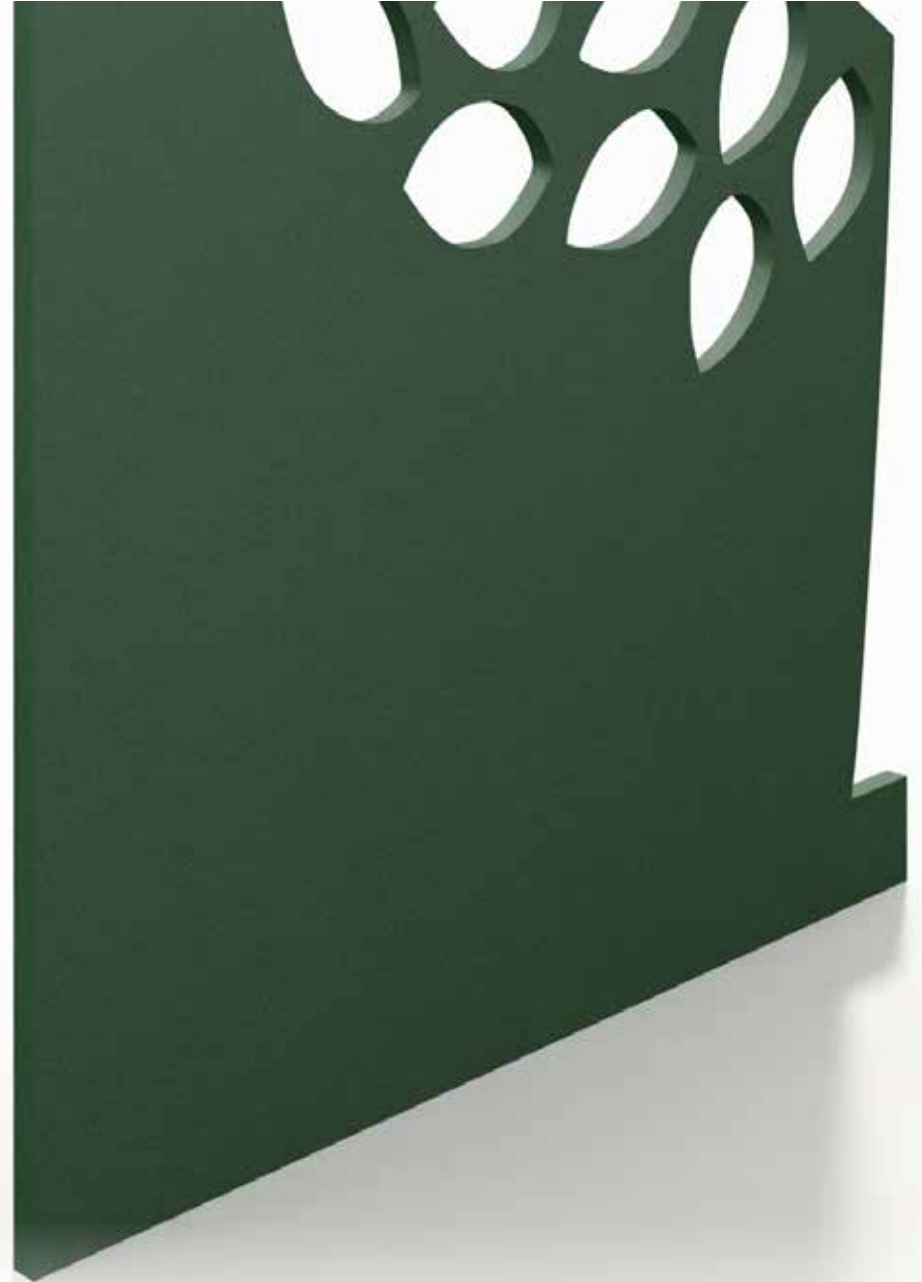
Glass



Survey



Tree of Life





Acoustic Decorative Finishes \



RUBY



APPLE



AMAZONITE



AUBERGINE



AGATE



LAPIS



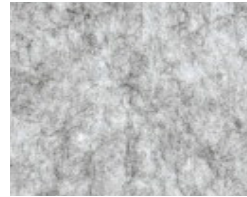
MARINE



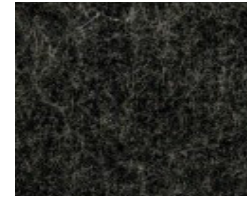
AQUA



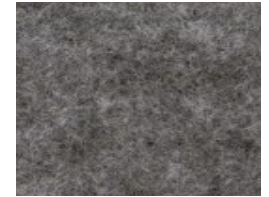
FLANNEL



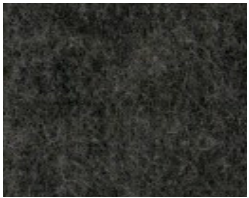
SCHIST



CHARCOAL



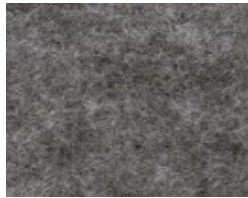
SLATE



WHETSTONE



EBONY



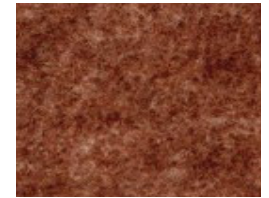
GRANITE



PEBBLE



BISCUIT



DULSE



MULBERRY



MOSS



PUMICE





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* Tolerance in Size: Length +/- 5mm; Width +/- 5mm; Depth +/- 2mm.

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