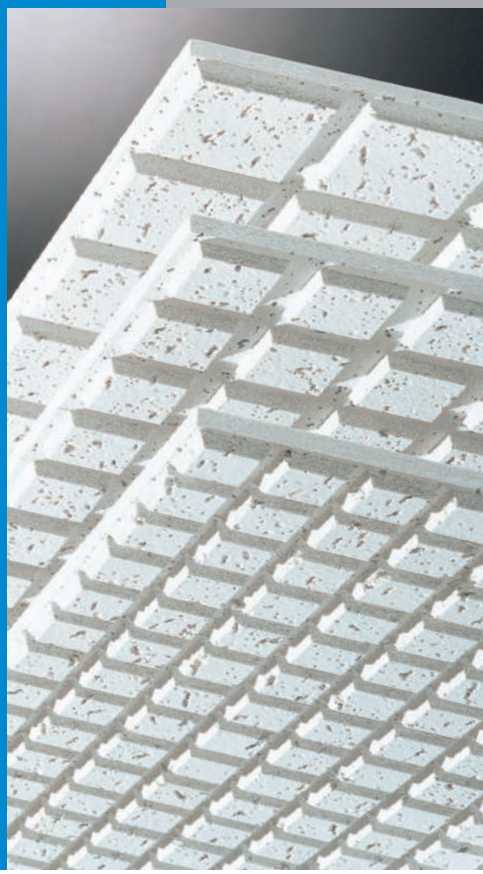


EXCELTONE (DL series)
– Double Layer / Tongue & Groove System

Key Attributes

Features & Benefits:-

- EXCELTONE (DL series) is a high density tongue and groove mineral fibre ceiling tile with a white painted finish 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 fibre products.
- Due to its high density and fine grained substrate, Daiken can achieve unique and high quality detailing in their tiles. These tiles have outstanding fire resistance.
- With invisible ceiling grid, concealed appearance and can integrate service installations such as lighting, ventilation and smoke detectors.
- Non-Asbestos

Applications:

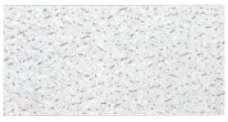
- Banks
- Hotels
- Ballrooms
- Childcare Centres
- Laboratories
- Hospitals
- Redecoration
- Auditorium
- Gymnasiums
- Residential


RIB 101


RIB 181

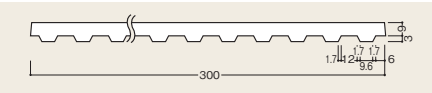
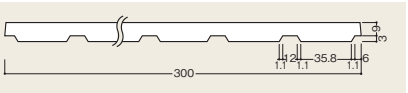
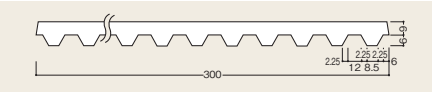
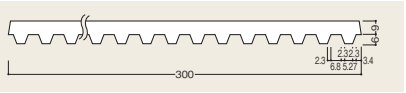
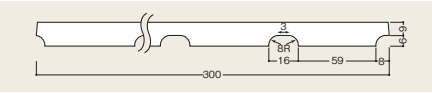
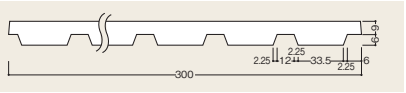
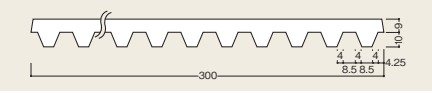
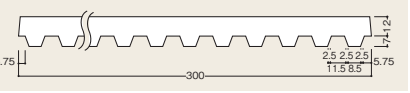
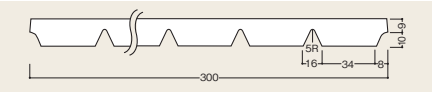
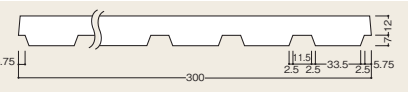

RIB 341


RIB 361


for border (9mm & 12mm)

DAIKEN

EXCELTONE (DL series)

EXCELTONE DL	Adhesive and Nails Tile		
Nominal Thickness	12mm, 15mm,19mm (9mm or 12mm base)		
Standard Size	300 x 600mm		
Edges	12mm	RIB 101 	RIB 361 
	15mm	RIB 101 	RIB 181 
		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

TOHO Cinemas Namba (Osaka Japan)

DAIKEN ORIGINAL COLORS

In 30 basic colors for EXCELTONE

DAIKEN "ORIGINAL COLOR"

Daiken "Original Color" is the special color of your choice which will be painted on EXCELTONE (DL series) in the factory.
30 colors are available to match with your building's image.
＊All products are manufactured after receipt of your order, so painting cost will be added to the product price.

DAIKEN

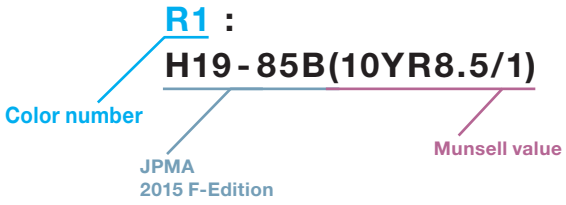
DAIKEN ORIGINAL COLORS In 30 basic colors for EXCELTONE

Cautions when ordering

- The Munsell value and the approximate color number by the Japan Paint Manufacturers Association indicated by each color are for reference only. Please note that orders using Munsell value and/or approximate color number by the Japan Paint Manufacturers Association are not accepted.
- Color chip numbers are distinguished by using the following classification:

Example R1: H19-85B(10YR8.5/1)

Please use color number (R1) to order.



Important

- The finished color painted on the EXCELTONE tiles varies from the color sample. Be sure to always check the painted actual sample.
- Please be noted that orders for custom colors are limited to the 30 EXCELTONE colors listed below, including brightness, saturation, and hue. Also in this case, be sure to always check the painted actual sample before ordering.

COLOR LIST

Hue \ color tone	W	P	LtGy • Ltg
R (red)	R1 : H19-85B(10YR 8.5/1)	—	—
YR (yellow red)	YR1 : H19-85C(10YR 8.5/1.5)	YR2 : H19-90D(10YR 9/2) / YR3 : H17-90D(7.5YR 9/2)	YR4 : H17-80D(7.5YR 8/2)
Y (yellow)	Y1 : H25-90C(5Y 9/1.5) / Y3 : H22-85F(2.5Y 8.5/3) / Y2 : H22-85D(2.5Y 8.5/2) / Y4 : H25-85C(5Y 8.5/1.5)	Y5 : H22-80D(2.5Y 8/2) / Y6 : H22-85H(2.5Y 8.5/4)	Y7 : H22-80H(2.5Y 8/4) / Y8 : H22-75D(2.5Y 7.5/2)
GY (green yellow)	GY1 : H25-85B(5Y 8.5/1) / GY2 : H29-85B(10Y 8.5/1)	GY3 : H25-80C(5Y 8/1.5)	—
G (green)	G1 : H32-90D(2.5GY 9/2)	G2 : H35-80D(5GY 8/2) / G3 : H35-80B(5GY 8/1)	—
B (blue)	B1 : H35-90B(5GY 9/1)	B2 : H45-80B(5G 8/1)	B3 : H65-70D(5B 7/2)
PB (purple blue)	—	PB1 : H35-85A(5GY 8.5/0.5) / PB2 : H55-85B(5BG 8.5/1)	—
P (purple)	P1 : H19-90B(10YR 9/1)	—	—
N (achromatic color)	N1 : H25-90B(5Y 9/1) / N2 : H22-85B(2.5Y 8.5/1)	N3 : H25-80A(5Y 8/0.5)	N4 : H25-75A(5Y 7.5/0.5) / N5 : HN70(N7)

EXCELTONE (DL series)

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

DAIKEN

Anti-bacterium examination result

Bacteria	Specimen	Viable bacteria count / specimen (24 hours later)
Escherichia coil (3.6 x 10^4)	regular tile (non-Anti-bacterium coating)	1.1×10^2
	Anti-bacterium coating	<10
	bacteria specimen	2.6×10^6
Pseudomonas aeruginosa (4.5 x 10^4)	regular tile (non-Anti-bacterium coating)	7.8×10^6
	Anti-bacterium coating	10
	bacteria specimen	2.2×10^6
MRSA mejishirin methicillin resistant staphylococcus aurei (3.8 x 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 36°C and measure the bacteria count.
Tested by Japan Food Research Laboratories.

border tiles of EXCELTONE (DL series)

Keihan Railway Kyobashi Station (Osaka Japan)

EXCELTONE (DL series)
– R Curve Ceiling

Features
“slits” or “slits + G.J.plates” at the back for curving tile

Tiles available
RIB type 12, 15 and 19mm
For border

DAIKEN

Type A/B

Type C

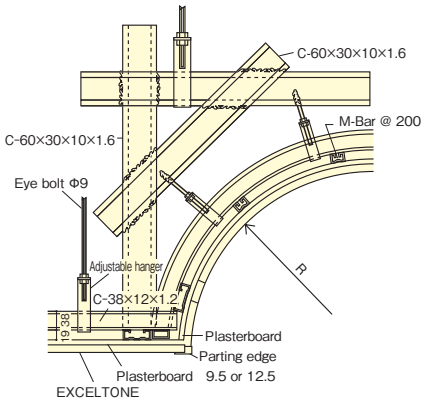
凸 convex curve

Type A : U-shape slits for curving short length (300mm)
Type B : U-shape slits + G.I.plates for curving short length (300mm)for shorter radius
Type C : U-shape slits for curving long length (600mm)

凹 concave curve

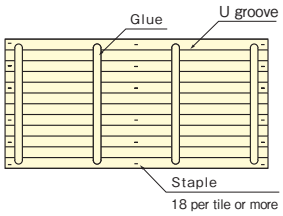
Type A : U-shape slits for curving short length (300mm)
Type B : U-shape slits + G.I.plates for curving short length (300mm) for shorter radius
Type C : U-shape slits for curving long length (600mm)

Cross-section of a construction



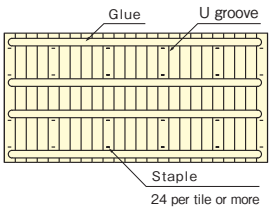
Gluing position, stapling position and number of staples

[Type A/B]



Do not staple the U-groove area and the galvanized sheet iron portion of Type B.

[Type C]



Do not staple the U-groove area.

Kansai University of Foreign Studies (Osaka Japan)

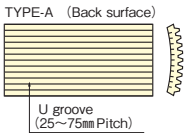
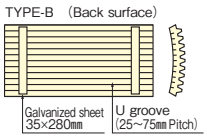
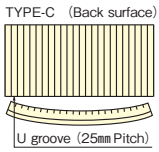
Keihan Railway Kyobashi Station (Osaka Japan)

OS cinemas M-INT KOBE (Hyogo Japan)

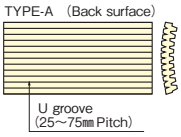
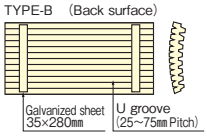
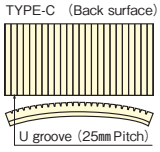
EXCELTONE (DL series)
– R Curve Ceiling Project References

DAIKEN

CONVEX CURVE

COVEX CURVE		CURVE SHORT LENGTH			CURVE LONG LENGTH	
TYPE		STANDARD TILE	 TYPE-A (Back surface)	 TYPE-B (Back surface)	STANDARD TILE	 TYPE-C (Back surface)
RIB19mm	101	R=3,000 or more	R=1,000 or more	R=800 or more	R=5,000 or more	R=4,000 or more
	361	R=3,000 or more	R=1,000 or more	R=800 or more	R=5,000 or more	(＊1)
	101A12	R=4,000 or more	R=1,000 or more	R=800 or more	R=6,000 or more	R=3,500 or more
	361A12	R=4,000 or more	R=1,000 or more	R=800 or more	R=6,000 or more	(＊1)
RIB15mm	101	R=3,000 or more	R=1,000 or more	R=800 or more	R=5,000 or more	R=3,500 or more
	361	R=3,000 or more	R=1,000 or more	R=800 or more	R=5,000 or more	(＊1)
	341	R=3,000 or more	R=1,500 or more	R= 1,000 or more	R=5,000 or more	(＊1)
RIB12mm	101	R=3,000 or more	R=1,000 or more	R=800 or more	R=5,000 or more	R=3,000 or more
	361	R=3,000 or more	R=1,000 or more	R=800 or more	R=5,000 or more	(＊1)
for border	12mm	R=3,000 or more	R=1,000 or more	R=800 or more	R=5,000 or more	R=2,000 or more
	9mm	R=2,500 or more	R=1,000 or more	R=800 or more	R=4,000 or more	R=1,500 or more

CONCAVE CURVE

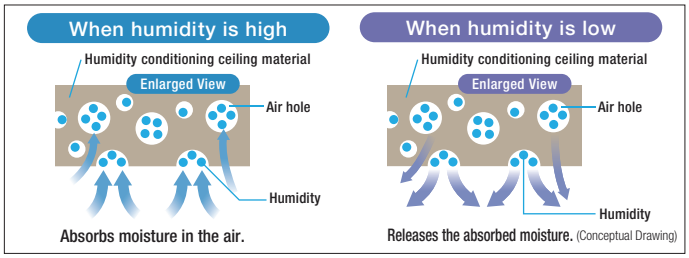
COVEX CURVE		CURVE SHORT LENGTH			CURVE LONG LENGTH	
TYPE		STANDARD TILE	 TYPE-A (Back surface)	 TYPE-B (Back surface)	STANDARD TILE	 TYPE-C (Back surface)
RIB19mm	101	R=3,000 or more	R=1,000 or more	R=500 or more	R=5,000 or more	R=4,000 or more
	361	R=3,000 or more	R=1,000 or more	R=500 or more	R=5,000 or more	(＊1)
	101A12	R=4,000 or more	R=1,000 or more	R=500 or more	R=6,000 or more	R=3,500 or more
	361A12	R=4,000 or more	R=1,000 or more	R=500 or more	R=6,000 or more	(＊1)
RIB15mm	101	R=3,000 or more	R=1,000 or more	R=500 or more	R=5,000 or more	R=3,000 or more
	361	R=3,000 or more	R=1,000 or more	R=500 or more	R=5,000 or more	(＊1)
	341	R=3,500 or more	R=1,200 or more	R=700 or more	R=5,000 or more	(＊1)
RIB12mm	101	R=3,000 or more	R=1,000 or more	R=500 or more	R=5,000 or more	R=2,000 or more
	361	R=3,000 or more	R=1,000 or more	R=500 or more	R=5,000 or more	(＊1)
for border	12mm	R=3,000 or more	R=1,200 or more	R=500 or more	R=5,000 or more	R=2,000 or more
	9mm	R=2,500 or more	R=1,000 or more	R=500 or more	R=4,000 or more	R=1,500 or more

U - shape slits in Type C is available only “linear type” RIB tile, 101 , 101A12.
＊1 Use “cross type” RIB tile in case curving long length (type C)

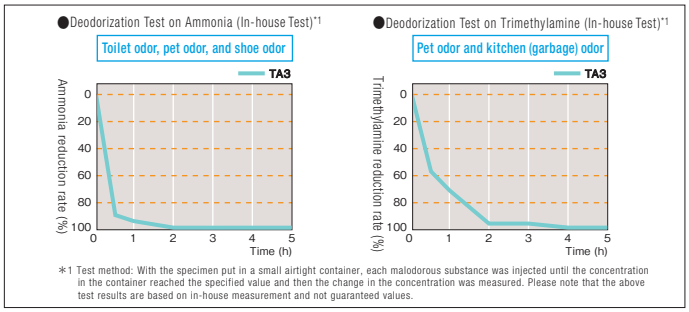
EXCELTONE (DL series)
– Healthy Ceiling TA3

＊The sound absorption coefficient value is based on the laboratory measurement.Measurements in actual sites vary depending on the structure and conditions.

■Stable Humidity Condition deliver refreshing space



■Deodorizing Effect to eliminate Major Odors in Daily Life, Such as Toilet Odor, Garbage Odor, and Pet Odor



＊1 Test method: With the specimen put in a small airtight container, each malodorous substance was injected until the concentration in the container reached the specified value and then the change in the concentration was measured. Please note that the above test results are based on in-house measurement and not guaranteed values.

■This product may be installed on cloth type of wallpaper's wall at home, etc, depending on the design plan and side condition.

Combined with sound absorption capability to suppress disturbing reverberations, humidity conditioning maintains comfortable humidity in housing.

■ Labels Related to Public Certifications and Industrial Associations

Formaldehyde Labeling Exempted Product | 4VOC Standards Compliant | Quasi -noncombustible | Humidity Conditioning Building Material

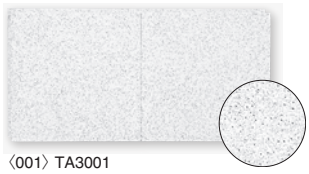
■ Premium Features

Low VOC | Deodorant | Humidity Conditioning | Formaldehyde Absorption | DAIKEN ECO

DAIKEN

EXCELTONE (DL series) – Healthy Ceiling TA3

FLAT

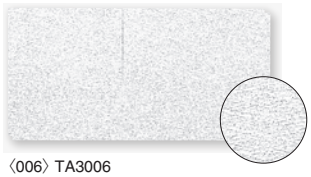

〈001〉 TA3001


〈002〉 TA3002


〈003〉 TA3003

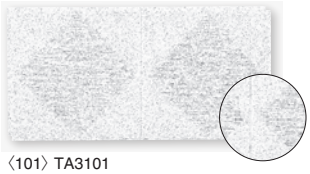

〈004〉 TA3004


〈005〉 TA3005


〈006〉 TA3006


〈007〉 TA3007

PATTERN


〈101〉 TA3101


〈102〉 TA3102


〈103〉 TA3103

RIB/GRID


〈201〉 TA3201


〈202〉 TA3202


〈203〉 TA3203

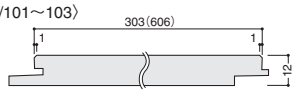

〈204〉 TA3204

Specifications

Dimensions	▷	12 mm thick, 303 x 606 mm
Packing material, quantity	▷	Cardboard case, 18 pieces (3.3㎡) per case
Base material	▷	Humidity conditioning rock wool acoustic board (12mm)
Surface finish	▷	Pinhole and rib processing (<201/202/203/204> only), emboss, and acrylic emulsion coating
Edge processing	▷	Tongue-and-groove joint on all sides
Certifications	▷	・Quasi-noncombustible material certified by the Minister of Land, Infrastructure, Transport and Tourism, QM-9817 ・Eco Mark certified product (recycled materials used, 53% slag) No. 08123013 ・Humidity conditioning building material, registered product name "Healthy and comfortable ceiling material DAI-LOTONE" (Humidity conditioning rock wool acoustic board (12mm)) Registration number: T08-0002 Registration agency: Japan Construction Material & Housing Equipment Industries Federation
Formaldehyde regulations	▷	Labeling exempted product

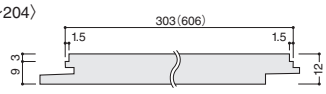
■Cross-sectional View The value in parentheses indicates the dimension on long sides.

〈001～007/101～103〉

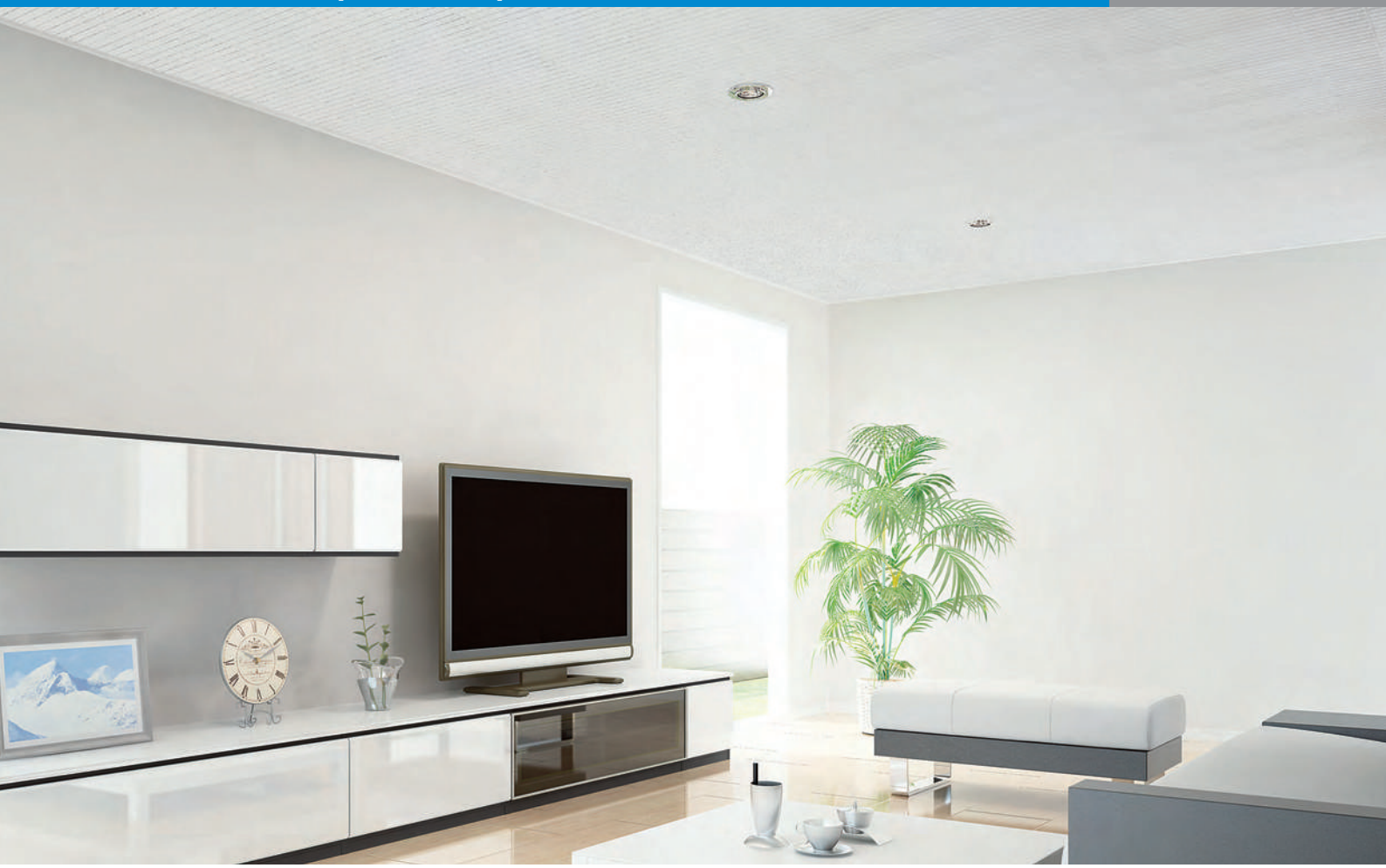


＊<FLAT>and <PATTERN>products are intended for installation on the entire ceiling and therefore have no striped.

〈201～204〉



＊ The performance values and the certification labels are based on the Japanese test method and standards.
＊ DAIKEN CORPORATION does not guarantee that the products listed here conform to the laws and regulations of the country or region where they are being used.



EXCELTONE (DL series)
– Healthy Ceiling TA4

Sound absorption feature is to soften unpleasant household sounds and indoor noise for ease of listening to TV sound and human voices in large living rooms, etc.

＊The sound absorption coefficient value is based on the laboratory measurement. Measurements in actual sites vary depending on the structure and conditions.

■ Sound Absorption Effect to Suppress Excessive Sound Reverberation for Ease of Listening to TV Sound and Human Voices

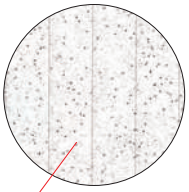
●Comparison of Reverberation Time Simulation Results (based on the sound absorption coefficient measurements on flooring)

When ceiling is finished with gypsum boards and vinyl cloth wallpaper
●Reverberation time: Approx. 1.4 s/500 Hz (in 20-mat tatami room)

When ceiling is finished with CLEARTONE
●Reverberation time: Approx. 0.6 s/500 Hz (in 20-mat tatami room)

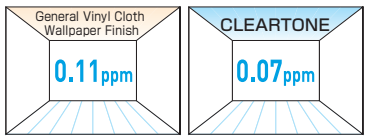
■ Pinhole-processed Surface for Enhanced Sound Absorption

TA4 <203>
Enlarged View



Pinhole-processed surface ensures superb sound absorption performance.

■ Comparison of Formaldehyde Absorption Performance Test Results*1



＊1 Environmental specifications for formaldehyde absorption test: Room temperature at 30℃, relative humidity at 50%, ventilation frequency 0.5 time/hour (in-house measurement), 6-mat tatami room, CLEARTONE 12S installation area rate 19%
＊Installation area rate: Installation area of the CLEARTONE 12S ceiling material divided by the entire surface area of room (including openings)

The measured test results in *1 are based on our laboratory measurement data and vary depending on installed furniture/interior equipment, temperature, airtightness, room size or plan, or other conditions.

■ Labels Related to Public Certifications and Industrial Associations

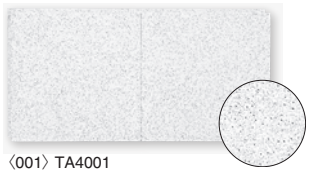
Formaldehyde Labeling Exempted Product | 4VOC Standards Compliant | Quasi-noncombustible

■ Premium Features

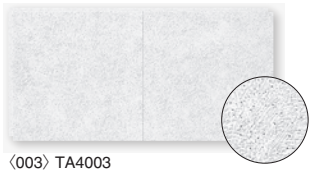
Low VOC | Formaldehyde Absorption | DAIKEN ECO

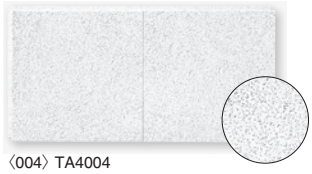
DAIKEN

FLAT

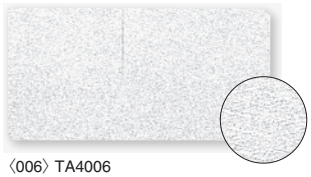

〈001〉 TA4001


〈002〉 TA4002


〈003〉 TA4003

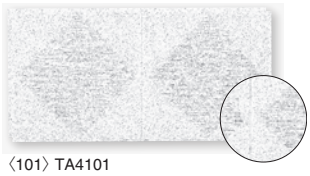

〈004〉 TA4004


〈005〉 TA4005


〈006〉 TA4006


〈007〉 TA4007

PATTERN


〈101〉 TA4101


〈102〉 TA4102


〈103〉 TA4103

RIB/GRID


〈201〉 TA4201

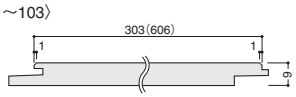

〈203〉 TA4203

Specifications

Dimensions	▷	9 mm thick, 303 x 606 mm
Packing material, quantity	▷	Cardboard case, 18 pieces (3.3 m^2) per case
Base material	▷	Rock wool acoustic board
Surface finish	▷	Pinhole and rib processing (<201/203> only), emboss (except for <201/203>), and acrylic emulsion coating
Edge processing	▷	Tongue-and-groove joint on all sides
Certifications	▷	・Quasi-noncombustible material certified by the Minister of Land, Infrastructure, Transport and Tourism, QM-9817 ・Eco Mark certified product (recycled materials used, 53% slag) No. 08123013
Formaldehyde regulations	▷	Labeling exempted product

■Cross-sectional View The value in parentheses indicates the dimension on long sides.

〈001～007/101～103〉



〈201/203〉

＊ The performance values and the certification labels are based on the Japanese test method and standards.
＊ DAIKEN CORPORATION does not guarantee that the products listed here conform to the laws and regulations of the country or region where they are being used.

EXCELTONE (DL series)
– Healthy Ceiling TA7

■Recommended for heavy user kitchen and Living Room Ceilings

Wipeable Ceiling Material

■Attractive Geometric Design to create stylish and beautiful ceiling.

Easy-to-clean. Just wipe the ceiling surface with neutral detergent,
recommended for heavy kitchen user.
TA7 features a refined geometric design.

■This product can be installed on cloth type of wallpaper's wall at home, etc.

■ Labels Related to Public Certifications and Industrial Associations

Formaldehyde Labeling Exempted Product | 4VOC Standards Compliant | Quasi-noncombustible

■ Premium Features

Low VOC | DAIKEN ECO

DAIKEN

TA7

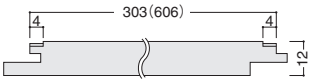
〈01〉 TA7101

〈02〉 TA7102

Specifications

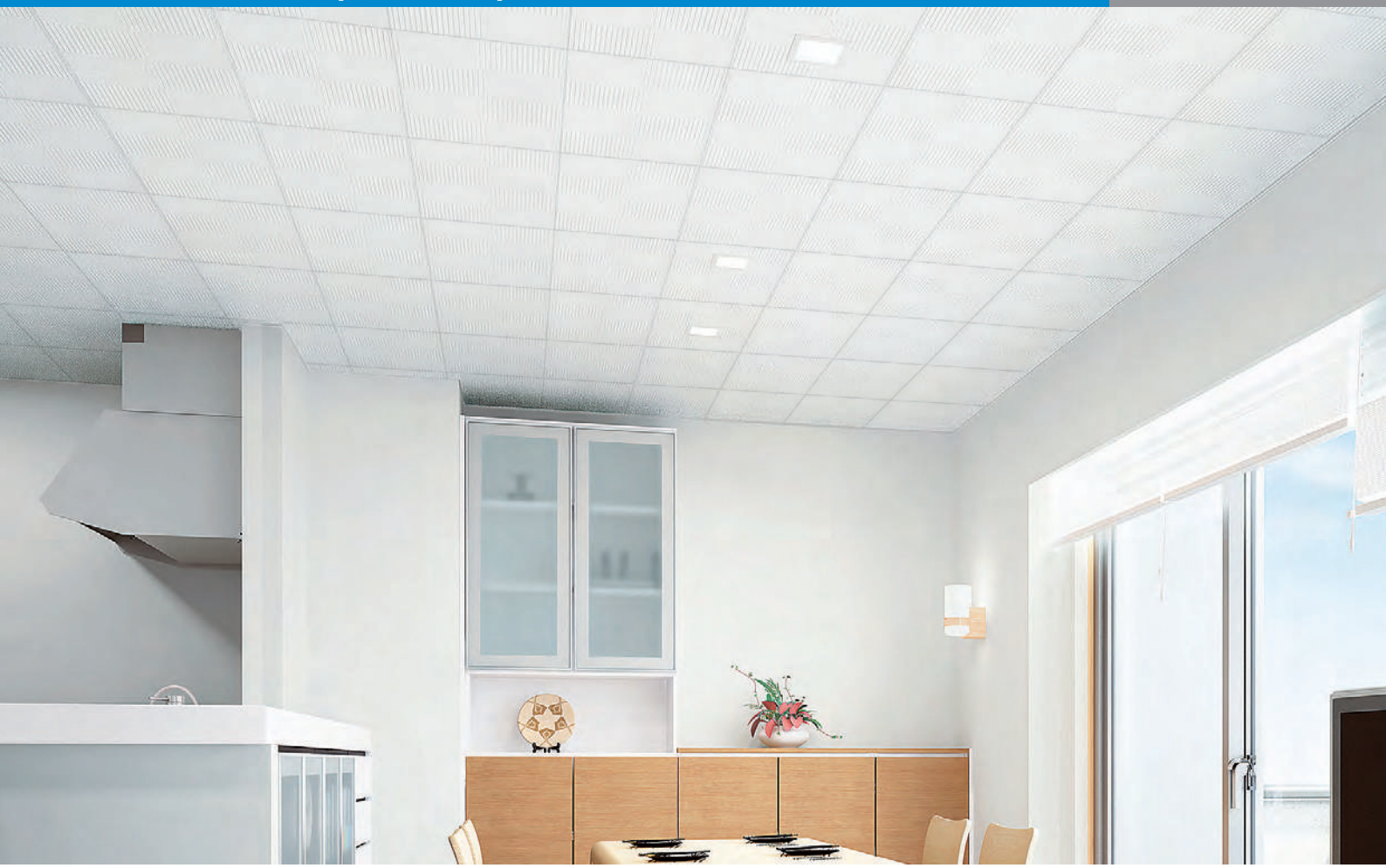
Dimensions	▷	12 mm thick, 303 x 606 mm
Packing material, quantity	▷	Cardboard case, 18 pieces (3.3㎡) per case
Base material	▷	Rock wool acoustic board
Surface finish	▷	Emboss, acrylic emulsion coating (clear pearl top coat)
Edge processing	▷	Tongue-and-groove joint on all sides
Certifications	▷	・Quasi-noncombustible material certified by the Minister of Land, Infrastructure, Transport and Tourism, QM-9817 ・Eco Mark certified product (recycled materials used, 53% slag) No. 08123013
Formaldehyde regulations	▷	Labeling exempted product

■Cross-sectional View



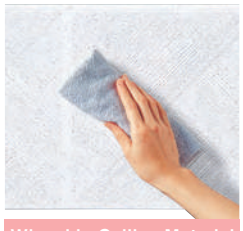
The value in parentheses indicates the dimension on long sides.

＊ The performance values and the certification labels are based on the Japanese test method and standards.
＊ DAIKEN CORPORATION does not guarantee that the products listed here conform to the laws and regulations of the country or region where they are being used.



EXCELTONE (DL series)
– Healthy Ceiling TA6

■Recommended for heavy user kitchen and Living Room Ceilings



Wipeable Ceiling Material

■Reasonably Priced Ceiling Material with a Simple Design

Easy-To Clean. Just wipe the ceiling surface with neutral detergent, recommended for heavy user in the kitchen etc.
TA6 features a simple design with reasonable price.

■ Labels Related to Public Certifications and Industrial Associations

Formaldehyde Labeling Exempted Product | 4VOC Standards Compliant | Quasi -noncombustible

■ Premium Features

Low VOC | DAIKEN ECO

DAIKEN

TA6

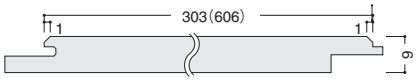
〈03〉 TA6103

〈04〉 TA6104

Specifications

Dimensions	▷	9 mm thick, 303 x 606 mm
Packing material, quantity	▷	Cardboard case, 18 pieces (3.3㎡) per case
Base material	▷	Rock wool acoustic board
Surface finish	▷	Emboss, acrylic emulsion coating (clear pearl top coat)
Edge processing	▷	Tongue-and-groove joint on all sides
Certifications	▷	・Quasi-noncombustible material certified by the Minister of Land, Infrastructure, Transport and Tourism, QM-9817 ・Eco Mark certified product (recycled materials used, 53% slag) No. 08123013
Formaldehyde regulations	▷	Labeling exempted product

■Cross-sectional View



The value in parentheses indicates the dimension on long sides.

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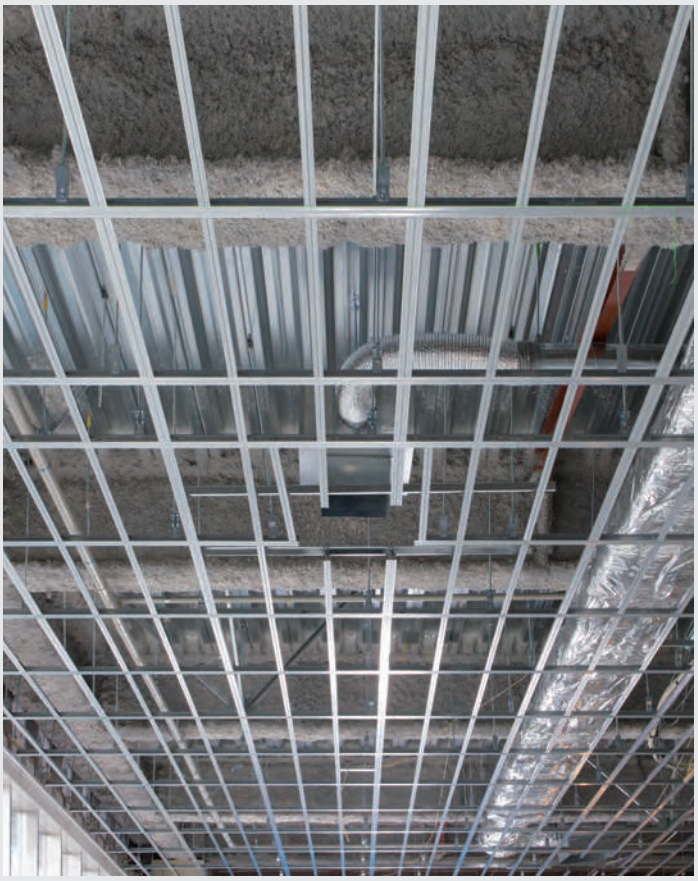
Daiken Ceiling grid Construction Method for Buildings and Stores

New Technology



Utilizing the know-how of installation method of ceiling system, DAIKEN has achieved both earthquake resistance and workability improvement.

After the Great East Japan Earthquake, the Japanese Building Standard Law was revised to require higher seismic performance for ceilings. However, there was a concern that fulfilling the demand with the conventional construction method would result in an increase in the construction workload. To address this issue, DAIKEN adopted a unique new ceiling construction method that can improve the seismic performance of ceilings in a short construction period with less workload.
This solution uses a ceiling underlayment material that combines the benefits of conventional ceilings with those of system ceilings.

Benefits of Conventional Ceiling Method
- Flexible design
- Usable for buildings in a variety of applications

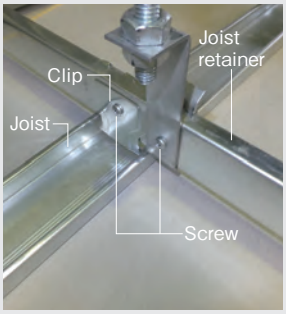
+

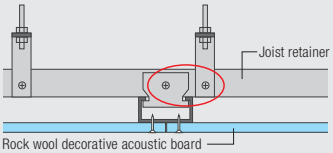
Benefits of New Ceiling Method
- High rigidity through the use of grid assembly
- Unitized design for less workload and shorter construction period

Earthquake resistance and workability improvement with comfortable indoor environment maintained

Simplified Construction with Improved Safety

Improving Seismic Performance with Conventional Ceiling Method

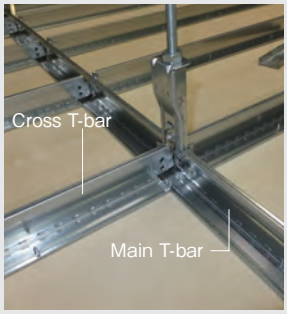




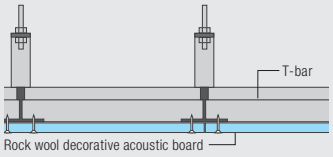
●Joists need to be bound to joist retainers using clips and reinforcing metal fittings.
●High-rigidity diagonal bracing corresponding to the unit weight of the ceiling needs to be installed.

3 to 4 times the conventional construction workload is needed.

New Ceiling Construction Method



*Not applicable to some specific ceilings such as curved ceilings



●Dedicated T-bars have tenon joints, so need not be fixed using screws.

Construction workload is reduced by approx. 20 to 30%, compared to when using conventional ceiling method to improve the seismic performance.

High Seismic Performance to Withstand a Horizontal Load Equivalent to 2.2G.

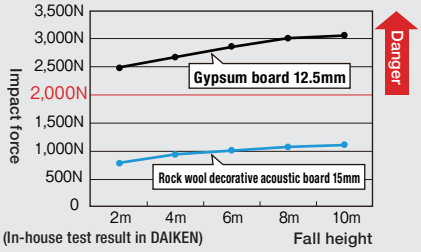
Our new method showed a high seismic performance of 4,000 N with respect to the allowable ceiling proof stress in the "unit test" (static pressurization test) designated by the Ministry of Construction (the current Ministry of Land, Infrastructure, Transport and Tourism.) (*In-house test result)

*Construction is performed in accordance with "Practical Guide on the Technical Standards concerning Measures to Prevent the Fall of Ceilings in Buildings" based on Notification No.771 of the Ministry of Land, Infrastructure, Transport and Tourism.

Improved Safety with Light-weight Rock Wool Decorative Acoustic Boards

It is proved in our laboratory test that our rock wool decorative acoustic boards have a low risk to human life in the event of falls.

■Dummy Head Test Result



(In-house test result in DAIKEN)

Reference: Dummy Head Test
The impact force was measured by allowing each material to fall from the specified height. It is considered that there is a low risk to human life if the impact force is 2,000 N or less.

One-push Underlayment Installation Combined with Excellent Workability to Realize a Short Construction Period

The new method contributes to the reduction of construction workload because the number of seismic braces is reduced.

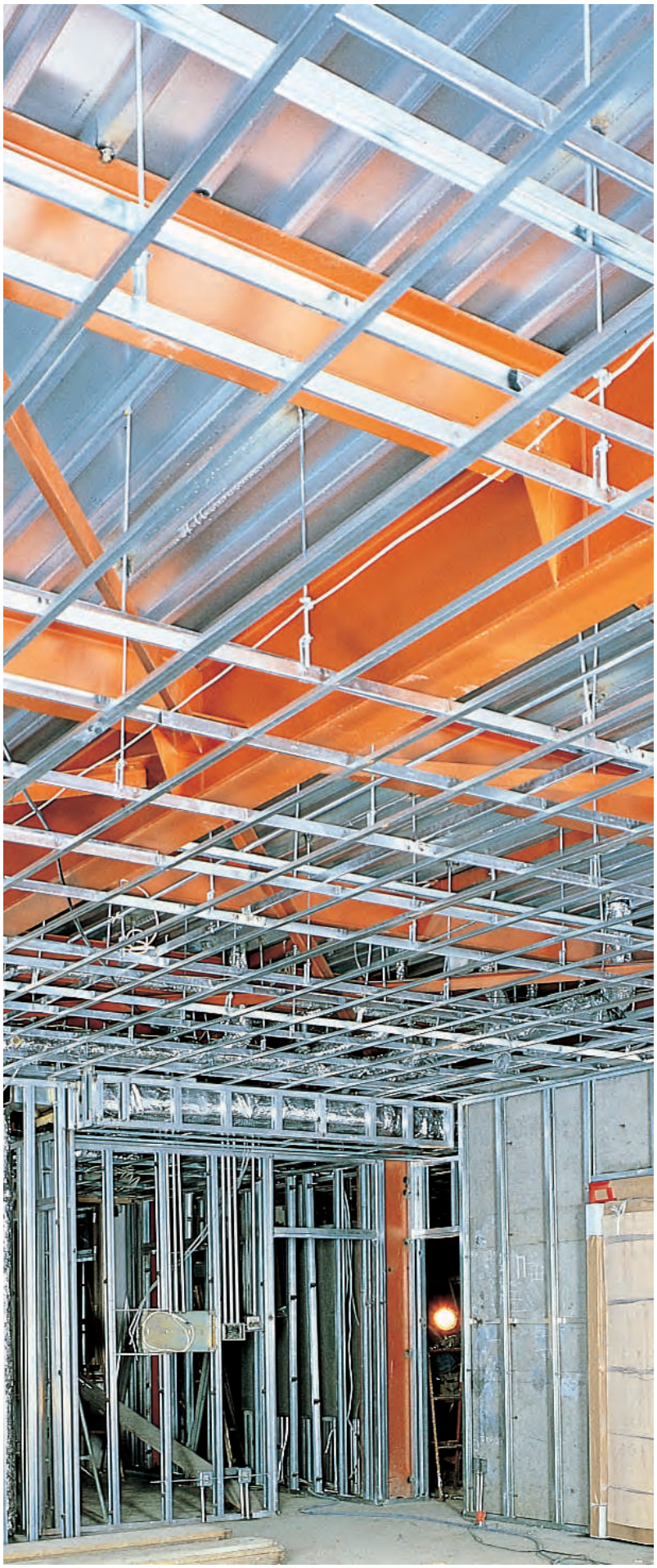
Weight of Ceiling in Conventional Method
10~20kg/m²
*Total weight of materials under steel channels (Metal fittings + Underlayment + Finishing materials)

Weight of Ceiling in New Method
8kg/m²
*When using DIRECT GRID 600 (12mm)
*Total weight of materials under dedicated T-bars (Metal fittings + Finishing materials)

The above information relates to ceiling construction methods available in Japan. For their application to your country or other details, please contact our sales office.

* The performance values and the certification labels are based on the Japanese test method and standards.
* DAIKEN CORPORATION does not guarantee that the products listed here conform to the laws and regulations of the country or region where they are being used.

INSTALLATION GUIDE



With a diverse lineup of functions, performance, size, and design, Daiken ceiling materials come with a selection of optimum Installation systems for each purpose. Including the most popular and economical Exposed T-BAR System, can be selected depending on the structure, ceiling construction, design concept, and budget. Easy maintenance also enables Daiken ceiling materials to offer longer celling life.

EXPOSED T-BAR SYSTEM (Lay-in)

One of the most popular celling systems, this system permits easy installation and maintenance. Labor and time can be saved by adopting this system.

SEMI-CONCEALED T-BAR SYSTEM

This system reaifzes a beautiful line design, since T-bars run In one direction. Also, lighting can be easily installed.

EXPOSED T-BAR SYSTEM (Tegular)

Using reveal processing, this system permits an attractive design In which a pattern formed by square or rectangular tile edges extends over the entire surface of the ceiling.

SEMI-CONCEALED SHIPLAP T-BAR SYSTEM

Permitting easy installation, this system uses a bold ceiling design In which long lines run in one direction. In this system, the longer sides of the tiles are "shiplap" jointed.

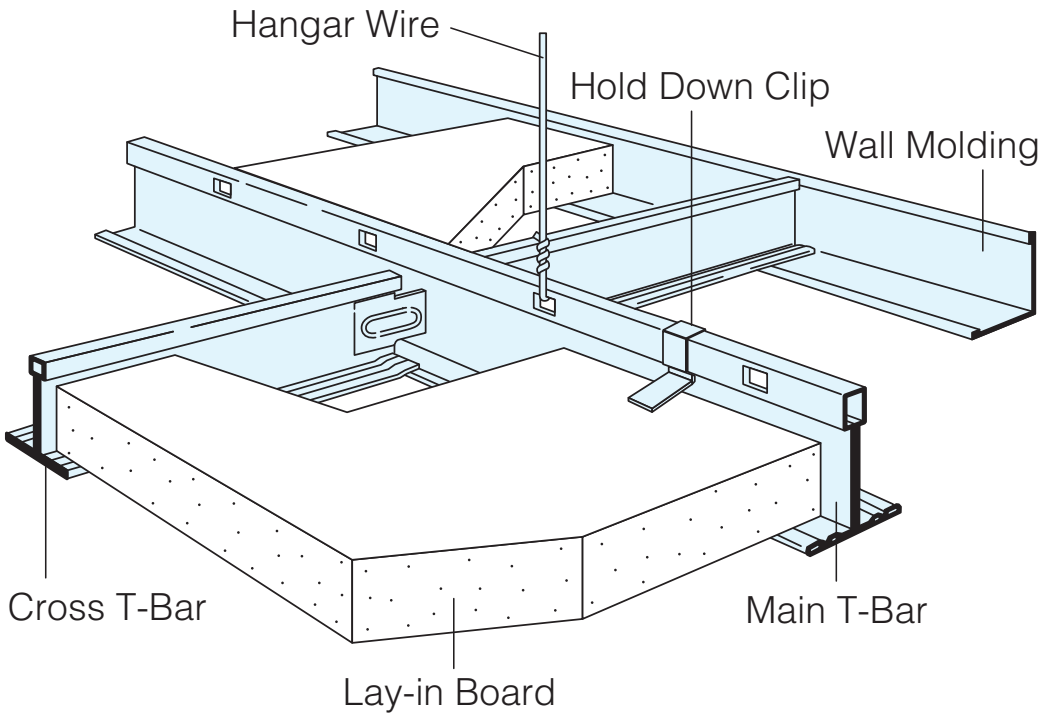
EXPOSED SLIM-LINE T-BAR SYSTEM (Tegular)

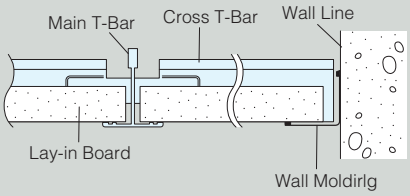
This system uses a design in which slim lines extend over the entire surface of a ceiling. It permits a beautiful finish, with metal fittings almost hidden.

ADHESIVE AND NAILS SYSTEM

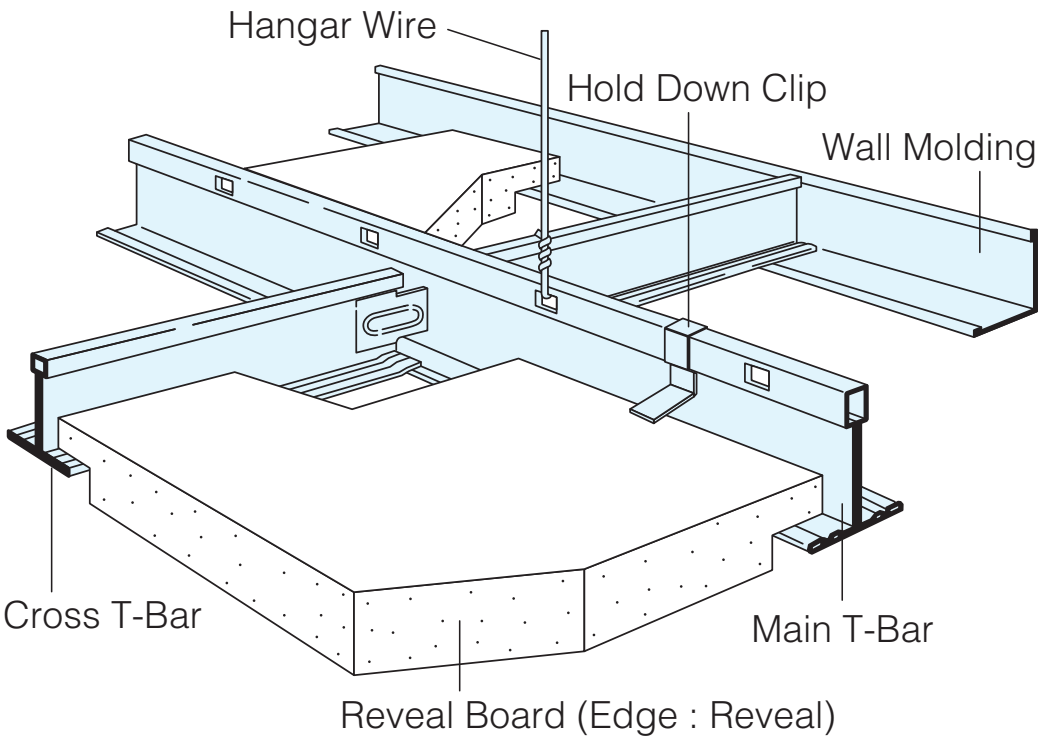
A basic system, this system uses adheslve and nails or staples for celling installation. High-quality flat ceilings can be Installed using this system.

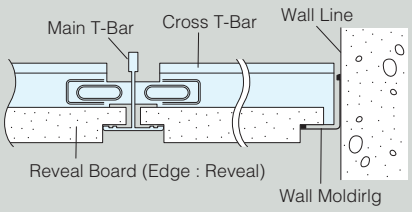
EXPOSED T-BAR SYSTEM (Lay-in)





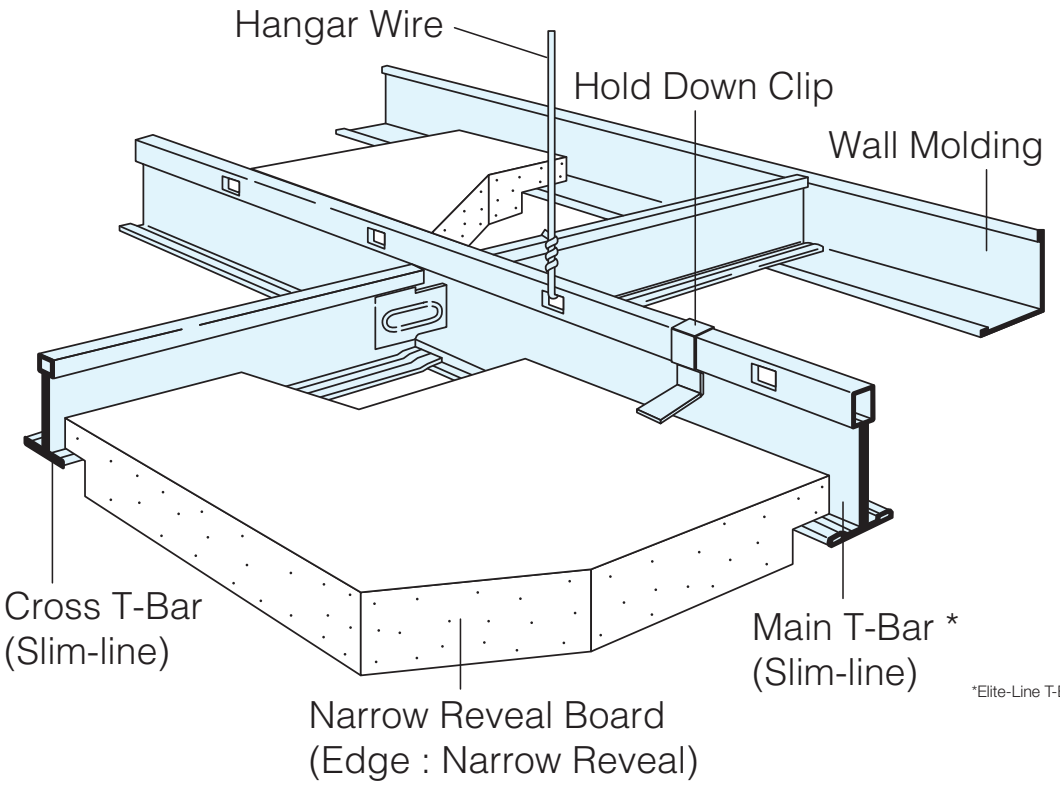
Section perpendicular to Main T-Bar



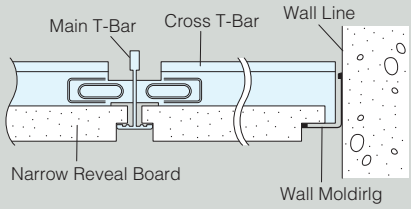


Section perpendicular to Main T-Bar

EXPOSED SLIM-LINE T-BAR SYSTEM

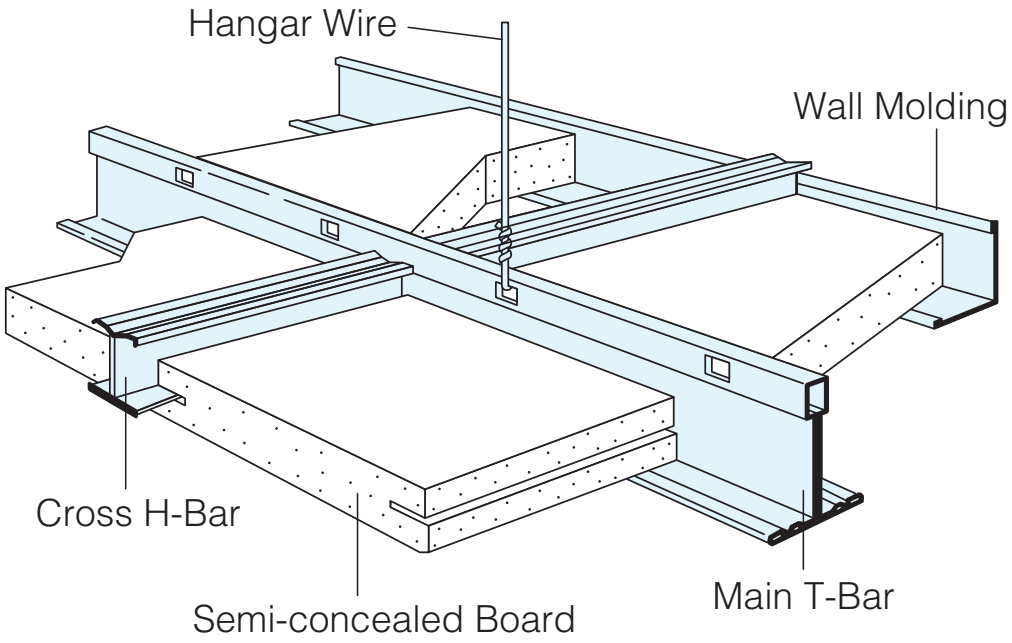


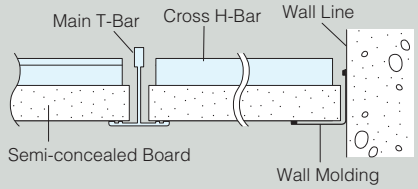
*Elite-Line T-Bar is also usable



Section perpendicular to Main T-Bar

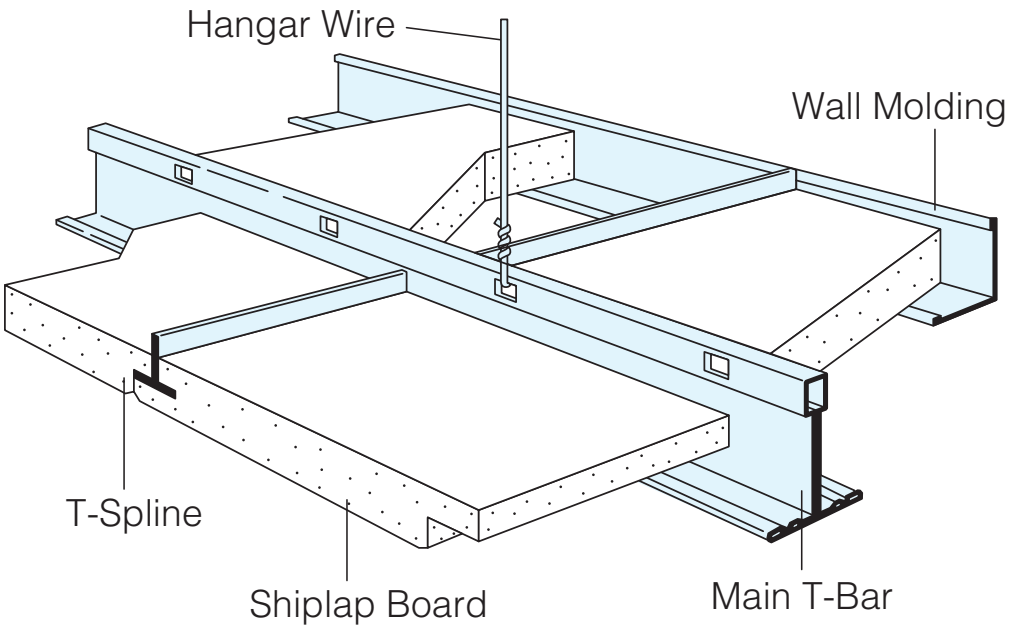
SEMI-CONCEALED T-BAR SYSTEM

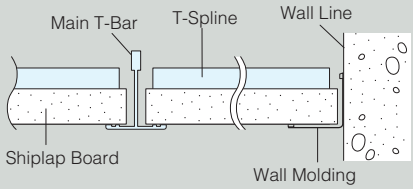




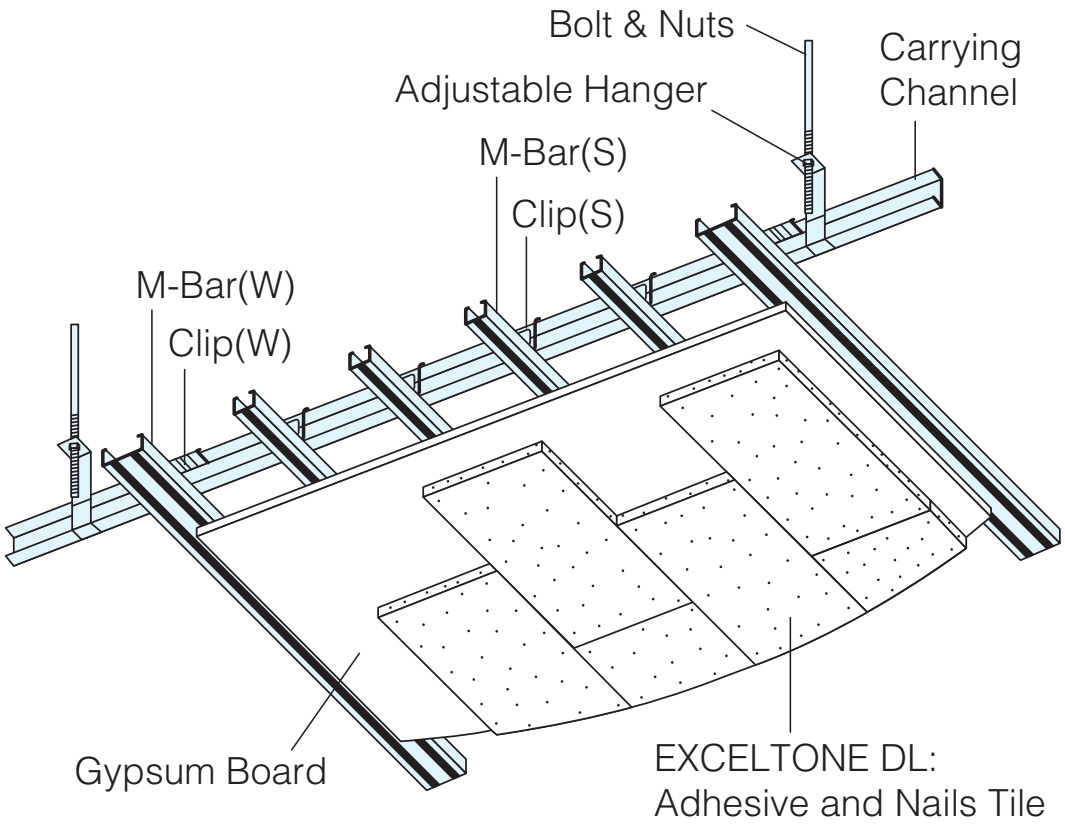
Section perpendicular to Main T-Bar

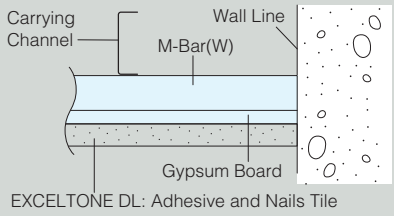
SEMI-CONCEALED SHIPLAP T-BAR SYSTEM





Section perpendicular to Main T-Bar

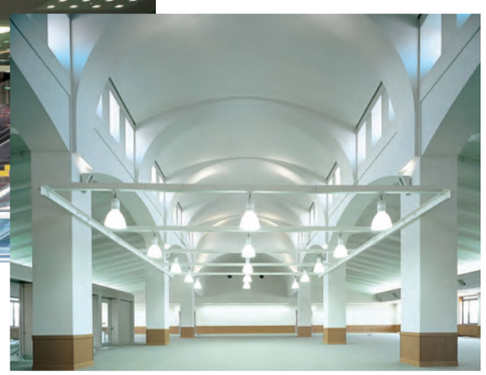




Section parallel to M-Bar

Construction Case

Ceiling : Travertine 12mm (Non-combustible Eaves Ceiling)
Kyoto Station building (Kyoto Japan)



Ceiling : Travertine 12mm
Kansai University of Foreign Studies (Osaka Japan)

Ceiling : RIB 101 15mm (Curve Ceiling)
Keihan Railway Kyobashi Station (Osaka Japan)

Ceiling :Travertine 12mm（hybrid Ceiling）
Hinomoto school chapel ridge

Ceiling : Travertine 9mm (Hybrid Ceiling)
Meiji Gakuin University (Tokyo Japan)

Ceiling : RIB101 12mm (Curve Ceiling)
OS cinemas M-INT KOBE (Hyogo Japan)

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

A. Allow wet work, such as plaster and concrete work, to dry completely.

B. Water-proofing and flashing work should be completed. Windows and doors should be in place and glazed.

C. Conduits and duct work should be completed.

D. Care should be taken to place air-conditioning vents and other mechanical fixtures conveniently within the suspension system.

E. Installation should be done when relative humidity is not greater than 80%. (except EXCELTONE 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.

F. 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.

G. Damaged or soiled materials should be replaced.

INSTALLATION

Installation should be in accordance with our specifications and recommendations.

GENARAL MAINTENACE

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 alkyd 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 fixutre, cove lights or high windwos 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

A. The installation of all acoustical work covered in this section shall be a qualified acoustical contractor.

B. The acoustical contactor 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.

C. Substitutions will not be permitted for materials and method covered in this section.

II GENERAL CONDITIONS

A. DAIKEN mineral acoustical materials shall not be used as support for or carry the loading of additional insulation, lighting, fixtures,etc.

B. The acoustical contractor shall be resposible 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.

C. All acoustical materials shall be installed by accepted installation practices.

III INSTALLATION

A. 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.

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

IV ACOUSTICAL MATERIALS

Lay-in Board:

A. The acoustical material shall be mineral fiber Exposed Board as munufactured by DAIKEN Corporation, Japan.

B. 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.

C. 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.

D. The acoustical material shall have sound absorption coefficients of ( ) and transmission losses of ( ).

SEMI-CONCEALED TILE:

A. The acoustical material shall be mineral fiber Semi-Concealed Tile as munufactured by DAIKEN Corporation, Japan.

B. 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.

C. 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.

D. The acoustical material shall have sound absorption coefficients of ( ) and transmission losses of ( ).

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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 EXCELTONE MR series

DAIKEN Corporation guarantees that "EXCELTONE 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 99% 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 no 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.