

# Ecooustic® Panels + Screens

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Specifiers Guide - Acoustic Products



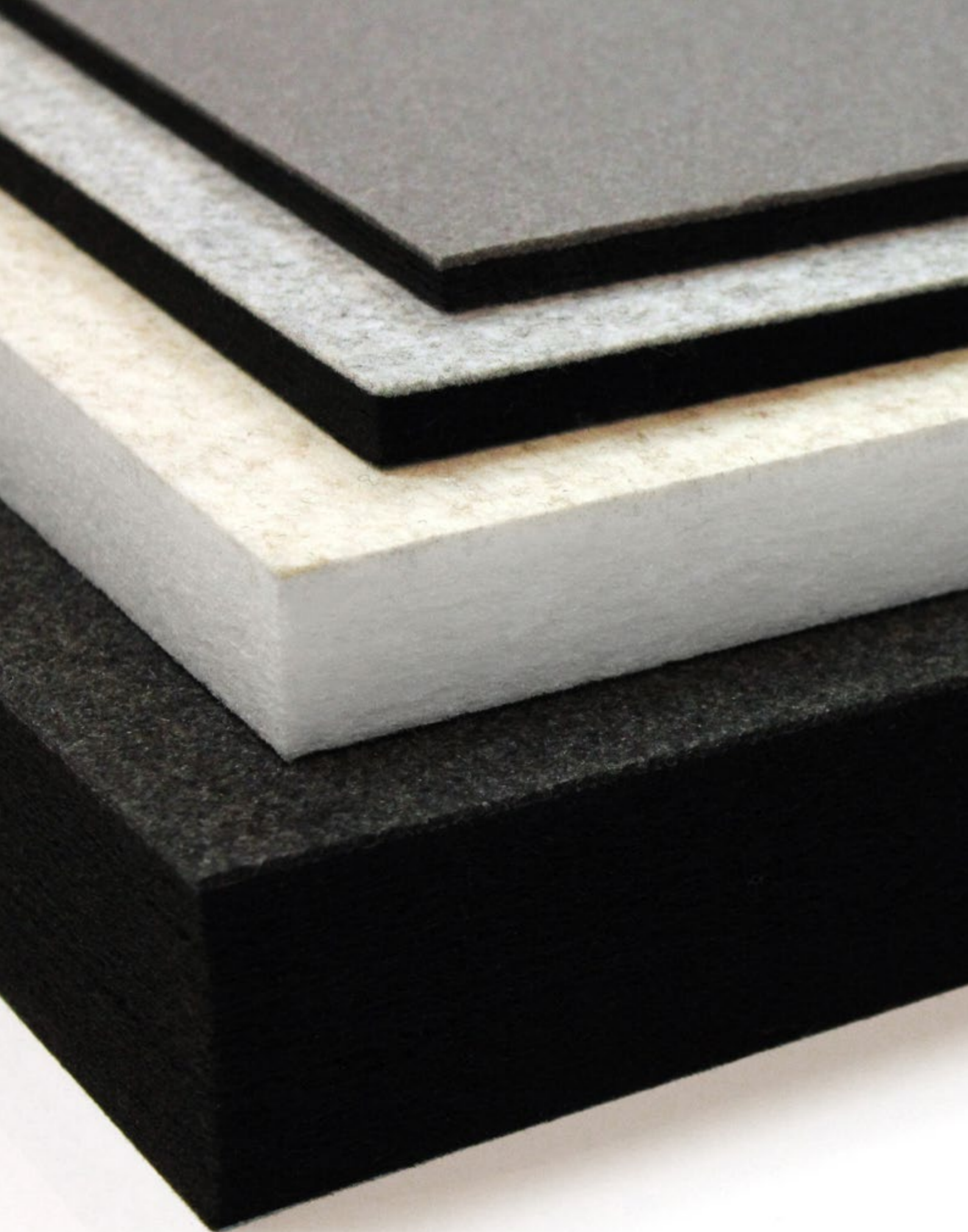


Ecoustic® Panel  
Compulsive Productions by Matt Gibson Design + Architecture  
Photography: Shannon McGrath

# PANELS + SCREENS

Ecoustic® Panel  
Ecoustic® Velour Panel  
Ecoustic® SC Panel  
Ecoustic® V Panel  
Ecoustic® Duo  
Ecoustic® Edging  
Ecoustic® T Trim  
Ecoustic® Screen  
Ecoustic® Workstation SC Prints  
Ecoustic® Soffit

# Ecooustic® Panel



**Description** Elegant acoustic panels with a white or black core detail available in four sound absorbing thicknesses, 8mm, 13.5mm and high-performing 25mm + 50mm

**Composition** 100% PET (up to 65% recycled PET)

**Thickness** 8mm, 13.5mm, 25mm, 50mm (+/-1-2mm approx.)

**Dimensions** 1210 x 2720mm approx.

**Acoustic**  
 8mm:  $\alpha_w$  0.34 / NRC 0.3  
 13.5mm:  $\alpha_w$  0.51 / NRC 0.5  
 25mm:  $\alpha_w$  0.8(H) / NRC 0.85  
 50mm:  $\alpha_w$  1.0 / NRC 1.0

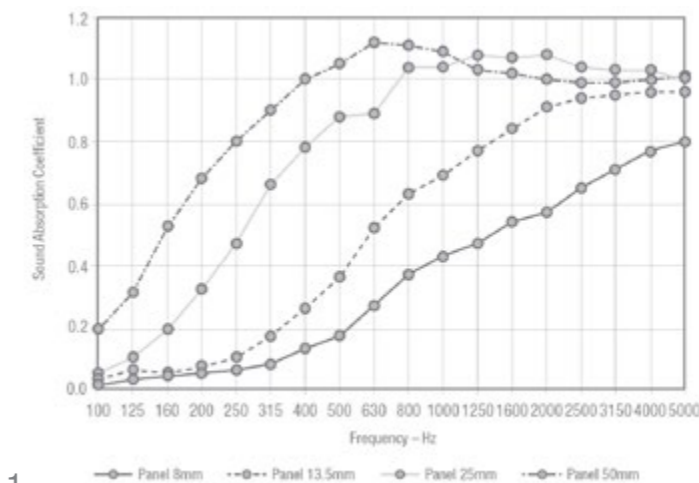
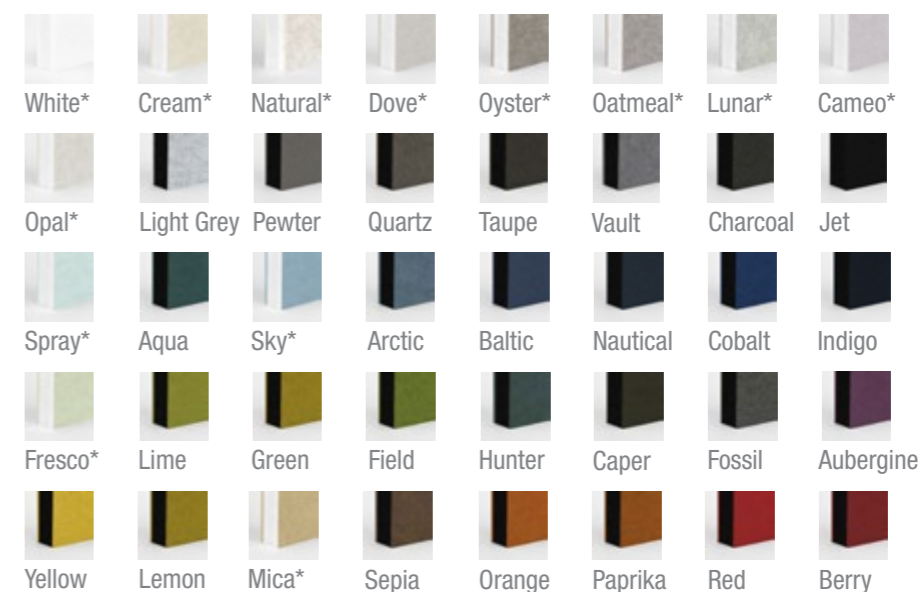
**Environment**  
 <65% Recycled Content  
 Low VOC  
 Greentag Level A Certification  
 EPD  
 Recyclable

**Fire Ratings**  
 AS/ISO 9705 (AS 5637.1) Group 1  
 AS/NZS 1530.3 (8mm +13.5mm)  
 GB 8624-2012 Grade B1 (8mm)  
 BS/EN 13501-1-2007 + A1-2009 B-s1,d0 (25mm - refer to installation guidelines)

**Application** Screen, wall + ceiling panel

**Edging** 9mm, 14.5mm, 25mm + 50mm anodised aluminium edging profiles are available

## Colours



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# Ecoustic® Velour Panel



**Description** Ecoustic Velour Panel is an acoustic panel available in four sound absorbing thicknesses, achieving between NRC 0.3 – 1.0, with a hook + loop receptive velour surface

**Composition** 100% PET (<68% recycled content)

**Thickness** 9mm, 15mm, 25mm, 50mm (+/-1-2mm approx.)

**Dimensions** 1210mm x 2720mm approx.

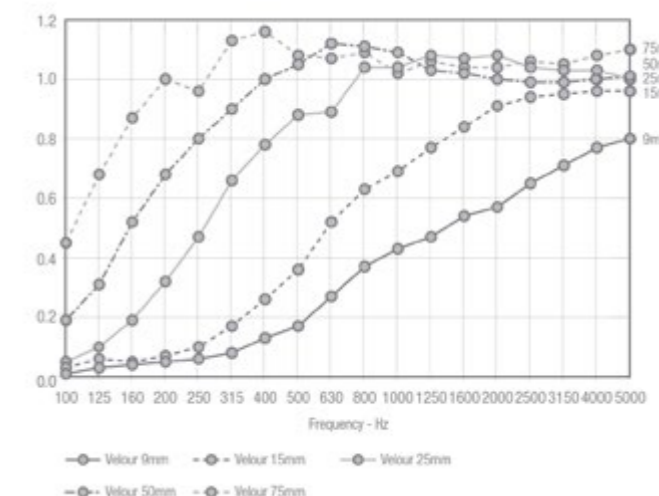
**Acoustic** NRC 0.3 - 1.0

**Environment** <68% recycled PET  
Low VOC  
Greentag Level A Certification  
EPD  
Recyclable

**Fire Ratings** ASTM E84  
AS/ISO 9705 Group 1

**Application** Wall + ceiling  
(contact adhesive + mechanical fastening required for ceilings)

## Colours



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# Ecoustic® SC Panel



**Description** An acoustic panel with a solid colour (SC) profile, ideal for applications with exposed edges such as workstations and partitions, available in three sound absorbing thicknesses, 9mm, 12mm + 24mm

**Composition** 100% PET

**Thickness** 9mm, 12mm + 24mm (+/-1-2mm approx.)

**Dimensions**  
 9mm: 1220 x 2440mm approx.  
 12mm: 1220 x 2800mm approx.  
 24mm: 1220 x 2720mm approx.

**Acoustic**  
 9mm: NRC 0.3 / αw 0.2 Direct Fix  
 12mm: NRC 0.4 / αw 0.25 Direct Fix  
 24mm: NRC 0.65 / αw 0.45 Direct Fix

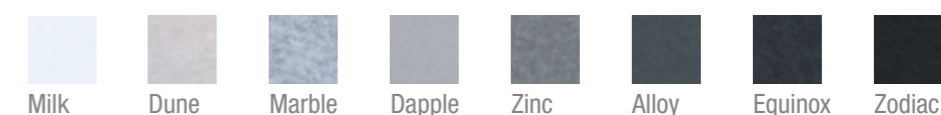
**Environment**  
 Low VOC  
 Manufacturer - ISO 14001 EMS  
 Cradle to Cradle Bronze Certified  
 Recyclable

**Fire Ratings**  
 AS/NZS 1530.3  
 ASTM E84  
 AS/ISO 9705 Group 1

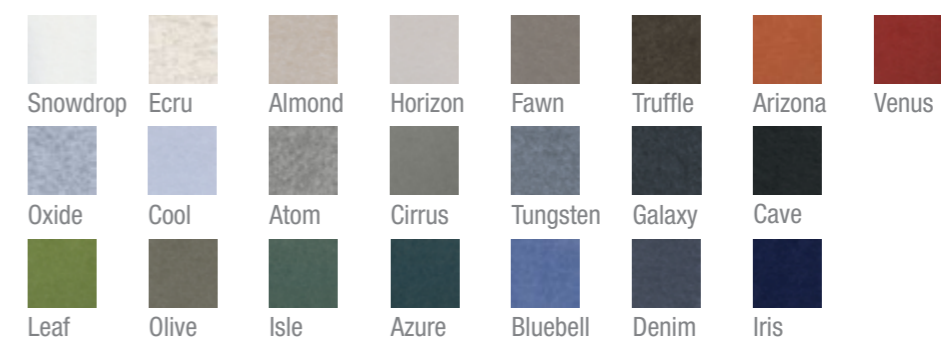
**Application** Workstation screen, partition, wall panel, ceiling

**Colours**

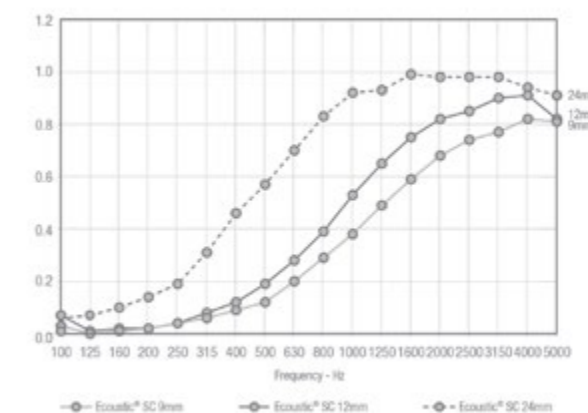
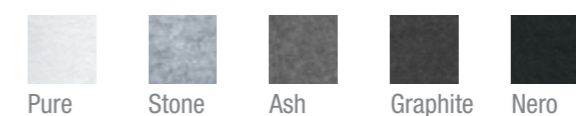
**Solid Colour 9mm**



**Solid Colour 12mm**



**Solid Colour 24mm**



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# Ecooustic® V Panel

**Description** Available in a variety of designs + finishes, Ecooustic V is a range of acoustic panels providing flexibility in acoustic performance + aesthetics, 9mm, 12mm + 24mm

**Composition** 100% PET

**Thickness** 9mm, 12mm + 24mm (+/-1-2mm approx.)

**Dimensions**  
 9mm: 1100 x 2400mm nominal  
 12mm: 1100 x 2700mm nominal  
 24mm: 1100 x 2700mm nominal

**Acoustic**  
 9mm: NRC 0.3 /  $\alpha_w$  0.2 Direct Fix  
 12mm: NRC 0.4 /  $\alpha_w$  0.25 Direct Fix  
 24mm: NRC 0.65 /  $\alpha_w$  0.45 Direct Fix

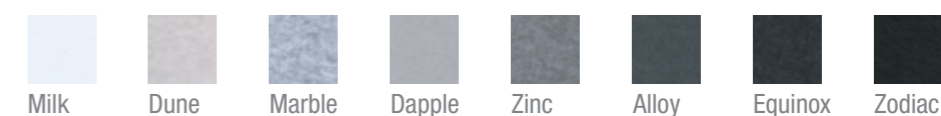
**Environment**  
 Low VOC  
 Manufacturer - ISO 14001 EMS  
 Cradle to Cradle Bronze Certified  
 Recyclable

**Fire Ratings**  
 AS/NZS 1530.3  
 ASTM E84  
 AS/ISO 9705 Group 1

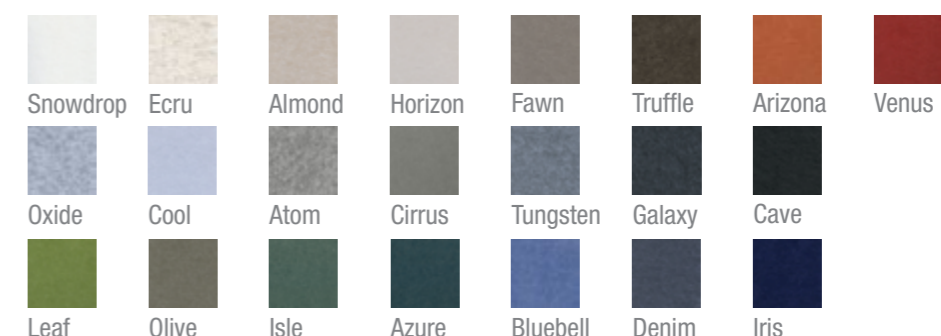
**Application** Workstation screen, partition, wall panel, ceiling

**Colours**

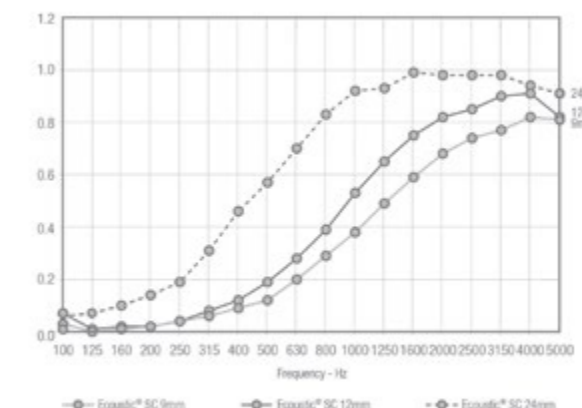
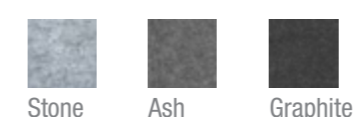
**Solid Colour 9mm**



**Solid Colour 12mm**



**Solid Colour 24mm**



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# Ecooustic® Duo

**Description** Acoustic panel made from Ecooustic Felt + SC Panels to create unique colour combinations

**Composition** 100% PET

**Thickness** 13mm (+/-1-2mm approx.)

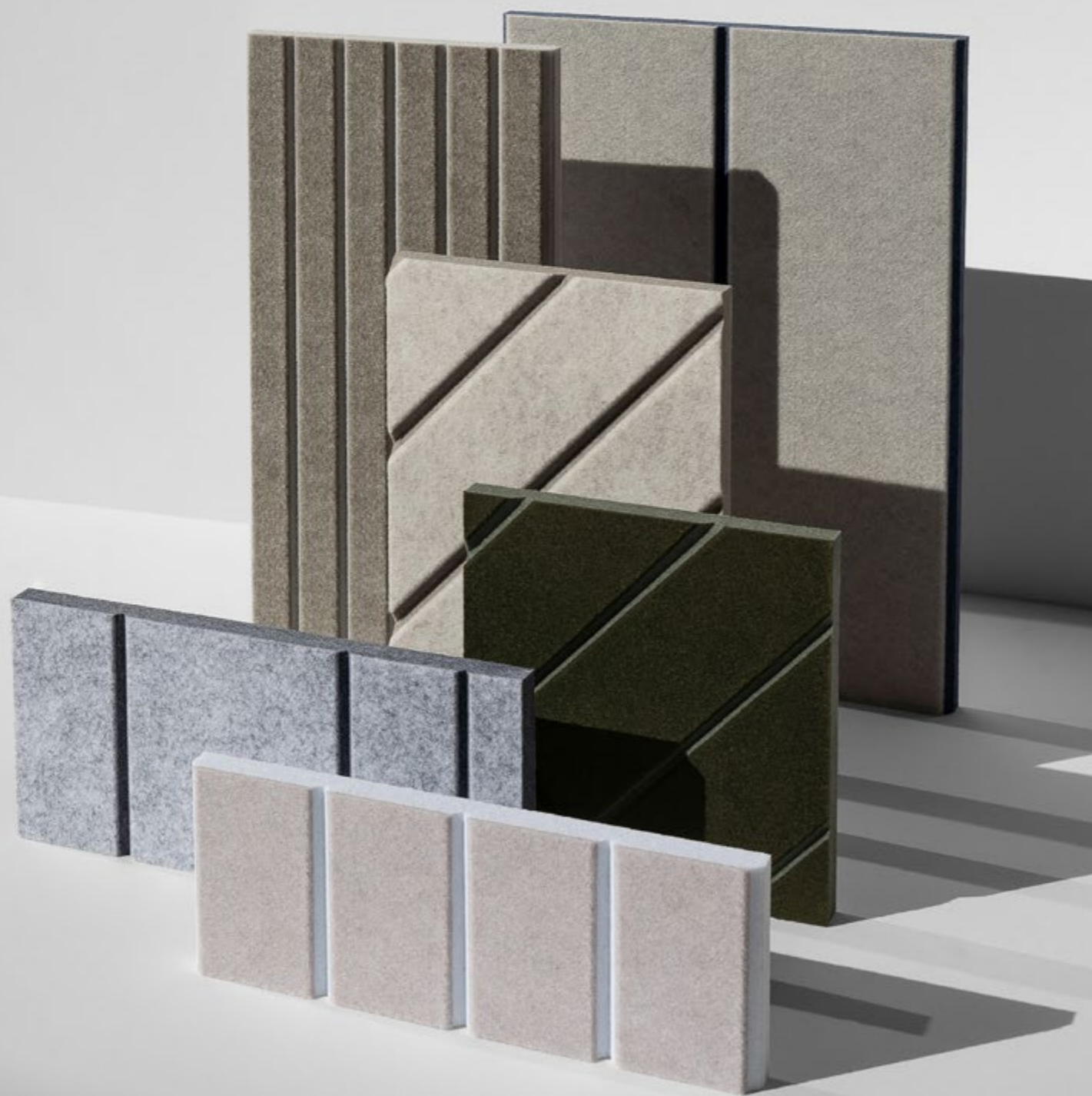
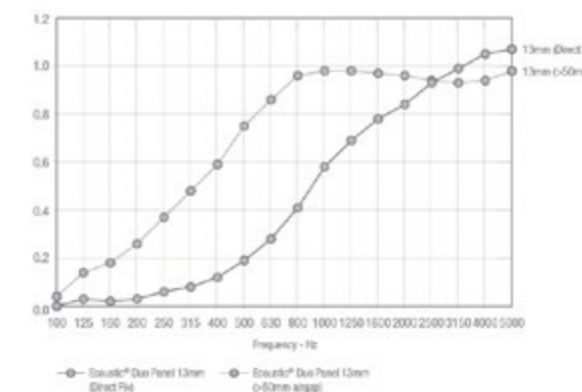
**Dimensions** 13mm: 1100 x 2700mm nominal

**Acoustic** 13mm: NRC 0.4 /  $\alpha_w$  0.25 Direct Fix

**Environment**  
 Low VOC  
 Felt: Greentag Level A certified  
 SC Manufacturer: ISO 14001 EMS  
 SC: Cradle to Cradle Bronze certified  
 Recyclable

**Fire Ratings**  
 AS/NZS 1530.3  
 AS/ISO 9705 Group 1

**Application** Wall and ceiling



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# Ecoustic® Duo

## Colours

### Face - Felt

Cream	Natural	Oatmeal	Oyster	Quartz	Taupe	
Opal	Dove	Lunar	Light Grey	Pewter	Vault	Charcoal
Spray	Sky	Arctic	Baltic	Cobalt	Nautical	Indigo
Fresco	Lime	Green	Field	Hunter	Caper	Aqua
Yellow	Lemon	Mica	Orange	Paprika	Sepia	
Cameo	Aubergine	Red	Berry	Fossil	Jet	

### Base - SC 12mm

Snowdrop	Ecu	Almond	Horizon	Fawn	Truffle	Arizona	Venus
Oxide	Cool	Atom	Cirrus	Tungsten	Galaxy	Cave	
Leaf	Olive	Isle	Azure	Bluebell	Denim	Iris	





## Ecoustic® Edging

**Description** Ecoustic® Panels can be fixed to walls using aluminium Ecoustic® Edging. With its slim profile, Ecoustic® Edging profiles are ideal to use to install Ecoustic® panels as they create lightweight, easily assembled systems that reduce the use of non-recyclable glues and tapes

9mm\*, 14.5mm\*, 25mm + 50mm natural anodised aluminium edging profiles are available for each Ecoustic® Panel thickness

**Composition** 100% aluminium

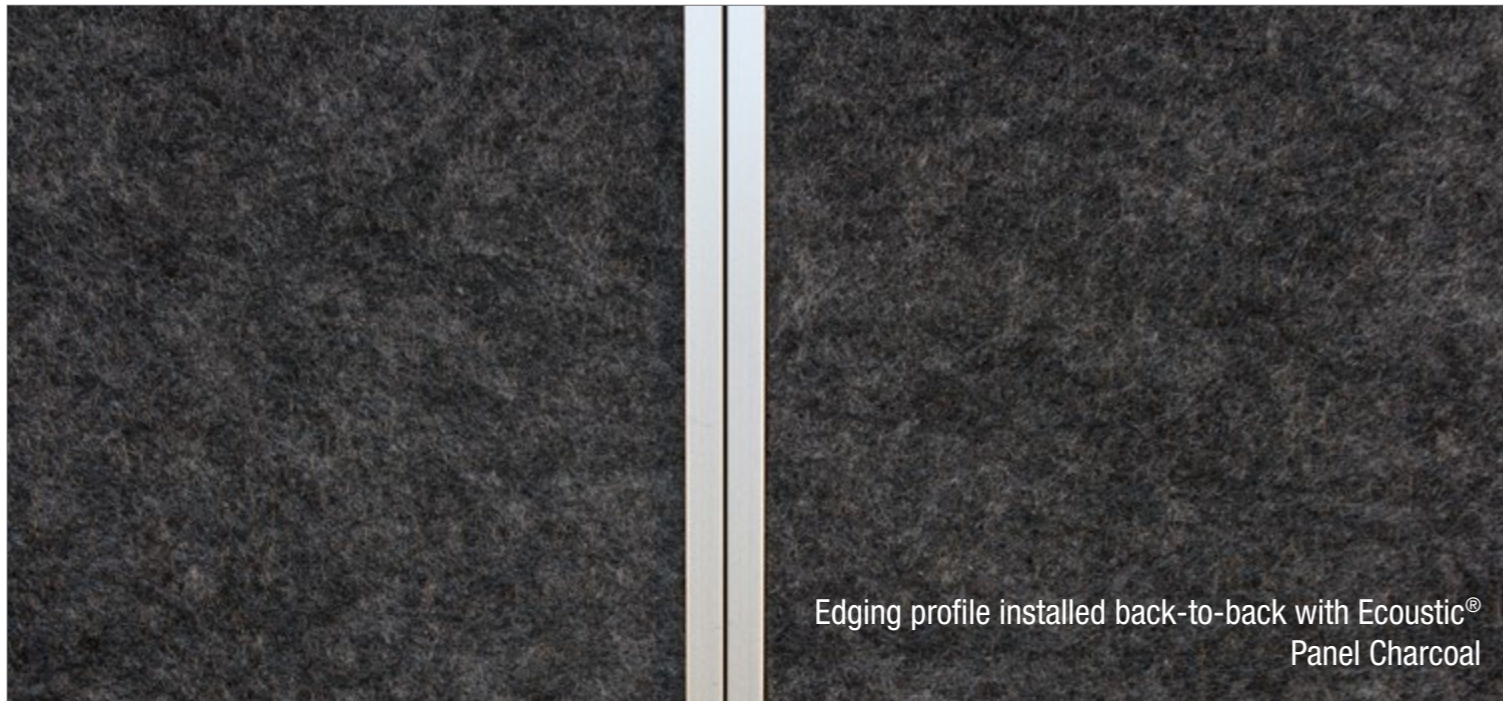
**Thickness** 1.4mm approx.

**Length** 2750mm (+/-5mm)

**Finish** Natural anodised aluminium 3mm counter sunk holes  
First hole in at 25mm followed by a 300mm pitch for subsequent holes

**Please Note** \*The edging profiles for the 8mm and 13.5mm Ecoustic® Panel are 1mm larger to allow for a 1mm tolerance in panel thickness

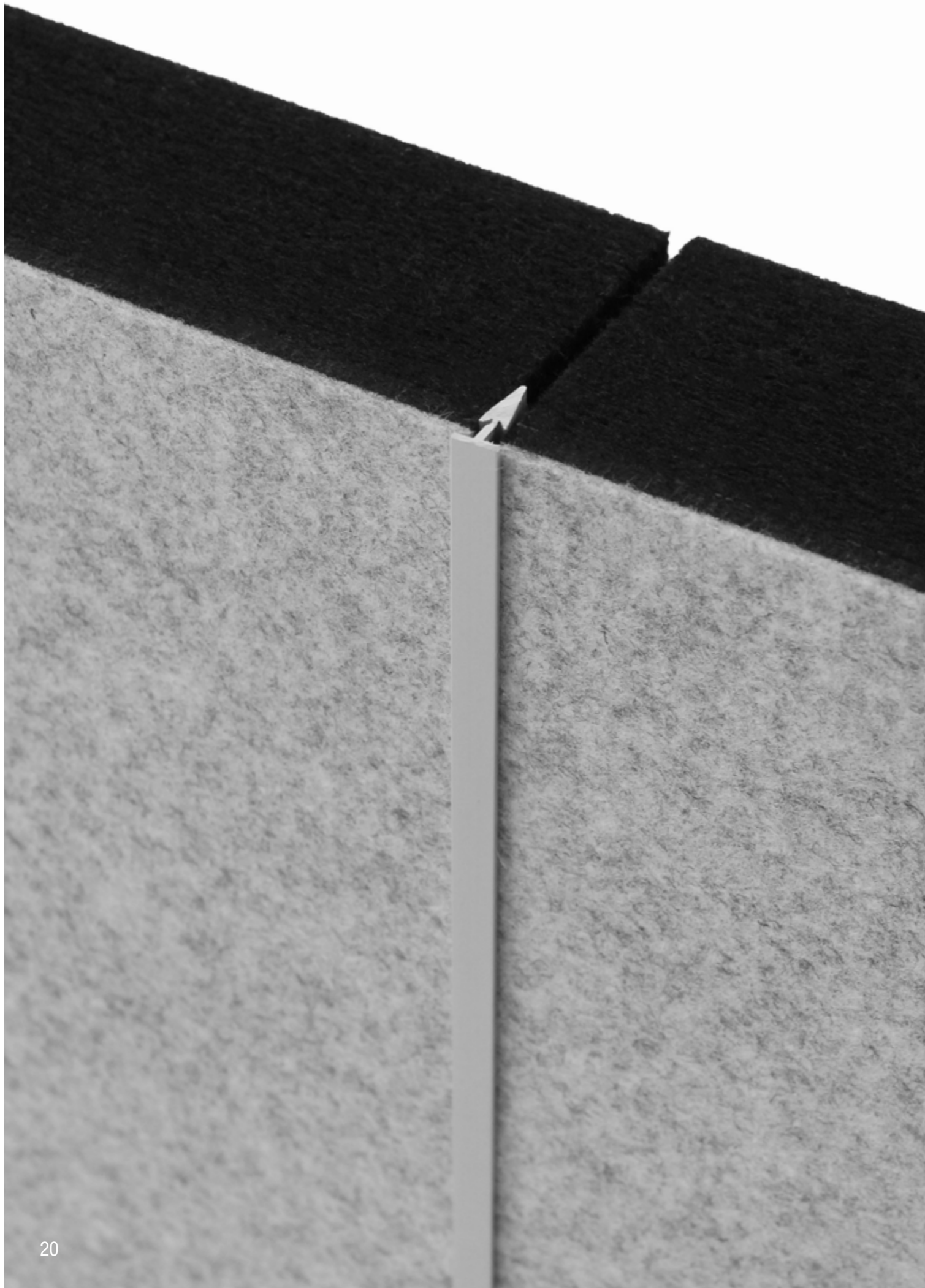
**Application** Edging trims for wall panels



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## Ecoustic® T Trim

<b>Description</b>	Ecoustic® T Trim is a slim 7mm profile that can conceal junction gaps between Ecoustic® Felt, Velour + SC panels
<b>Composition</b>	100% aluminium
<b>Length</b>	2750mm (+/-5mm)
<b>Finish</b>	Natural anodised or black powdercoat
<b>Please Note</b>	T Trim is suitable for 13.5mm, 15mm, 25mm, 50mm, 75mm + 100mm panels
<b>Application</b>	T trims for wall panels



# Ecoustic® Screen

**Description** An acoustic screen from Ecoustic with a white or black core detail

**Composition** 100% PET (up to 65% recycled PET)

**Thickness** 12mm (+/-1mm approx)

**Dimensions** 2420 x 1210mm approx.  
1820 x 1210mm\* approx. (\*minimums apply)

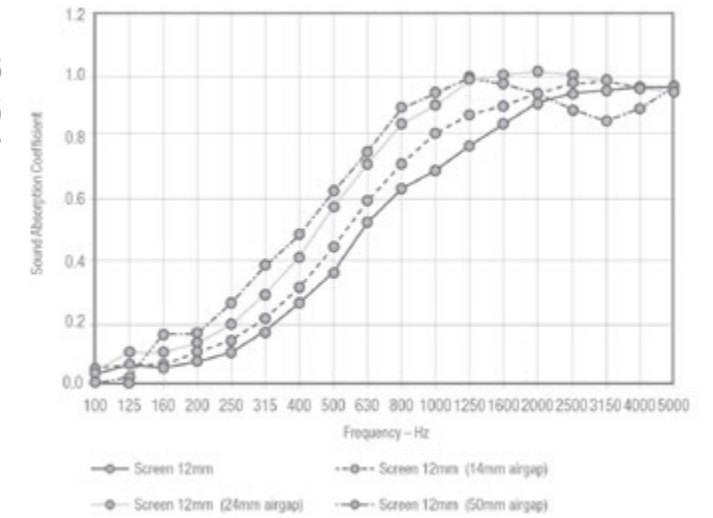
**Acoustic** Direct Fix  $\alpha_w$  0.51 / NRC 0.5  
14mm Airgap  $\alpha_w$  0.56 / NRC 0.6  
24mm Airgap  $\alpha_w$  0.6 / NRC 0.65  
50mm Airgap  $\alpha_w$  0.55 / NRC 0.7

**Environment** <65% Recycled Content  
Low VOC  
Greentag Level A Certification  
EPD  
Recyclable

**Fire Ratings** AS/NZS 1530.3  
AS/ISO 9705 Group 1

**Application** Screen, wall + ceiling panel

**Colours**



Ecoustic® Panel Meta White on Light Grey  
Collins Foods by Harry Poulos Architects  
Photography: Wade Roberts

# Ecoustic® Workstation SC Print



**Description** Acoustic screens with double-sided prints, ideal for frameless workstation screens

**Composition** 100% PET

**Thickness** 12mm (+/-1mm approx)

**Dimensions** 1200 x 2700mm approx.

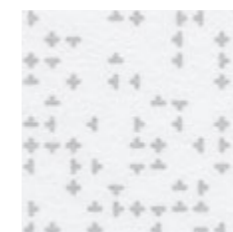
**Acoustic**  $\alpha_w$  0.8 / NRC 0.85 (200mm)

**Environment** Low VOC  
Oeko Tex Certified  
Recyclable

**Fire Ratings** Low VOC  
Manufacturer - ISO 14001 EMS  
Cradle to Cradle Bronze Certified  
Recyclable

**Application** Workstation screen, partition, ceiling

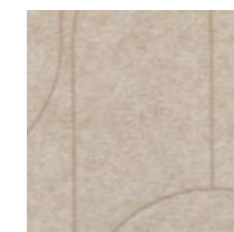
**Colours**



PLUS Silver on Snowdrop



PLUS White on Almond



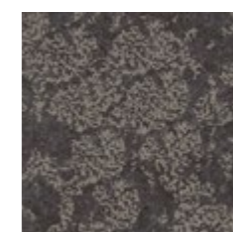
LOOP Ochre on Almond



AXIS Putty on Almond



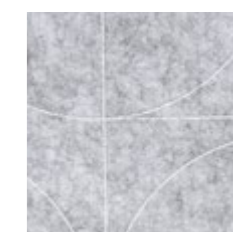
DISC Moss on Almond



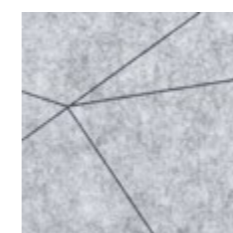
RAW Putty on Galaxy



RAW White on Oxide



LOOP White on Oxide



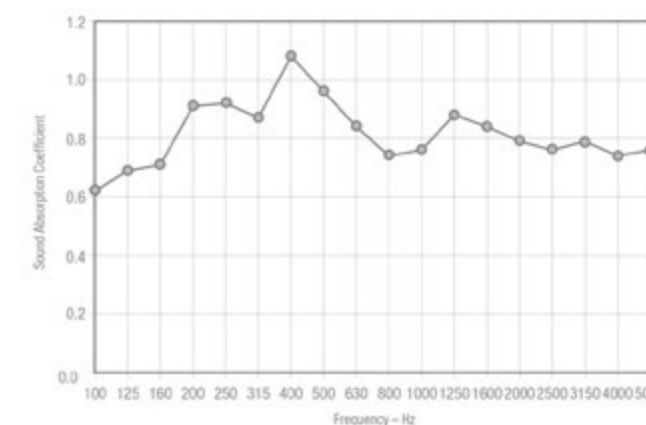
AXIS Navy on Oxide



PLUS Petrol on Oxide



TRI Slate on Oxide



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# Ecoustic® Soffit

**Description** A highly functional acoustic ceiling soffit

**Composition** 100% PET (up to 65% recycled PET)

**Thickness** Available in two thicknesses: 25mm + 50mm

**Dimensions** 1200mm (w) x 1200mm (l) (maximum size) +/-1.5% approx.  
600mm (w) x 1200mm (l) +/-1.5% approx.

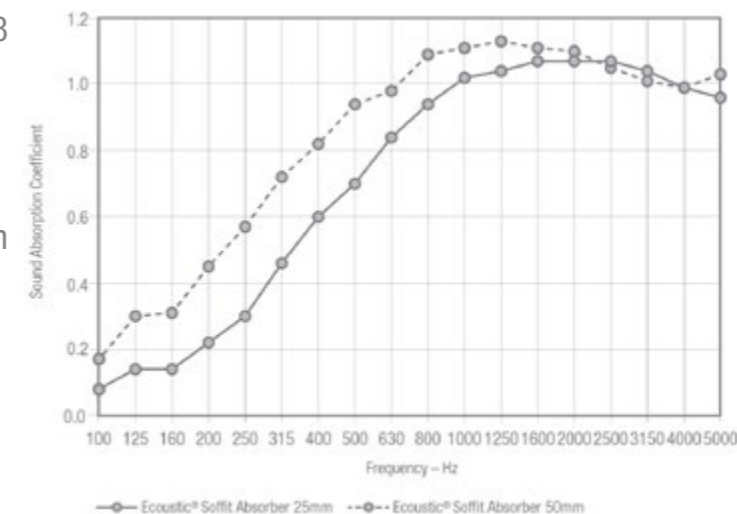
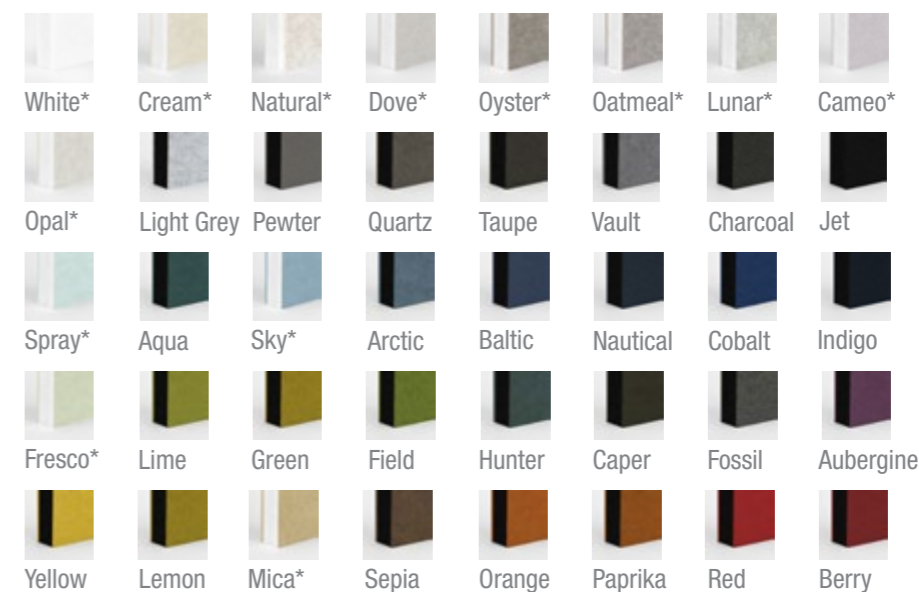
**Acoustic** 25mm:  $\alpha_w$  0.6\*MH / NRC 0.8  
50mm:  $\alpha_w$  0.85\*H / NRC 0.9

**Environment** <65% Recycled Content  
Low VOC  
Greentag Level A Certification  
EPD  
Recyclable

**Fire Ratings** AS/ISO 9705 Group 1

**Application** Soffit + ceiling

## Colours



Ecoustic® Soffit White  
Uber by Geyer Architects + District Furniture  
Photography: Dion Robeson

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# ACOUSTIC TERMS + DEFINITIONS

**Absorption:** The conversion of sound energy to heat energy. It varies with the frequency and angle of incidence of the sound that strikes acoustic material. A “soft room” is a space with highly absorbent surfaces whereas a “hard room” has surfaces of low absorbent value and are therefore highly reflective and reverberant.

**Air-borne sound:** Sound that travels through air rather than through structure.

**Air Gap:** For effective absorption of sound energy, the sound wave should pass through the absorbent material during its maximum velocity (quarter-wavelength). The speed of sound is zero when it meets a rigid barrier such as the backing wall of a sound absorbing material. Increasing the thickness of the sound absorber or providing an air gap between the absorber and wall will improve absorption.

**Attenuation:** Also known as blocking or dampening, attenuation involves dividing a soundscape into discrete acoustic zones using different types of acoustic barriers that restrict sound from travelling without obstruction.

**Broadband sound:** A spectrum of sound consisting of a large number of frequencies, none of which is dominant.

**Critical distance:** The distance from a sound source at which the energy of direct sound and reverberant sound are equal.

**Decibel (dB):** The measurement term used to define sound intensity. A 10 times increase in sound intensity is defined as a Bel (named after Alexander Graham Bell); 4 Bels represent a 10,000 times increase in sound intensity. A decibel is 1/10th a Bel; 40 dB equal 4 Bels. A 1dB change in sound intensity is just noticeable; most humans can distinguish a 3dB change and consider a 10dB change as twice or half loud.

**Diffraction:** The change in direction of sound resulting from a discontinuity of a boundary (say, an open door).

**Diffusion:** A means to distribute sound energy in equally probable directions.

**Echo:** A return of sound that is perceived as a discrete sound.

**Flanking transmission:** The transmission of sound by an unintended path.

**Frequency:** The number of back and forth vibrations of air molecules (cycles) that occur in a second; expressed as Hertz (Hz). Sometimes known as pitch.

**Hearing:** The ability of the human ear to translate changes from ambient atmospheric pressure caused by sound energy into a signal recognizable by the brain. Sensitivity to sound depends upon its frequency and energy. The audible range of frequency for humans is 20Hz to 20,000Hz, provided that at least 0 dB of sound intensity (the threshold of hearing) is present.

**In phase:** Sound waves that reach their peak compressions (and rarefactions) at the same time.

**Insulation:** The ability of material to prevent sound from reaching a location either by reflection back to the sound source or by acoustic resistance.

**Inverse-square law:** Sound intensity (sound energy per unit of area) varies inversely with the square of the distance from its source. Sound intensity decreases 6 dB for each doubling of the distance from its source.

**Noise:** Unwanted sound having no utility which may be airborne or structure-borne. Like a pollutant, noise needs to be limited and controlled to diminish its negative physiological, psychological, behavioral and cognitive affects.

**Noise Reduction Coefficient (NRC):** The arithmetical average, expressed as a decimal to the nearest .05, of the sound absorption coefficients at 250Hz, 500Hz, 1000Hz, and 2000Hz.

**Octave:** A doubling or halving of frequency. 20Hz-40Hz is considered the bottom octave in a series of even-order harmonics that extend without limit beyond the audible range.

**Reflection:** Sound and light are reflected off smooth surfaces in a similar manner – the angle of incidence equals the angle of reflection.

**Refraction:** The bending of sound waves travelling through media that conduct sound at varying speed.

**Resonant frequency:** Any object will vibrate at a particular sound frequency, its natural resonant frequency, when disturbed by physical force or by sound having frequency equal to its resonant frequency.

**Reverberation:** The lingering of sound in an enclosed space after the original sound source has stopped. A room with much reverb is said to be “live”; one without reverb is said to be “dead”. Reverberation time (RT60): The time, in seconds, that reverberant sound energy in a space diminishes by 60dB.

**Sabin (Metric):** The metric measurement unit, of sound absorption per area of a material. One square metre of acoustic material having a sound absorption average coefficient of 1 has a Metric Sabin value of 1.

**Sabine, Wallace C.:** The father of modern acoustics and the developer of the Sabine reverberation equation;  $RT60 = .049 \text{ sec./ft.} \times \text{Volume/Absorption Surface}$

**Sound:** A vibrational disturbance comprised of alternating compressions and rarefactions of air molecules. The compressions push air together and thereby cause higher-than-normal atmospheric pressure, whereas rarefactions spread air molecules

further apart thereby causing lower-than-normal atmospheric pressure. Total sound energy is the potential energy from ambient air pressure and the kinetic energy of moving air molecules.

**Sound Absorption Coefficient (“alpha”):** The amount, expressed as a decimal value between 0 and 1 to the nearest .05, of sound energy that is absorbed, or otherwise not reflected, by an acoustic material at a specified frequency.

**Sound masking:** The process by which the audibility of one sound is diminished by the introduction of another sound. White noise uses equal sound energy at all frequencies and thereby favours higher frequency spectra. Pink noise balances sound energy over a series of octaves and sounds less harsh.

**Sound Transmission Class (STC):** A rating system that provides an estimate of the insulation ability of a partition.

**Structure-borne noise:** The generation of unwanted radiated sound caused by vibrational forces in solid materials.

**Wavelength:** The distance a sound wave travels from compression to the next compression. The wavelength (or period) of sound at any frequency can be computed by dividing the speed of sound (1087 ft./sec.) by its frequency. At 20Hz, the wavelength of sound is 56 feet long. These long sound waves give low frequency sound (bass) its penetrating ability.

**Weighted Sound Reduction Index or Rw:** The rating used to measure the level of sound insulating abilities of elements such as interior and exterior walls of a building. The higher the Rw figure, the better the sound isolation that is provided. An increase of 1 Rw point is equivalent to a reduction of 1 dB of noise transmitted through the element.

Instyle is an industry leader in design and sustainability.

Founded in 1987, Instyle has grown into an internationally recognised brand offering a wide range of interior finishes including textiles, leathers, acoustic solutions and wallcoverings.

Renowned for developing sophisticated, high quality products with integrity, Instyle has won numerous accolades including the United Nations and Best of Neocon awards.

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