

Ecooustic® Ceiling Tiles

Acoustic Drop-In Ceiling Tiles Guide



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INSTYLE



Ecoustic® Ceiling Edit Ray

DROP-IN CEILING TILES

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Ecoustic® Ceiling Flat Timbre

Description Sophisticated acoustic drop-in ceiling grid tiles with a wood grain print for improved acoustic performance, Group 1 fire rating + Cradle to Cradle Bronze environmental certification, available in 3 sound absorbing thicknesses

Composition 100% PET

Dimensions 600 Tile: 595mm (w) x 595mm (h)
1200 Tile: 1195mm (w) x 595mm (h)
Drops into new or existing T-Frame suspended ceiling systems with a nominal 600 x 600mm or 1200 x 600mm grid

Profile Thickness 9mm, 12mm + 24mm

Acoustic NRC 0.85 - 0.95 (200mm air gap)

Environment Low VOC
SC Manufacturer: ISO 14001 EMS
SC: Cradle to Cradle Bronze Certified
Designed for disassembly
Recyclable

Fire Ratings AS/ISO 9705 Group 1
ASTM E84

Application Drop-in ceiling tiles

Finishes



TIMBRE Maine



TIMBRE Heritage



TIMBRE Artisan



TIMBRE Rural



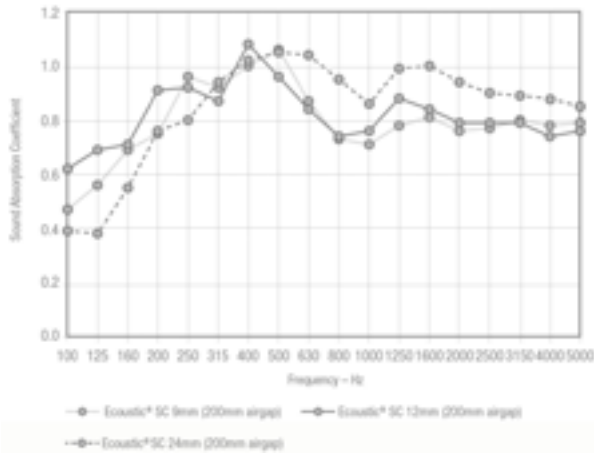
TIMBRE Nordic



TIMBRE Smoked

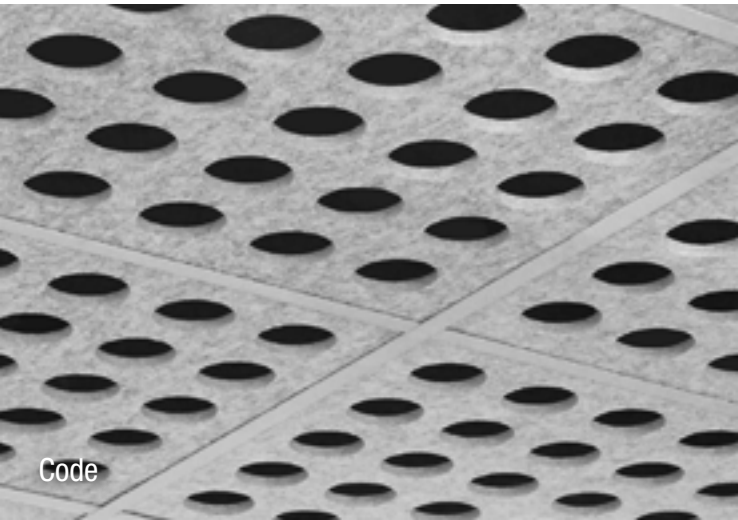


TIMBRE Urban





Data



Code



Ray

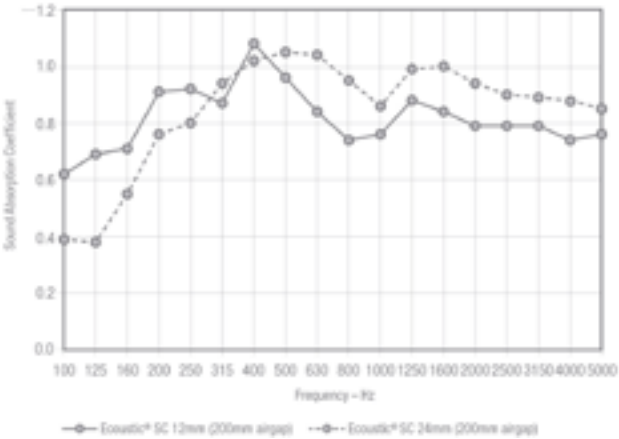


Dot

Ecoustic® Ceiling Edit

DROP-IN CEILING TILES

Description	Ecoustic Ceiling Edit are highly functional, decorative ceiling tiles available in a wide range of contemporary designs and colours. Made from two sound-absorbing thicknesses, 12mm + 24mm, designed to fit into new and existing T grid systems
Composition	100% PET
Dimensions	1200 Tile: 1195mm (l) x 595mm (w) Drops into new or existing 15mm or 24mm T-Frame suspended ceiling systems with a nominal 1200 x 600mm grid
Profile Thickness	12mm + 24mm
Acoustic	NRC 0.85 - 0.95 (200mm air gap)
Environment	Low VOC SC Manufacturer: ISO 14001 EMS SC: Cradle to Cradle Bronze Certified Designed for disassembly Recyclable
Fire Ratings	AS/ISO 9705 Group 1 ASTM E84
Application	Drop-in ceiling tiles



Colours

Solid Colour 12mm

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

Solid Colour 24mm

Pure	Stone	Ash	Graphite	Nero

[VIEW ONLINE](#)



Sculpt Classic



Sculpt Peak



Sculpt Network



Sculpt Taper

Ecoustic Sculpt™

DROP-IN CEILING TILES

Description Designed + made in Australia, Ecoustic Sculpt™ is an innovative, patented award-winning acoustic drop-in ceiling tile system available in a range of striking designs, from understated simplicity to dramatic sculptural shapes

Composition 100% PET, acoustic mesh + aluminium suspension rails

Dimensions 600 Tile: 595mm (l) x 595mm (w)
1200 Tile: 1195mm (l) x 595mm (w)
Drops into new or existing 15mm or 24mm T-Frame suspended ceiling systems with a nominal 600 x 600mm and 1200 x 600mm grid

Profile Thickness 12mm (all designs) + 24mm (Classic, Network, Peak, Taper + Steps)

Acoustic NRC 0.65 - 0.9*
* Tested with Ecoustic Infill to improve the low frequency absorption

Environment Low VOC
SC Manufacturer: ISO 14001 EMS
SC: Cradle to Cradle Bronze Certified
Designed for disassembly
Recyclable

Fire Ratings AS/ISO 9705 Group 1
ASTM E84

Application Drop-in ceiling tiles

Colours

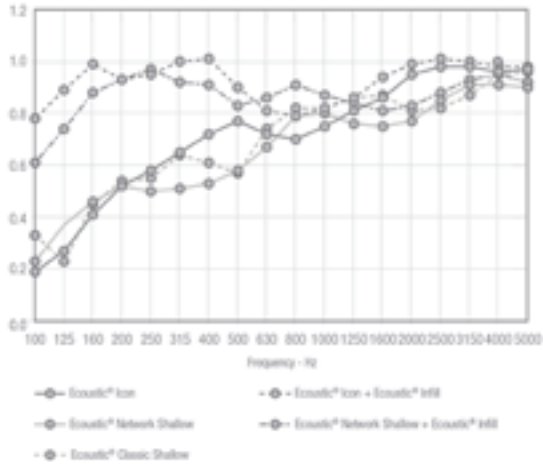
Solid Colour 12mm



Solid Colour 24mm



* Selected designs



[VIEW ONLINE](#)













Ecooustic® Lens

Description	Ecooustic Lens is an acoustic baffle designed to integrate with Sculpt™ Classic Shallow drop-in ceiling tile system and enhance acoustic performance. Available in four designs, Channel 1050 + 2300, Trio + Quartet, each Lens design can be featured within a ceiling area for added depth and texture as well as assist in zoning spaces visually and acoustically. All Lens profiles are available with either square or radius corners to suit any interior space
Composition	100% PET + acoustic mesh
Dimensions	Integrates with Sculpt Classic Shallow 1200 x 600mm drop-in ceiling tile
Profile Thickness	12mm
Acoustic	NRC 0.9 - 1.0* * Tested with Sculpt Classic Shallow ceiling tile
Environment	Low VOC SC Manufacturer: ISO 14001 EMS SC: Cradle to Cradle Bronze Certified Designed for disassembly Recyclable
Fire Ratings	AS/ISO 9705 Group 1 ASTM E84
Application	Baffle with drop-in ceiling tiles

Colours

Solid Colour 12mm

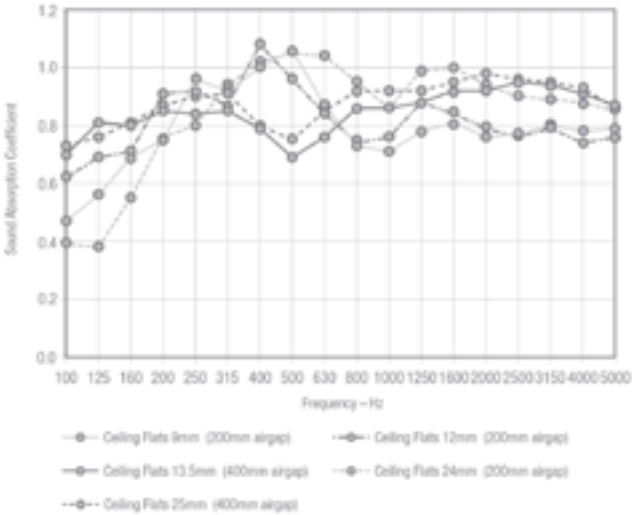
						
Snowdrop	Almond	Horizon	Fawn	Truffle	Arizona	Venus
						
Oxide	Cool	Atom	Cirrus	Tungsten	Galaxy	Cave
						
Leaf	Olive	Isle	Azure	Bluebell	Denim	Iris

[VIEW ONLINE](#)



Ecooustic® Ceiling Flats

Description	Ecooustic® Ceiling Flats are highly functional drop-in ceiling tiles available in a wide range of colours and sound-absorbing thicknesses, 9mm, 12mm, 13.5mm, 24mm and 25mm, designed to fit into new and existing grid systems
Composition	100% PET (13.5mm + 25mm contain up to 65% recycled PET)
Dimensions	600 Tile: 595mm (w) x 595mm (h) 1200 Tile: 1195mm (w) x 595mm (h) Drops into new or existing T-Frame suspended ceiling systems with a nominal 600 x 600mm or 1200 x 600mm grid
Thickness	Available in five thicknesses: 9mm, 12mm, 13.5mm, 24mm and 25mm approx.
Acoustic	SC 9mm: αw 0.78 / NRC 0.85 (200mm airgap) SC 12mm: αw 0.8 / NRC 0.85 (200mm airgap) 13.5mm: αw 0.85 / NRC 0.85 (400mm airgap) SC 24mm: αw 0.95 / NRC 0.95 (200mm airgap) 25mm: αw 0.90 / NRC 0.90 (400mm airgap)
Environment	<65% Recycled Content (13.5mm + 25mm) Low VOC EPD + Greentag Level A Certified (13.5mm + 25mm) SC Manufacturer: ISO 14001 EMS SC: Cradle to Cradle Bronze Certified Designed for disassembly Recyclable
Fire Ratings	AS/ISO 9705 Group 1
Application	Ceiling tiles











Ecooustic® Ceiling Flats













DROP-IN CEILING TILES

Colours

Solid Colour 9mm

							
Milk	Dune	Marble	Dapple	Zinc	Alloy	Equinox	Zodiac




















Solid Colour 12mm

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

Solid Colour 24mm

				
Pure	Stone	Ash	Graphite	Nero

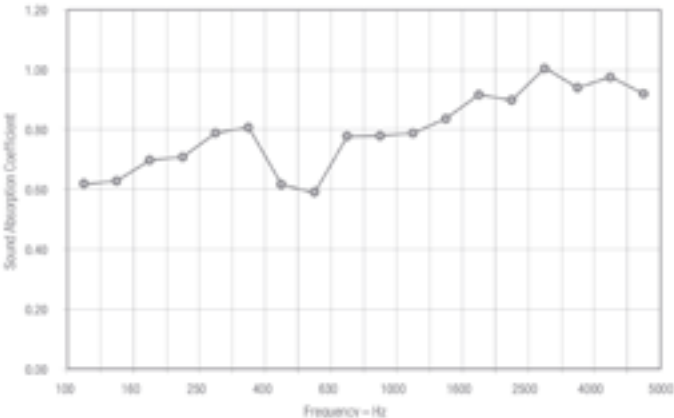
Panel 13.5mm + 25mm

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



Ecoustic® Matrix Ceiling Tile

Description	Highly functional acoustic drop-in ceiling tiles designed for new and existing suspended ceilings
Composition	100% PET (32.5% recycled PET)
Dimensions	600 Tile: 595mm (w) x 595mm (h) x 65mm (d) 1200 Tile: 1195mm (w) x 595mm (h) x 65mm (d) Drops into new or existing T-Frame suspended ceiling systems with a nominal 600 x 600mm or 1200 x 600mm grid
Acoustic	α_w 0.75(H) / NRC 0.75 (400mm airgap)
Environment	32.5% Recycled Content EPD + Greentag Level A Certified Low VOC Recyclable
Fire Ratings	AS/ISO 9705 Group 1
Application	Ceiling tiles
Colours	<div><div><div>White</div><div>Opal</div><div>Spray</div><div>Fresco</div><div>Yellow</div></div><div><div>Cream</div><div>Light Grey</div><div>Aqua</div><div>Lime</div><div>Lemon</div></div><div><div>Natural</div><div>Pewter</div><div>Sky</div><div>Green</div><div>Orange</div></div><div><div>Dove</div><div>Quartz</div><div>Baltic</div><div>Field</div><div>Paprika</div></div><div><div>Oyster</div><div>Taupe</div><div>Nautical</div><div>Caper</div><div>Red</div></div><div><div>Cameo</div><div>Charcoal</div><div>Cobalt</div><div>Fossil</div><div>Berry</div></div><div><div>Oatmeal</div><div>Jet</div><div>Indigo</div><div>Aubergine</div></div></div>



Ecoustic® Matrix Ceiling Tile White
Alinta by IA Design
Photography: Ryan North of Evolve Design



Ecoustic® Torque Ceiling Tile

Description Ecoustic® Torque is an acoustic drop-in ceiling tile that provides outstanding low and mid-range frequency performance in ceiling applications

Composition 100% PET (32.5%% recycled PET)

Dimensions 600 Tile: 595mm (w) x 595mm (h) x 48mm (d)
1200 Tile: 1195mm (w) x 595mm (h) x 48mm (d)
Drops into new or existing T-Frame suspended ceiling systems with a nominal 600 x 600mm or 1200 x 600mm grid

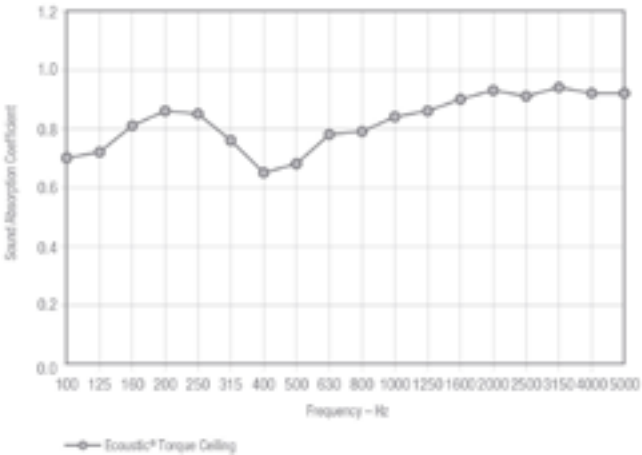
Acoustic α_w 0.8 / NRC 0.8
(400mm air cavity)

Environment 32.5%% Recycled Content
Low VOC
EPD + Greentag Level A Certified
Recyclable

Fire Ratings AS/ISO 9705 Group 1

Application Ceiling tiles

Colours



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



Blade Ceiling Tile

Description Ecooustic® Blade is an acoustic drop-in ceiling tile combining superior sound absorption with the elegance of PEFC-certified solid timber, available in five profile options

Composition PEFC-certified timber + acoustic scrim

Dimensions Available in three tile sizes to fit 600 x 600mm, 1200 x 600mm and custom 2400 x 600mm ceiling grids
Designed for use in a standard 24mm and 15mm two-way ceiling grid system

Acoustic	3018-14	αw 0.5 / NRC 0.5
	+ Infill	αw 0.85 / NRC 0.8
	3060-7	αw 0.5 / NRC 0.45
	+ Infill	αw 0.7 / NRC 0.75
	3018-17	αw 0.5 / NRC 0.55
	+ Infill	αw 0.85 / NRC 0.85
	1830-13	αw 0.5 / NRC 0.5
	+ Infill	αw 0.8 / NRC 0.8
	3060-8	αw 0.4 / NRC 0.4
	+ Infill	αw 0.65 / NRC 0.65
Refer to acoustic graph (next page)		

Environment Low VOC + PEFC-certified timber

Fire Ratings AS/NZS 3837 Group 3
Ecooustic® Infill: AS/ISO 9705 Group 1

Application Ceilings

Finishes						
	White Wash Hemlock	Hemlock Clear	Shale Hemlock	Birch Ply	Western Red Cedar*	Spotted Gum*
						
	Hickory Hemlock	Walnut Hemlock	Espresso Hemlock			

Ecooustic® Blade 3060-7 Western Red Cedar
Deakin University Chancellor’s Office by McGlashan Everist
Photography: Peter Clarke



Blade FR Ceiling Tile

Description	Ecoustic® Blade FR is an acoustic drop-in ceiling tile combining superior sound absorption with a timber aesthetic + improved fire rating		
Composition	Fire-rated composite + acoustic scrim		
Dimensions	Available in two tile sizes to fit 600 x 600mm and 1200 x 600mm ceiling grids. Designed for use in a standard 24mm and 15mm two-way ceiling grid system		
Acoustic	<div>3018-14 αw 0.5 / NRC 0.5</div> <div>+ Infill αw 0.85 / NRC 0.8</div> <div>3060-7* αw 0.5 / NRC 0.45</div> <div>+ Infill αw 0.7 / NRC 0.75</div> <div>*Indicative test for 2560-7</div> <div>3018-17 αw 0.5 / NRC 0.55</div> <div>+ Infill αw 0.85 / NRC 0.85</div> <div>1830-13 αw 0.5 / NRC 0.5</div> <div>+ Infill αw 0.8 / NRC 0.8</div> <div>3060-8 αw 0.4 / NRC 0.4</div> <div>+ Infill αw 0.65 / NRC 0.65</div> <div>*Indicative test for 2560-8</div> <div>Refer to acoustic graph on next page</div>		
Environment	Low VOC + PVC-Free		
Fire Ratings	AS/ISO 9705 (AS 5637.1) NCC BCA Group 2		
Application	Ceilings		

Finishes



Samite FR



Pike FR



Odeum FR



Bluff FR



Dome FR



Trek FR



Griddle FR



Mesa FR



Nevada FR

Ecoustic® Blade 3060-7
Alinta by IA Design
Photography: Ryan North of Evolve Design

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.

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