



公共・商業施設向け天井材・
軒天井材製品ラインアップ

Acoustic Mineral Fibre Ceilings



資源循環の推進

ー 廃棄物の削減、資源の再利用 ー

適切に処理された森林資源の積極的な活用により、森林整備を促進するとともに、
廃棄ではなく、マテリアルリサイクル、サーマルリサイクル等による資源の再利用を通じて、
サーキュラーエコノミーの実現に貢献し、社会全体での持続可能な資源循環をめざします。

気候変動の緩和

ー カーボンニュートラルの実現 ー

自社の温室効果ガス排出量削減はもちろんのこと、
サプライチェーン全体で削減し、
森林・木材資源の活用により、
炭素貯蔵の拡大、吸収源の維持・増進に貢献し、
社会とともにカーボンニュートラルの実現をめざします。



自然との共生

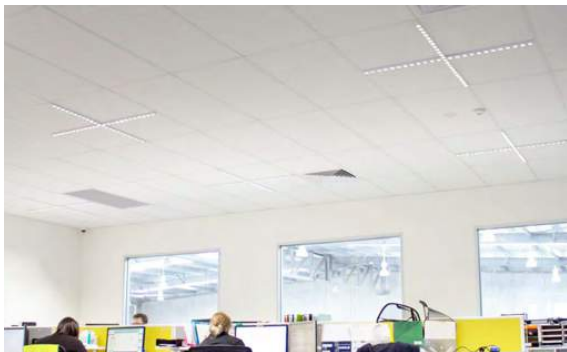
ー 生物多様性の保全 ー

生物多様性に配慮し、
環境の負荷低減、保全、修復への貢献により、
生態系が果たした持続可能な自然環境との
共生をめざします。

大塚工業グループは、2050年に向け、資源循環の推進、気候変動の緩和、自然との共生を通じて、持続可能な社会の実現をめざしていきます。

DAIKEN

Mineral Fibre Ceilings



PHONIC

Fiberglass Ceilings



100% New Zealand
Sheep Wool Panel



Contents

- I. Daiken CSR
- II. Company Introduction
- III. Product Performances
- IV. Exceltone MR General Information

Daiken Exceltone MR

- I. MF
- II. MCPS
- III. MD
- IV. MN
- V. MC
- VI. MV
- VII. MP
- VIII. MLC
- IX. Exceltone MR Hospitone
- X. Exceltone MR DL Series
- XI. Installation Guide

Phonic

- I. Phonic Absorb
- II. Phonic Clean
- III. Phonic Harmony +

FLOC

- I. FLOC Panel
- II. Installation Guide

COMPANY INTRODUCTION

Daiken Corporation, a company listed on the Osaka Securities Exchange & listed on the Nikkei Stock Exchange in Japan was incorporated in 1945.

Long before globally aware of the need for environmental preservation, Daiken has started to manufacture Eco Environmental products by using recycled materials where the products are also recyclable after used . Daiken successfully developed numerous outstanding materials & products, including insulation wood fiber board which effectively utilizes wood waste. Mineral fiber ceiling board EXCELSTONE for ceiling and wall paneling with “thermal insulation” and high acoustic performances, high-durability WPC products, the inorganic with high-performance Dailite board which is Eco environment-friendly which made from previously untapped natural raw material.

Daiken is working to develop activities for global environmental preservation in the production plants. The following is a list of our business division and affiliated companies with ISO 14001 & ISO 9001 Certification:-

Factories In Japan

- Okayama Factory
- Inami Factory
- Takahagi Factory
- Mie Factory */**

Overseas Factories

- Daiken Sarawak Sdn Bhd **
- Daiken Miri Sdn Bhd
- Daiken Industries (Ningbo) Corporation */**
- Daiken New Zealand Ltd *
- Daiken South Land Limited
- PT. Daiken Dharma Indonesia
- Pacific Woodtech USA

As a world-leading construction material manufacturer, Daiken Group has come to place great importance on consistent quality and further strengthening quality assurance at all of our production sites. We will continue to strive towards a sustainable future where people can enjoy pleasant living spaces and lead spiritually rich lifestyles.



*FSC/COC Certification
** PEFC/COC Certification





Excellent Performance

Outstanding Fire Resistance

Daiken mineral ceiling board is made by non-combustible & non-toxic materials. When contact with the fire, the ceiling tiles will not emit toxic gas, melt or deformed under normal fire conditions.



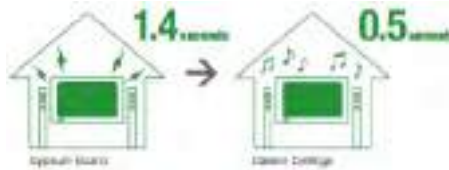
Humidity Control Ceilings

Daiken high performance Excel-Tone MR (Moisture Resistance) tiles can withstand conditions up to 50°C and 99% relative humidity.



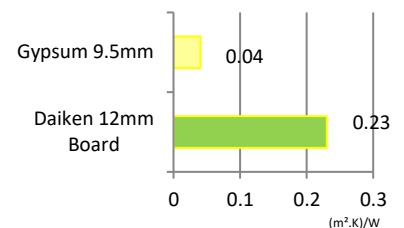
Sound Absorption

Daiken mineral ceiling board with superior sound absorption & excellent thermal insulation properties, creating a comfortable and quiet environment.



Effective Thermal Insulation

Thermal insulation material in the Daiken boards are against the heat 6 times better than gypsum board. Against the heat 6 times better than gypsum board. Which meant the AC in the office can cool the room faster and maintenance the constant temperature. This is very cost efficient & cost saving on the utility bill.



No Asbestos Contains

Daiken began developing eco-friendly materials 50 years ago in Japan. Therefore, all the Daiken Ceilings and building materials does not contain Asbestos in our products.



Light Reflectance Feature

Daiken Ceilings with excellent light reflectance properties & special paint are designed to reflect over 0.80% of the light striking the surface which also leads to cost-effective lighting, particularly when combined with indirect lighting.

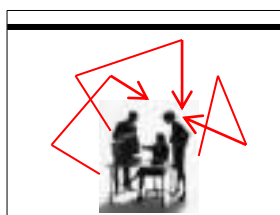
* Tested as per ASTM E1477-98



Noise Reduction Coefficient (NRC)

This measurement shows how much sound a material can absorb. This measurement is used to gauge materials that are created to absorb sound, rather than block it. NRC can also be viewed as a percentage of sound waves which come into contact with the sound absorptive NRC can also be viewed as a percentage of sound waves which come into contact with the sound absorbing materials and not reflected back into the room. Materials and not reflected back into the room.

*Tested as per ASTM C423



Ceiling Attenuation Class (CAC)

Rates a ceiling structure's efficiency as a barrier to airborne sound intrusion between two closed rooms. Low CAC is around 25, and high CAC is over 35.

Daiken mineral fiber board CAC is 36 by tested by *Australia Standards 2499. (Two Room Method)





Ceiling panels with outstanding humidity resistance.

EXCELTONE (MR series) performance prove super quality.

It is guaranteed for 10 years against visible sagging up to 50°C and 99% relative humidity.

EXCELTONE (MR series) HIGH NRC TYPE

Achieved superb high NRC value of 0.70 under ASTM C 423.

PHYSICAL DATA SUMMARY

Representative data of EXCELTONE MR series 5/8" MN.

Physical Properties		Test Method
Moisture Content	2%	JIS A 6301
Fire Propagation Test	Class 0	B.S.476 Part 6
Flame Spread	Class A (0-25)	ASTM E84
	0	Australian Standards 1530.3
	20	UL723
	Class 1	B.S.476 Part 7
Light Reflectance	Over 0.80	ASTM E1477
Sound Absorption Coefficient (NRC)	0.55	ASTM C423
Ceiling Attenuation Class (CAC)	32	ASTM E1414 ASTM E413

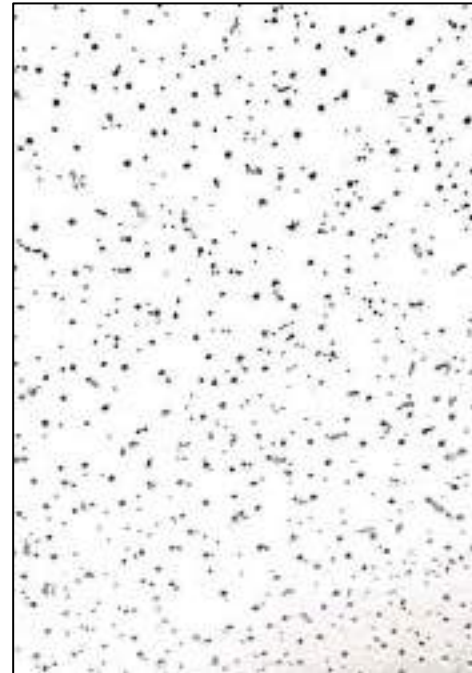
JIS: Japanese Industrial Standard



Data of EXCELTONE MR series 3/4"MS-NRC

Physical Properties		Test Method
Flame Spread	Class A	ASTM E84
Light Reflectance	Over 0.80	ASTM E1477
Sound Absorption Coefficient (NRC)	0.70	ASTM C423





KEY ATTRIBUTES

Features & Benefits:-

- Random pin perforated design idea for mid to high range Noise Reduction Coefficient (NRC) and medium Ceiling Attenuation Class (CAC) which help to reduce reverberation time and prevent sound transfer through ceiling plenum.
- Good light reflectance can increase the energy efficiency of a space
- Non-Asbestos
- 0% Formaldehyde
- Low VOC
- Excellent for mostly all the general commercial interior, school & healthcare centre.

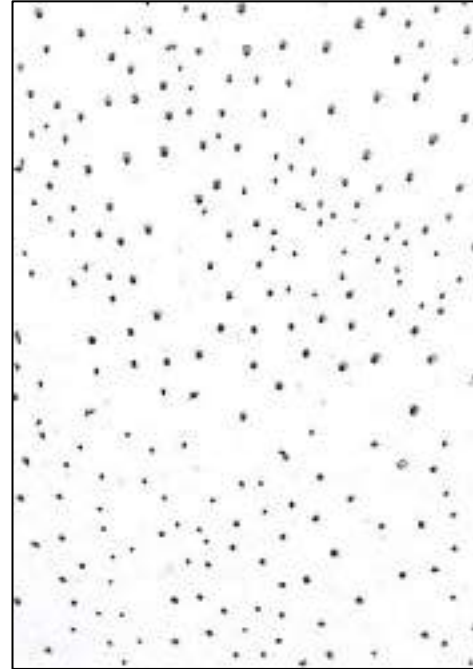
Applications:-

- Healthcare
- Schools
- Retail stores
- IT room
- Grade A Offices

Product Specification

EXCELSTONE MF	Nominal Thickness	Standard Size	Edges
Lay-in Board	1/2", 5/8"	24" X 24" (J.C) 24" X 48" (J.C) 600mm x 600mm (J.C) 600mm x 1200mm (J.C)	4 Sides: Trimmed
Semi-Concealed Board	15mm	400 x 1500mm 500 x 1500mm Customized Sizes	Long Sides: Kart and Rabbit, Square or Beveled Edge Short Sides: Trimmed
Shipap Board	15mm	400 x 1500mm 500 x 1500mm Customized Sizes	Long Sides: Shipap, Beveled Edge Short Sides: Trimmed
Reveal Board	5/8"	24" X 24" (J.C/R) 24" X 48" (J.C/R) 600mm x 600mm (J.C/R) 600mm x 1200mm (J.C/R)	4 Sides: Reveal
Narrow Reveal Board	5/8"	24" X 24" (J.C/NR) 24" X 48" (J.C/NR) 600mm x 600mm (J.C/NR) 600mm x 1200mm (J.C/NR)	4 Sides: Narrow Reveal

Note: Ceiling installed within temperature of 0°C to 50°C and relative humidity up to 99%



Surface Pattern: Pin Holes

KEY ATTRIBUTES




Features & Benefits:-

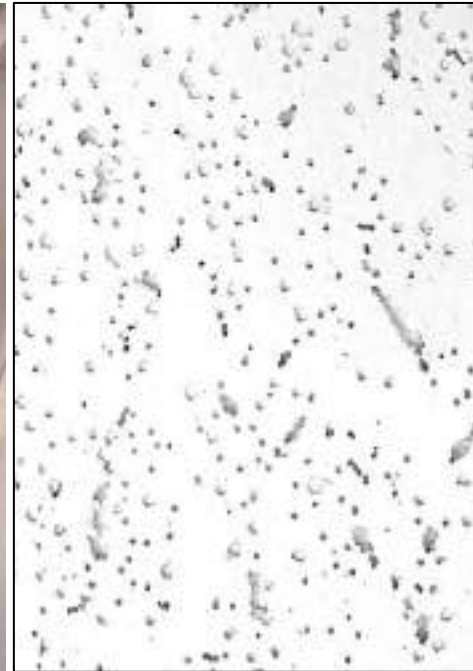
- Random pin perforated design idea for mid to high range Noise Reduction Coefficient (NRC) and medium Ceiling Attenuation Class (CAC) which help to reduce reverberation time and prevent sound transfer through ceiling plenum.
- Good light reflectance can increase the energy efficiency of a space
- Non-Asbestos
- 0% Formaldehyde
- Low VOC
- Excellent for mostly all the general commercial interior, school & healthcare centre.

Applications:-

- Healthcare
- Schools
- Retail stores
- IT room
- Grade A Offices

Product Specification

EXCELSTONE MR	Acoustic Thickness	Standard Size	Edges	Grid option
Log-in Board	1 1/2", 5/8"	24" X 24" (J.C.G) 24" X 48" (J.C.G) 600mm x 600mm (J.C.G) 600mm x 1200mm (J.C.G)	4 Sides: Trimmed 	T24 FIT-24
Reveal Board	5/8"	24" X 24" (J.C.GR) 24" X 48" (J.C.GR) 600mm x 600mm (J.C.GR) 600mm x 1200mm (J.C.GR)	4 Sides: Reveal 	T24 FIT-24
Narrow Reveal Board	5/8"	24" X 24" (J.C.GNR) 24" X 48" (J.C.GNR) 600mm x 600mm (J.C.GNR) 600mm x 1200mm (J.C.GNR)	4 Sides: Narrow Reveal 	T15 FIT-15



Surface Pattern: Travertine Delica

KEY ATTRIBUTES



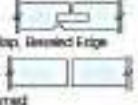

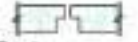
Features & Benefits:-

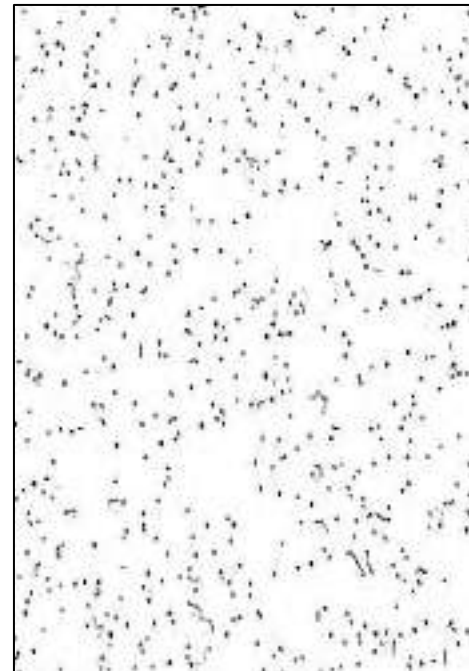
- Unique, fissure pattern with clean appearance, efficient installation.
- Economical, all-purpose ceiling pattern in various tile sizes.
- Excellent choice for large scale ceiling area.
- Semi-Concealed, Shiplap & Custom size are available
- Low VOC
- Non-Asbestos
- 0% Formaldehyde

Applications:

- Public Areas
- Retailers
- Schools / Libraries
- Café / Restaurants
- Department Store

Product Specification

EXCELTONIC MR	Nominal Thickness	Standard Size	Edges	Grid option
Lay-in Board	1/2", 5/8"	24" X 24" (Q.C) 24" X 48" (Q.C) 600mm x 600mm (Q.C) 600mm x 1200mm (Q.C)	4 Sides: Trimmed 	T24 PLS-24
Semi-Concealed Board	15mm	400 x 1500mm 500 x 1500mm Customized Sizes	Long Sides: Half and Rabbit, Square or Beveled Edge Short Sides: Trimmed 	T24
Shiplap Board	15mm	400 x 1500mm 500 x 1500mm Customized Sizes	Long Sides: Shiplap, Beveled Edge Short Sides: Trimmed 	T24
Reveal Board	3/8"	24" X 24" (Q.C)R 24" X 48" (Q.C)R 600mm x 600mm (Q.C)R 600mm x 1200mm (Q.C)R	4 Sides: Reveal 	T24 PLS-24
Narrow Reveal Board	5/16"	24" X 24" (Q.C)NR 24" X 48" (Q.C)NR 600mm x 600mm (Q.C)NR 600mm x 1200mm (Q.C)NR	4 Sides: Narrow Reveal 	T15 PLS-15



Surface Pattern: New NDF

KEY ATTRIBUTES

Features & Benefits:-

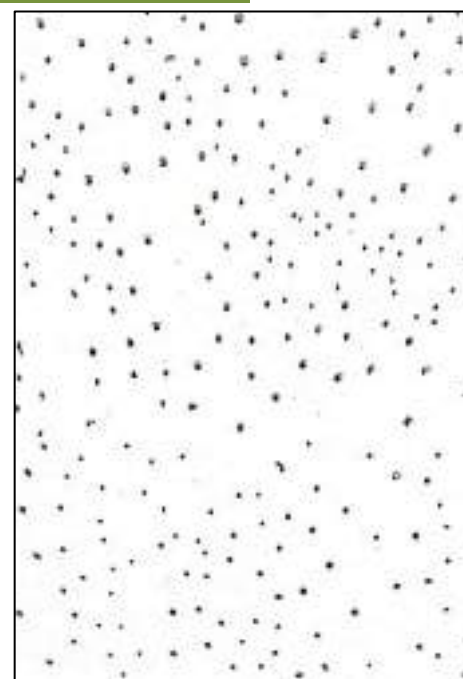
- Acoustic Suspended Ceiling tiles have a non direction fissured clean white surface and are ceiling contractors most favoured commodity panel due to their durability and ease of handling.
- Economical tile in the Daiken range to meet various applications.
- Good sound absorption on NRC and CAC.
- Less likely to emit gas or smoke, or melt, break or become deform under normal fire conditions.
- Semi-Concealed , Shiplap & Custom size are available
- Non-Asbestos
- Low VOC
- 0% Formaldehyde

Applications:

- Corridors / Hallways
- Classroom / Utilities Rooms
- Factory
- Warehouses
- Stairways

Product Specification

EXCELSTONE MN	Min. Panel Thickness	Standard Size	Edges	Grid system
Lay-in Board	1/2", 5/8"	24" X 24" (I.C.) 24" X 48" (I.C.) 600mm x 600mm (I.C.) 600mm x 1200mm (I.C.)	4 Sides: Trimmed	T34 FUT-24
Semi-Concealed Board	15mm	400 x 1500mm 500 x 1500mm Customized Sizes	Long Sides: Kert and Rabbit, Square or Beveled Edge Short Sides: Trimmed	T34
Shiplap Board	15mm	400 x 1500mm 500 x 1500mm Customized Sizes	Long Sides: Shiplap, Beveled Edge Short Sides: Trimmed	T34
Reveal Board	5/8"	24" X 24" (I.C.) 24" X 48" (I.C.) 600mm x 600mm (I.C.) 600mm x 1200mm (I.C.)	4 Sides: Reveal	T34 FUT-24
Narrow Reveal Board	5/8"	24" X 24" (I.C.) 24" X 48" (I.C.) 600mm x 600mm (I.C.) 600mm x 1200mm (I.C.)	4 Sides: Narrow Reveal	T35 FUT-15



Surface Pattern: Constellation

KEY ATTRIBUTES

Features & Benefits:-

- Random pin perforated design idea for mid to high range Noise Reduction Coefficient (NRC) and medium Ceiling
- Attenuation Class (CAC) which help to reduce reverberation time and prevent sound transfer through ceiling plenum.
- Good light reflectance can increase the energy efficiency of a space
- Non-Asbestos
- Low VOC
- 0% Formaldehyde
- Semi-Concealed , Shiplap & Custom size are available

Applications:

- Healthcare
- Schools
- Retail stores
- IT room
- Grade A Offices

Product Specification

EXCELSTONE MR	Minimal Thickness	Standard Size	Edges	Grid option
Lay-in Board	1/2" / 5/8" / 3/4" (High NRC)	24" X 24" (J.C.R) 24" X 48" (J.C.R) 600mm x 600mm (J.C.R) 600mm x 1200mm (J.C.R)	4 Sides: Trimmable	T34 FUT-24
Semi-Concealed Board	15mm	Customized Size width : 300 – 500mm length : 900 – 1500mm	Long Sides: Half and Rubber, Beveled Edge Short Sides: Trimmable	T34
Shiplap Board	15mm	Customized Size width : 300 – 500mm length : 900 – 1500mm	Long Sides: Shiplap, Beveled Edge Short Sides: Trimmable	T34
Recess Board	5/8"	24" X 24" (J.C.R) 24" X 48" (J.C.R) 600mm x 600mm (J.C.R) 600mm x 1200mm (J.C.R)	4 Sides: Recess	T34 FUT-24
	3/4" (High NRC)	600mm x 600mm (J.C.R) 600mm x 1200mm (J.C.R)	4 Sides: Bevel Recess	T34 FUT-24
Narrow Recess Board	5/8"	24" X 24" (J.C.R) 24" X 48" (J.C.R) 600mm x 600mm (J.C.R) 600mm x 1200mm (J.C.R)	4 Sides: Narrow Recess	T15 FUT-15



Surface Pattern: New Venus

KEY ATTRIBUTES

Features & Benefits:-

- Acoustic Ceiling tiles have an appealing stipple texture with a scattered micro pinhole finish.
- High Light Reflectance surface (LR-0.82) to reduce light fixtures which able to increase the energy efficiency of a space.
- Excellent choice for large scale ceiling area.
- Semi-Concealed , Shiplap & Custom size are available
- Non-Asbestos
- Low VOC
- 0% Formaldehyde

Product Specification

EXCELTYDVC HLT	Normal Thickness	Standard Size	Edges	Grid option
Lay-in Board	1/2", 5/8"	24" x 24" (0.4) 24" x 48" (0.4) 600mm x 600mm (0.4) 600mm x 1200mm (0.4)	4 Sides Titrated	T24 FUT-24
Panel Board	5/8"	24" x 24" (0.4) 24" x 48" (0.4) 600mm x 600mm (0.4) 600mm x 1200mm (0.4)	4 Sides Flaved	T24 FUT-24
Panel Board	5/8"	24" x 24" (0.4) 24" x 48" (0.4) 600mm x 600mm (0.4) 600mm x 1200mm (0.4)	4 Sides Mirror Flaved	T15 FUT-15

Applications:

- Schools
- Music Studio
- Auditorium
- Banks
- Boardroom
- Call Centres
- Live Radio broadcasting Station



Surface Pattern: Plain

KEY ATTRIBUTES

Features & Benefits:-

- Non-fissured, with a smooth white painted surface.
- This is a favoured tile with contractors due to its robust dust free friendly nature.
- It is suitable for use in offices, shops and other commercial interiors where a white monolithic look is desired
- Non-Asbestos
- Low VOC
- 0% Formaldehyde

Product Specification

EXCUTTING MIT	Neutral Thickness	Standard Size	Edges	Grid option
Lay-in Board	1/2", 5/8"	24" X 24" (I.Q.) 36" X 36" (I.Q.) 600mm x 600mm (I.Q.) 600mm x 1200mm (I.Q.)	4 Sides: Trimmed	T24 PLF-24
Reveal Board	5/8"	24" X 24" (I.Q.R) 24" X 48" (I.Q.R) 600mm x 600mm (I.Q.R) 600mm x 1200mm (I.Q.R)	4 Sides: Reveal	T24 PLF-24
Narrow Reveal Board	5/8"	24" X 24" (I.Q.NR) 24" X 48" (I.Q.NR) 600mm x 600mm (I.Q.NR) 600mm x 1200mm (I.Q.NR)	4 Sides: Narrow Reveal	T18 PLF-15

Applications:

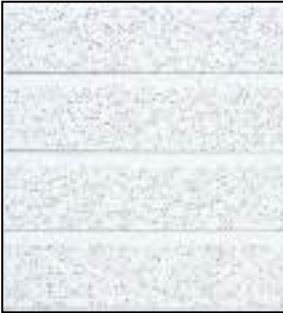
- Boutiques
- Supermarket
- Café / Restaurants
- Nursery
- Reception
- Changing room
- Dental Care Unit



MLC 10MN



MLC 20MN



MLC 40MN



MLC 41MN

KEY ATTRIBUTES

Features & Benefits:-

- Daiken Co-Ordinate Series Mineral Fibre Acoustic ceiling tiles have a white non-directional fissured scored board surface. This tile is a higher range product with good detailing, recommended for commercial application where a point of difference is required.
- The Co-Ordinate tile has a medium Noise Reduction Coefficient (NRC) and medium Ceiling Attenuation Class (CAC) to prevent sound transfer through the ceiling plenum.
- Non-Asbestos
- Low VOC
- 0% Formaldehyde

Product Specification

EXCELSTONE MFC	Nominal Thickness	Standard Size	Profile	Grid system
Reveal Board	5/8"	24" x 24" (600mm x 600mm) 24" x 48" (600mm x 1200mm) 48" x 24" (1200mm x 600mm)	4 Sides: Reveal	T34 PLUS24

Applications:-

- Restaurant
- Offices
- Cinema
- Schools
- Department Stores



EXCELSTONE (DL series)

– Antibacterial and deodorant treatment are available in EXCELSTONE (DL series)

Anti-bacterium examination result

Bacteria	Specimen	Viable bacteria count / specimen (24 hours later)
Escherichia coli (3.8×10^4)	regular tile (non-Anti-bacterium coating)	1.1×10^2
	Anti-bacterium coating	<10
	bacteria specimen	2.8×10^6
Pseudomonas aeruginosa (4.5×10^4)	regular tile (non-Anti-bacterium coating)	7.8×10^6
	Anti-bacterium coating	10
	bacteria specimen	2.2×10^6
MRSA methicillin resistant staphylococcus aurei (3.8×10^4)	regular tile (non-Anti-bacterium coating)	10
	Anti-bacterium coating	<10
	bacteria specimen	1.2×10^6

Test Method : drop each bacteria on specimen and stock - culture 24 hours at 38°C and measure the bacteria count.
Tested by Japan Food Research Laboratories.

border tiles of EXCELSTONE (DL series)



RIB 101

RIB 108

RIB 341

RIB 361

Travertine
Border
(9mm &
12mm)

EXCELTONE (DL series)

– Double Layer / Tongue & Groove System

KEY ATTRIBUTES

Features & Benefits:-

- EXCELTONE (DL series) is a high density tongue and groove mineral ceiling tile with a white painted beautiful designed for direct fix applications to new and existing gypsum board or timber battens.
- This negates the need for an exposed grid enhancing its highly visual appeal. No additional painting required.
- EXCELTONE (DL series) is a mid-range tile with superior noise absorption and efficient thermal insulation (more than 6 times of gypsum board), while resisting sound transmission more effectively than glass products.
- Due to its high density and ne grained substrate, Daiken can achieve unique and high quality detailing in their tiles. These tiles have outstanding re resistance.
- With invisible ceiling grid, concealed appearance and can integrate service installations such as lighting, ventilation and smoke detectors.
- Non-Asbestos
- Low VOC
- 0% Formaldehyde

Applications:

- Banks
- Hotels
- Ballrooms
- Childcare Centres
- Laboratories
- Hospitals
- Redecoration
- Auditorium
- Gymnasiums
- Residential

Exceltone (DL Series)

EXCELTONE DL	Adhesive and Nails Tile				
Nominal Thickness	12mm, 15mm, 19mm (6mm or 12mm base)				
Standard Size	300 x 600mm				
Edges	12mm	RIB 101		RIB 361	
		RIB 101		RIB 181	
	15mm	RIB 341		RIB 361	
		19mm	RIB 101		RIB 101A12
	RIB 361			RIB 361A12	

Thickness Specification

1) 12mm base + RIB

19mm	300 x 600mm	RIB 101A12, 361A12
------	-------------	-----------------------

2) 9mm base + RIB

12mm	300 x 600mm	RIB 101, 361
15mm	300 x 600mm	RIB 101, 181, 341, 361
19mm	300 x 600mm	RIB 101, 361

DISCLAIMER

PLEASE READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION

These guidelines are provided in good faith to help prevent installation problems caused by common errors. The manufacturer and/or distributor of the product bears no responsibility for installation actions taken or not taken. There are many nuances of installation that are assumed to be general construction knowledge to an experienced installer; such nuances are not included in these instructions. Rather, these installation guidelines are strictly recommendations and are not intended to serve as a step-by-step, foolproof installation checklist. Selection of an experienced installer is the sole responsibility of the project owner and architect. Daiken Corporation does not accept any responsibility for job failure resulting from or associated with improper job site environmental conditions.

GENERAL INFORMATION

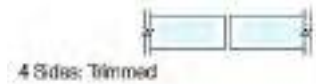
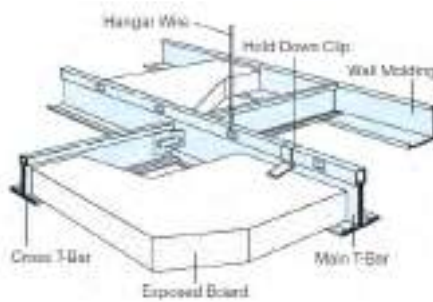
Safety Information

WHEN CUTTING OR DRILLING, ALWAYS WEAR PROTECTIVE GLASSES OR GOGGLES AND A FACE MASK WHICH COVERS THE FACE AND MOUTH. Itching / allergy due to dust or fibre may be avoided by the use of barrier creams on exposed skin areas. Hearing protection is also recommended when using power tools.

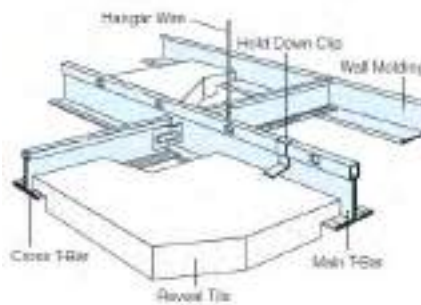


Installation Guide

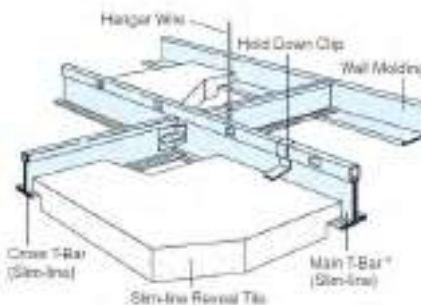
Exposed System



Revealed System



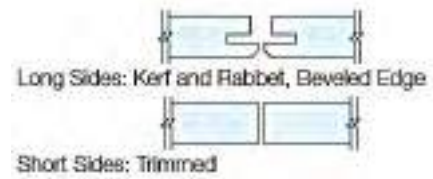
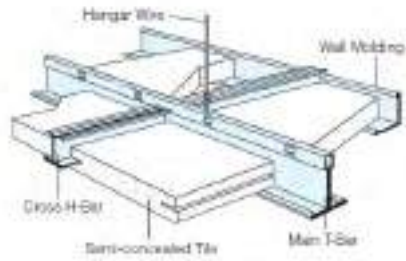
Slim-Line Reveal System



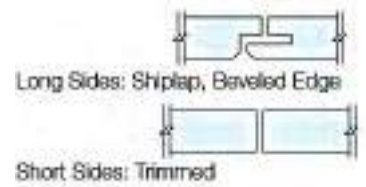
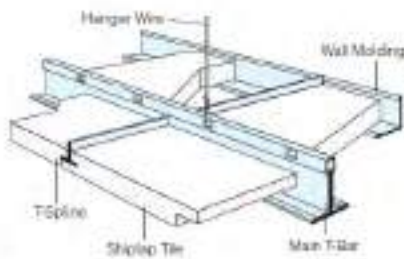
*Slim-Line T-Bar is also available

Installation Guide

Semi-Concealed System



Shiplap System



NOTES FOR INSTALLATION

Trouble-free installation, satisfactory ceiling finish and the long life of DAIKEN mineral acoustical materials can be ensured by observing the following recommendations.

JOB SITE STORAGE

DAIKEN mineral acoustical materials should be stored in a dry and clean area protected from possible damage by rain, snow, and excessive moisture. If these acoustical materials are exposed to large variations of humidity or temperature, swelling and shrinkage can result. The acoustical materials should be also be protected against possible impacts and abrasions and kept at least one meter away from walls.

Stack the materials flat on a level floor with protective panels or sheets between the materials and the floor.

HANDLING

Acoustical materials should be handled with care to prevent impact or damage to edges, ends and surface.

Handle these materials with clean hands or gloved hands.

INSTALLATION CONDITIONS

- Allow wet work, such as plaster and concrete work, to dry completely.
- Water-proofing and flashing work should be completed. Windows and doors should be in place and glazed.
- Conduits and duct work should be completed.
- Care should be taken to place air-conditioning vents and other mechanical fixtures conveniently within the suspension system.
- Installation should be done when relative humidity is not greater than 80%. (except EXCELSTONE MR series in thickness of 5/8" and 3/4"). Avoid installing the materials if relative humidity exceeds 80%. Daily checks of humidity conditions during the installation period are suggested.
- There should be adequate ventilation in the installation area if the building is new and humid conditions prevail. Before beginning installation, make certain that there is no condensation on the wall surfaces. Also, the heating system should be operating if the weather or installation area is particularly cold.
- Damaged or soiled materials should be replaced.

INSTALLATION

Installation should be in accordance with our specifications and recommendations.

GENERAL MAINTENANCE

CLEANING:

Dust and loose dirt can be easily removed with a brush or a vacuum cleaner. Take care to clean in one direction only. This will prevent dust from being rubbed into the surface. An alternative method of cleaning is with a moist cloth or a sponge dampened in soapy water. The sponge should be wrung dry. Use gentle strokes to wipe surfaces. After washing, the soapy film should be wiped off with a cloth or sponge slightly dampened in clean water.

REPAINTING:

DAIKEN mineral acoustical materials can be repainted by spraying, brushing, or roll coating without appreciable loss of acoustical efficiency. Dust and dirt should be thoroughly removed from the ceiling surface before repainting. Care should be taken to avoid applying paint thick enough to cover the perforations or fissures in the material. It is a good idea to test the paint on a small area or on a scrap of material, or surface stains bleed through the paint film, choose another paint. Regardless of the method of paint application employed, a good grade of paint from a reputable manufacture should be used. Acrylic, vinyl, latex, or alkylid paint for interior use may be applied.

SELECTING LIGHTING

When selecting any type of lighting, it is always advisable to consider the effect it will have on the appearance of an acoustical ceiling. The most functional of all types of lighting is the flush, recessed fixture commonly used with suspended acoustical ceilings. Where light from fixture, cove lights or high windows strikes the surfaces at a shallow angle, even slight unevenness of joints may result in unsatisfactory appearance. Under such conditions beveled edge materials should be used in preference to square edge materials, and should be installed with considerable care.

SPECIFICATION GUIDE

I SCOPE

- The installation of all acoustical work covered in this section shall be a qualified acoustical contractor.
- The acoustical contractor shall furnish all labor, materials and equipment necessary to complete the acoustical work in accordance with this section of the specifications and the applicable drawings.
- Substitutions will not be permitted for materials and method covered in this section.

II GENERAL CONDITIONS

- DAIKEN mineral acoustical materials shall not be used as support for or carry the loading of additional insulation, lighting, fixtures, etc.
- The acoustical contractor shall be responsible for the examination and acceptance of all surfaces and conditions affecting the proper installation of this materials, and shall not proceed until all unsatisfactory conditions have been corrected by others.
- All acoustical materials shall be installed by accepted installation practices.

III INSTALLATION

- The acoustical contractor shall furnish and install DAIKEN mineral acoustical materials in strict accordance with DAIKEN's recommendations in order to provide a satisfactory installation.
- The acoustical contractor shall furnish and install the metal suspension system as manufactured by (specified manufacture) in strict accordance with the manufacture's recommendations in order to provide a satisfactory installation.

IV ACOUSTICAL MATERIALS

Lay-in Board:

- The acoustical material shall be mineral fiber Exposed Board as manufactured by DAIKEN Corporation, Japan.
- The surface pattern shall be (specify pattern) with a dimension of (x x mm); all four edges shall be trimmed to be installed by an approved exposed T-BAR suspension system.
- The acoustical materials shall be manufactured by the wet felting process, with a factory applied Emulsion white paint finish having a light reflectance of 75% or more, or with a DAIKEN original color.
- The acoustical material shall have sound absorption coefficients of () and transmission losses of ().

SEMI-CONCEALED TILE:

- The acoustical material shall be mineral fiber Semi-Concealed Tile as manufactured by DAIKEN Corporation, Japan.
- The surface pattern shall be (specify pattern) with a dimension of (x x mm); two longer sides shall be kerf and rabbet, beveled/squared, and the two shorter sides trimmed to be installed by an approved Semi-Concealed T-BAR system.
- The acoustical materials shall be manufactured by the wet felting process, with a factory applied washable white paint finish having a light reflectance of 75% or more, or with a DAIKEN's original color.
- The acoustical material shall have sound absorption coefficients of () and transmission losses of ().

SPECIFICATION GUIDE

SHIPLAP TILE:

- A. The acoustical material shall be mineral fiber Shiplap Tile as manufactured by DAIKEN Corporation, Japan.
- B. The surface pattern shall be (specify pattern) with a dimensions of (x x mm); the two longer sides shall be shiplapped, beveled edges and the two shorter edges trimmed to be installed by an approved shiplap T-BAR system.
- C. The acoustical material shall be manufactured by the wet-felting process, with a factory applied washable white paint finish having a light reflectance of 75% or more, or with a DAIKEN original color.
- D. The acoustical material shall have sound absorption coefficients of () and transmission losses of ().

REVEALED TILE:

- A. The acoustical material shall be mineral fiber Reveal Tile as manufactured by DAIKEN Corporation, Japan.
- B. The surface pattern shall be (specify pattern) with a dimensions of (x x mm); all four edges shall be revealed to be installed by an approved recessed suspension system.
- C. The acoustical material shall be manufactured by the wet-felting process, with a factory applied washable white paint finish having a light reflectance of 75% or more, or with a DAIKEN original color.
- D. The acoustical material shall have sound absorption coefficients of () and transmission losses of ().

NALLOW REVEAL TILE:

- A. The acoustical material shall be mineral fiber Narrow reveal board as manufactured by DAIKEN Corporation, Japan.
- B. The surface pattern shall be (specify pattern) with a dimensions of (x x mm); all four edges shall be narrow reveal, squared to be installed by an approved recessed suspension system.
- C. The acoustical material shall be manufactured by the wet-felting process, with a factory applied washable white paint finish having a light reflectance of 75% or more, or with a DAIKEN original color.
- D. The acoustical material shall have sound absorption coefficients of () and transmission losses of ().

ADHESIVE & NAILS TILE:

- A. The acoustical material shall be mineral fiber Adhesive & Nails Tile as manufactured by DAIKEN Corporation, Japan.
- B. The surface pattern shall be (specify pattern) with a dimensions of (x x mm); all four edges shall be squared, bevel/square edge, to be installed by an approved adhesive & nails system.
- C. The acoustical material shall be manufactured by the wet-felting process, with a factory applied washable white paint finish having a light reflectance of 75% or more, or with a DAIKEN original color.
- D. The acoustical material shall have sound absorption coefficients of () and transmission losses of ().

GUARANTEE OF EXCELSTONE MR series

DAIKEN Corporation guarantees that "EXCELSTONE MR series Mineral Fiber Ceiling Board in thickness of 5/8" & 3/4" shall have neither sagging nor warping over allowable limits and it is warranted to be free of defects directly attributed to the manufacturing faults for the period of 10 years from the date of installation of ceiling board as long as the material is installed and maintained under the conditions set forth below: Size and pattern should be inquired to DAIKEN Corporation, International Trade Division Tokyo.

1. The ceiling board shall be installed by approved ceiling contractor by us in compliance with DAIKEN's specifications and installation conditions.
2. Installation shall be done in areas free from excessive humidity, chemical fumes, freezing temperature and vibration.
3. Installation shall be done under the conditions of the temperature and relative humidity ranges 10 to 50°C and 0 to 95% respectively. After the installation, the environmental conditions shall be controlled within the said limits.
4. The ceiling board shall not be affected with direct moisture such as leaks or condensation during and after installation.
5. The ceiling board shall not be used to support any other materials.
6. The ceiling board shall be mechanically suspended properly and shall not be cemented or glued to the surface of any other materials.
7. Prior to installation the ceiling board shall be stored in a dry and clean area, enclosed and protected from possible damages by rain, snow, and excessive moisture, and also protected from possible impacts and kept at least one meter off walls. Stack the ceiling boards flat on the floor level with protective panels or sheets between the ceiling boards and the floor.

In spite of the observance of the above conditions, should there be any sagging or warping, it must be informed in a written notice to DAIKEN Corporation, International Trade Division in Tokyo within 30 days after first observed such fact. After inspection and survey of the case and recognized, DAIKEN Corporation shall furnish new material for replacement in the same or similar specification and the equal quantity which is acknowledged by DAIKEN Corporation to be sagged or warped.

The furnishing of such ceiling board for the replacement shall constitute the total liability of DAIKEN Corporation, and DAIKEN Corporation shall not be responsible for any installation or replacement costs, or for incidental or consequential damages of any nature whatsoever.

High NRC Fibreglass Ceilings



PHONIC ABSORB

High Performance Acoustic Ceiling Tile



High Absorption



Lightweight
Tile



Hygrothermal



Glasswool



Hygiene



Fire Test Group-1S




PRODUCT SUMMARY

Phonic Absorb is a glass wool tile with a refined white painted, monolithic, pre-finished face:

- High Noise Reduction Coefficient (NRC) efficiently reduces Reverberation Time.
- Mid-range tile suitable for exhibit halls, museums, medical centers, offices, classrooms, receptions, meeting rooms and other commercial interiors.
- Phonic Absorb is also available in black. Can be matched with black Daiken Grid for a sleek and sophisticated ceiling. Can also be integrated with black GridLux lights.
- Tested to the principal requirements in accordance 14644.1:2015 and ISO 14644.3:2015 and the tile meets Cleanroom ISO Class 3.
- Constructed from 90% dry felt resin bonded glass-wool, utilizing longer fibers in a more compact fiber arrangement. This non-absorbent, non-water-soluble design gives Phonic Absorb improved durability when compared to mineral fiber.
- The high-density glass-wool tile achieves a density of 100kg/m^3 . This results in a light weight, high performance ceiling tile which is user friendly and ideal for use in large spaces. It won't sag or pillow.

PHONIC ABSORB

High Performance Acoustic Ceiling Tile

GENERAL TEST DESCRIPTION	RESULT	TEST METHOD
Light Reflectance	LR 87% +	ASTM E1477-98
Density	100kg/m ³	
Fire Test - ISO 5660 Part1	Group 1-S 	Cone Calorimeter NZBC C/VM2 Appendix A
Cleanroom	ISO Class 3	ISO 14644.3:2015
Moisture Rate	≤ 1 %	JC/T 670 – 2005
Thermal Resistance	≥ 0.4 (m ² ·k/w)	ASTMC 423

Size:

15mm, 20mm* Thickness 30mm & 40mm thick panel (Intend Item)



Square Edge / Revealed Edge


Colour: White / Black

This tile comes with a 10-year warranty to withstand conditions up to 40° and 99% relative humidity without visible sag. Tiles should be installed in accordance with NZS1170.5 and the grid manufacturer's instructions

PHONIC ABSORB

High Performance Acoustic Ceiling Tile

15mm DATA	RESULT	TEST METHOD
Absorption (ISO 354)	NRC 0.85	ASTM C423
	SAA 0.94	ASTM C423
	α_W 0.80	ISO 11654: 1997
Attenuation (ASTM E1414-11A)	CAC 22	ASTM E413-10
Fire Test - ISO 5660 Part1	Group 1-S	Cone Calorimeter
		NZBC C/VM2 Appendix A
Weight	1.5kg per m ²	
Est R Value	R0.4	
Edge Detail		

20mm TEST DATA	RESULT	TEST METHOD
Absorption (ISO 354)	NRC 0.90	ASTM C423
	SAA 1.02	ASTM C423
	α_W 0.90	ISO 11654: 1997
Attenuation (ASTM E1414-11A)	CAC 23	ASTM E413-10
	D _{new} 23	ISO 717-1
Weight	2.0kg per m ²	
Est R Value	R0.5	
Edge Detail		

PHONIC CLEAN

Acoustic Hygiene Ceiling Tile



High Absorption



Hygiene



Hygrothermal



Lightweight Tile



Fire Test- Group 1S



Glasswool




PRODUCT SUMMARY

Phonic Clean is a hydrophobic treatment which can be applied to the Phonic range of ceiling tiles. It is a glasswool ceiling tile with a water-repellent, white painted, monolithic, pre-finished face.

- Suitable for use in medical center, hospitals, laboratories and other commercial interiors.
- Tested to the principal requirements in accordance 14644.1:2015 and ISO 14644.3:2015 and the tile meets Cleanroom ISO Class 3.
- Water repellent face; can be wiped and cleaned, won't allow moisture penetration. Wipeable and cleanable face; stains don't stick.
- Optional foil backing to allow positive pressure in ceiling plenum.
- High Noise Reduction Coefficient. Reduces reverberation time and improves speech intelligibility. This is very important for patient well-being. Good acoustics promote faster recovery times.
- Lightweight tiles is ideal for seismic design.

PHONIC CLEAN

Acoustic Hygiene Ceiling Tile

GENERAL TEST DESCRIPTION	RESULT	TEST METHOD
Absorption (ISO 354)	NRC 0.80	ASTM C423
(with foil backer)	SAA 0.87	ASTM C423
	α_W 0.75	ISO 11654:1997
Attenuation (ASTM E1414-11A)	CAC 26	ASTM E1477-98
	Dn,c,w 26	ISO 717-1
Light Reflectance	LR 84%+	ASTM E1477-98
Density	100kg/m ³	
Weight	15mm: 1.5kg/m ²	
Fire Test (ISO 5660 Part 1)	Group 1-S	Cone Calorimeter
		NZBC C/VM2 Appendix A
Cleanroom	ISO Class 3	ISO 14644.3:2015
Moisture Rate	≤ 1%	JC/T 670 – 2005
Thermal Resistance	≥ 0.4 (m ² ·k/w)	ASTM C 423

Antimicrobial

(any result <1000 is considered low)

Sample	Total Bacteria per 10cm ²	Total Actinomyces per 10cm ²	Total Yeast per 10cm ²	Total Fungi per 10cm ²
Tile 1	10 Staphylococcus aureus 100%	<10	<10	30 Cladosporium 50%, Penicillium 33%, Non-sporing fungus 17%
Tile 2	<10	<10	<10	30 Penicillium 100%

Est. R-Value (m²k/w)

15mm: R0.4

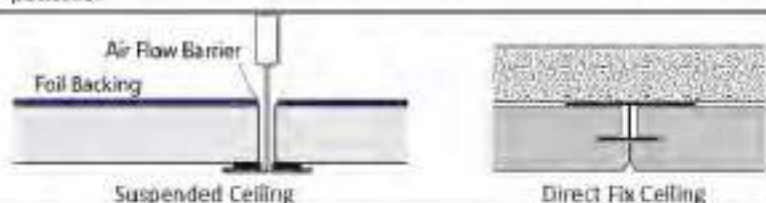
Colour

White

Size

Depth: 15mm, Square Edge, Concealed Edge, [1200 x 600], to suit 24mm grid patterns.

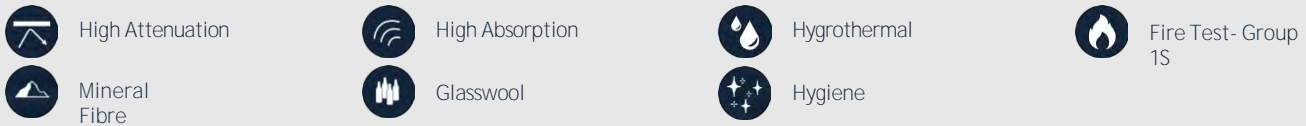
Edge Detail



* For Acoustic performance for different tiles, see the relevant Phonic datasheets. This test data shows 15mm with foil backer.

PHONIC HARMONY +

Acoustic Suspended Ceiling Tile



PRODUCT SUMMARY

Phonic Harmony + acoustic ceiling tiles have monolithic white face with a very subtle sandy fiber texture. The clean monolithic look is an ideal aesthetic choice for many commercial interior space requirements. The surface is specifically engineered to provide high absorption (NRC) to reduce reverberation time while the density of the mineral fiber provides good attenuation performance across the ceiling plenum. This versatile mineral fiber ceiling tile is able to meet most standard acoustic specifications.

- Fine, monolithic texture. High light reflectance.
- High sound absorption qualities, which reduces reverberation time, and a medium Ceiling Attenuation Class (CAC) to reduce sound transfer through the ceiling plenum. The absorbent face is made from a compounded, high density glass-wool.
- The attenuating backer reduces sound transfer over office partitions and reduces rain noise from roofing. It is a high performance ceiling tile which is user friendly and ideal for use in airports, offices, classrooms, boardrooms, museums and other commercial interiors. Mineral Fiber tiles are not only non-combustible, but also less likely to emit gas or smoke, or to melt, break or become deformed under normal fire conditions.
- Tested to the principal requirements in accordance 14644.1:2015 and ISO 14644.3:2015 and the tile meets Cleanroom ISO Class 3.

PHONIC HARMONY +

Acoustic Suspended Ceiling Tile

Sound absorption	Thickness 20 mm	α_w 0.70	NRC 0.70
Ceiling Attenuation Coefficient	Thickness 20 mm	CAC 35	
Fire Test	Thickness 20 mm	Class Group 1-S	
	*Tested to ISO 5660.1-2015 Reaction to fire tests – Heat release smoke production and mass loss rate part 1 (cone calorimeter).		
Cleanroom	Thickness 20 mm	Class 3	
	*Tested to the principal requirements in accordance ISO 14644.3:2015 and the tile meets Cleanroom Class 3.		
Sizes	Thickness 20 mm	1200 x 600 mm, 600 x 600 mm, 1200 x 300 mm*. To suit 15 or 24 mm grid patterns. *Available on indent.	
Weight			
Edge Details	Square edge, reveal edge		
Light Reflectance	LR 75% + *Tested to BS 8493:2008 standard test method.		
Colour	White		
Thermal Conductivity	≥ 0.045 (kcal/mh °C) (JIS A 1412)		
Relative Humidity	RH 99%		
Estimated R-Value (m²k/w)	R0.5		
Antimicrobial			
Sustainability	Made with 76% recycled content		
VOC	*Tested to ASTM D5116-06 standard test method.		
Warranty	10 Year product warranty to withstand conditions up to 50-99% relative humidity without visible sag.		





100% New Zealand Sheep Wool Panel



High Absorption



Lightweight



New Zealand Strong Wool



Fire Test Group-1S



PRODUCT SUMMARY

Premier acoustic panels made from needle punched New Zealand strong-wool. Floc harnesses the sustainable nature of wool, adding multiple health, wellness and acoustic benefits to commercial interior environments.


Floc harnesses the sustainable nature of wool, enhancing its performance for the built environment. At end of life it can be returned to the earth as the product is fully compostable. Made from 100% New Zealand born, grown and processed strong- wool, utilizing the by-product of shearing to create a sustainable wall lining.

- Patterns: Printed patterns available- provide project specific patterns.
- Offers the acoustic and wellness benefits of wool used in indoor environments.

**Due to the natural makeup of Floc, organic matter may be present.*



100% New Zealand Sheep Wool Panel

GENERAL TEST DESCRIPTION	RESULT	TEST METHOD
Absorption (Direct Fix) (ISO 354)	NRC 0.4 αW 0.3 SAA 0.54	ASTM C423-99 ISO 11654: 1997 ASTM C423
Fire Test - ISO 5660 Part 1	Group 1-S 	Cone Calorimeter NZBC C/VM2 Appendix A
British Standard 476	S (Fire Propagation Index): 4.9 Spread of Flame: Nil (Class 1)	BS 476 : Part 6 BS 476 : Part 7
Size	1.2 x 25.0m L/M Rolls and cut to length available on request.	
Weight	1.4kg/m ²	
Patterns	Printed patterns available- provide project specific patterns.	
Substrate Options	Can be fixed directly onto plasterboard, plywood and particle board using an environmentally friendly glue. Other options are available, talk to us to discuss these.	

EX STOCK COLOURS



NATURAL

GREEN

LIGHT GREY

MID GREY

DARK GREY



Headquarter:-

Daiken Corporation
Sumitomo Fudosan Akihabara Building,
3-12-8 Soto Kanda, Chiyoda-ku, Tokyo
101-8950, Japan
Tel : +81-3-6271-7650
Fax : (03) 5296-4048

Regional Office:-

Daiken Corporation (Singapore Branch)
No 8 Temasek Boulevard #43-01A
Suntec City Tower 3, Singapore 038988
Tel: 65 6297 1933
Fax: 65 6297 1636

