



August 2014

econocoust *plus* premium acoustic ceiling tiles

Sound is unavoidable in our daily lives but when it becomes noise, it can be unpleasant and even harmful and this is where econocoust plus acoustic ceiling tiles can add great value and dramatically enhance the comfort ability of the functional environment.

The correctly selected acoustic ceiling tile can offer great benefits in reducing overall noise levels and the econocoust plus range offers:-

● Sound Insulation

Econocoust plus tiles reduces the sound waves during transmission by leading the energy of sound to deviate from its direction of propagation. Sound spreading to adjoining rooms is obstructed and our private conversation is protected. Ceiling Attenuation Class (CAC) is the measure of the sound insulation performance of ceiling tiles. The CAC rate of econocoust plus ceiling tiles is a minimum of 35.

● Sound Absorption

Econocoust plus tiles are able to provide the right balance between energy absorbed by the material and reflection. If the co-efficient is multiplied by 100, it provides the percentage of the incident sound that is absorbed.

For example if:-

a = 0,60 then

a = 0,60 x 100% = 60% sound absorption

The remaining 40% is the sound which will be reflected.

Acoustic Tiles are categorised into different Absorption Classes for example Class C is the range from 0.60 – 0.75 as illustrated in the table below:-

Absorption Class aw-value [-]

A 0.90; 0.95; 1.00

B 0.80; 0.85

C 0.60; 0.65; 0.70; 0.75

D 0.30; 0.35; 0.40; 0.45; 0.50; 0.55

E 0.15; 0.20; 0.25

not classified 0.00; 0.05; 0.10

● Thermal Resistance

Econocoust plus tiles can contribute to the total overall R-Values for the ceilings. An R-value is a unit of thermal resistance for a particular material or assembly of materials (such as an insulation panel). The R-value depends on a solid material's resistance to conductive heat transfer.

	Elegant	Softpoem	Quietair II	Wintersnow
R Value at 15mm	0.30	0.26	0.26	0.26

● Light Reflection

The illumination provided by a direct light source can cause glare and shadows, which create problems for our visual sense and work efficiency. It is very important to use high light reflection decoration materials. Econocoust plus tiles offer up to 90% light reflection, creating more indirect light and thereby enhancing the working environment

● Fire Resistance

Econocoust plus tiles offer CLASS B/B1/2 according to SANS 428:2012 (10177-5 & 10177-10). This ceiling system did not propagate flaming during the standard SANS 10177-10 test. Econocoust plus tiles can be used in all applications, except where non-combustible ceiling installations are required.



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● Bacterial Resistance

Econocoust plus Safeguard tile has been treated with humidity and bacterial resistance technology and a special mould proof coating to prevent and eradicate bacteria. The mould proof coating adds to and improves the moisture resistance of the panel.

● Humidity Resistance

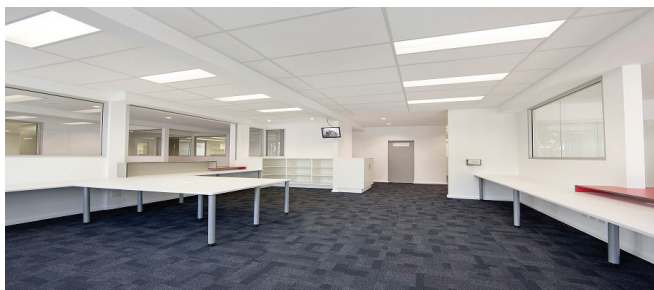
A key factor influencing selection, particularly at the coast and in Africa and the islands where there are hot and humid conditions. It is far more common today though to have temperature controlled buildings which can reduce the importance of the RH rating of acoustic ceiling tiles provided that the installation takes place when the building is closed to the elements and the HVAC system is functional.

Econocoust plus ceiling tiles relative humidity ratings range from 90-99% and have an added coating to achieve results.

Econocoust plus ceiling tiles will not deform or sag in relatively high humidity and temperature conditions giving the professional team all of the confidence required.

With the addition of econocoust plus our premium range of mineral and glass fibre tiles we can offer a solution for an even more diverse range of acoustic, thermal and other special requirements.

Characteristics	Softpoem	Wintersnow	Quietair II	Safeguarder	Elegant / Elegant Black
Acoustics	NRC 0.55	NRC 0.55	NRC 0.60	NRC 0.50	NRC 0.90
Fire Classification	Class B/B1/2	Class B/B1/2	Class B/B1/2	Class B/B1/2	Class B/B1/2
Absorption Class	D	D	C	D	A
Humidity Resistance	RH 90%	RH 90%	RH 90%	RH 90%	RH 99%
Light Reflection	Up to 0.86	Up to 0.86	Up to 0.85	Up to 0.90	Up to 0.90
Recycled Material	45%	48%	48%	53%	75%



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