

MDF (Medium Density Fiberboard)

Versatile materials suitable used as base materials for all types of decorative panels.

About MDF

The DAIKEN Group offers two types of MDF (Medium Density Fiberboard), Hardwood and Softwood types.

Hardwood Type Product Thickness: 2.5 to 21.0 mm

Excellent Dimensional Stability

Little dimensional change and a low possibility of warping even under harsh environments (at high temperature and high humidity) allow wide use in cabinets, wooden fittings, etc.

Superb Water Resistance

Little swelling in water or in humid environments allows use in window frames (sash frames), flooring baseboards, etc. that require resistance to water and moisture.

Effective Utilization of Untapped Resources and Stable Raw Material Procurement

Taking advantage of our location in Malaysia, we utilize untapped resources such as residual wood pieces discharged from sawmills and plywood plants and also utilize plantation trees to stably procure raw materials.

Softwood Type Product Thickness: 1.8 to 30.0 mm

Light-colored Surface suitable for a variety of surface decoration

Laminating this MDF with a translucent sheet has little effect on the decoration surface. In direct printing masking coat process may be removed.

Smooth Surface

Long wood fibers provide smooth surface suitable for lamination, coating, and other treatments.

Effective Utilization of Untapped Resources and Stable Raw Material Procurement

One of our plants is located in New Zealand where planned-afforested radiata pine trees are abundantly available. Portions of the trees not suitable for sawing are used as the raw material of the MDF for stable raw material procurement.



Application Examples

【Construction Fittings】

- Flooring material (Base material)
- Surface material for counter tables, housing equipment, and flush doors
- Frame material (for opening frame, window frame, or door frame)
- Ceiling cornice, baseboard, and parting edge
- Counter top and ceiling board for bay windows

【Kitchen and Bathroom Equipment】

- Door, side/back plate, and shelf board of kitchen equipment
- Top board, side/back plate, and shelf board of washstand

【Office Equipment】

- Blackboard and partition

【Furniture and Woodwork】

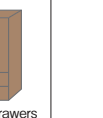
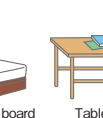
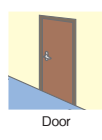
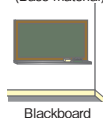
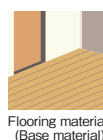
- Door, side/top plate, or material of chest/shelf furniture
- Front plate and panel of drawers
- Door and panel decoration
- Table top of legged furniture
- Dressing table, Buddhist altar fittings, and corner furniture
- Bed head/foot board
- Interior accessory (doll case, picture frame, or box)

【Entertainment Equipment】

- Front/side plate, shelf board, panel of electronic musical instrument

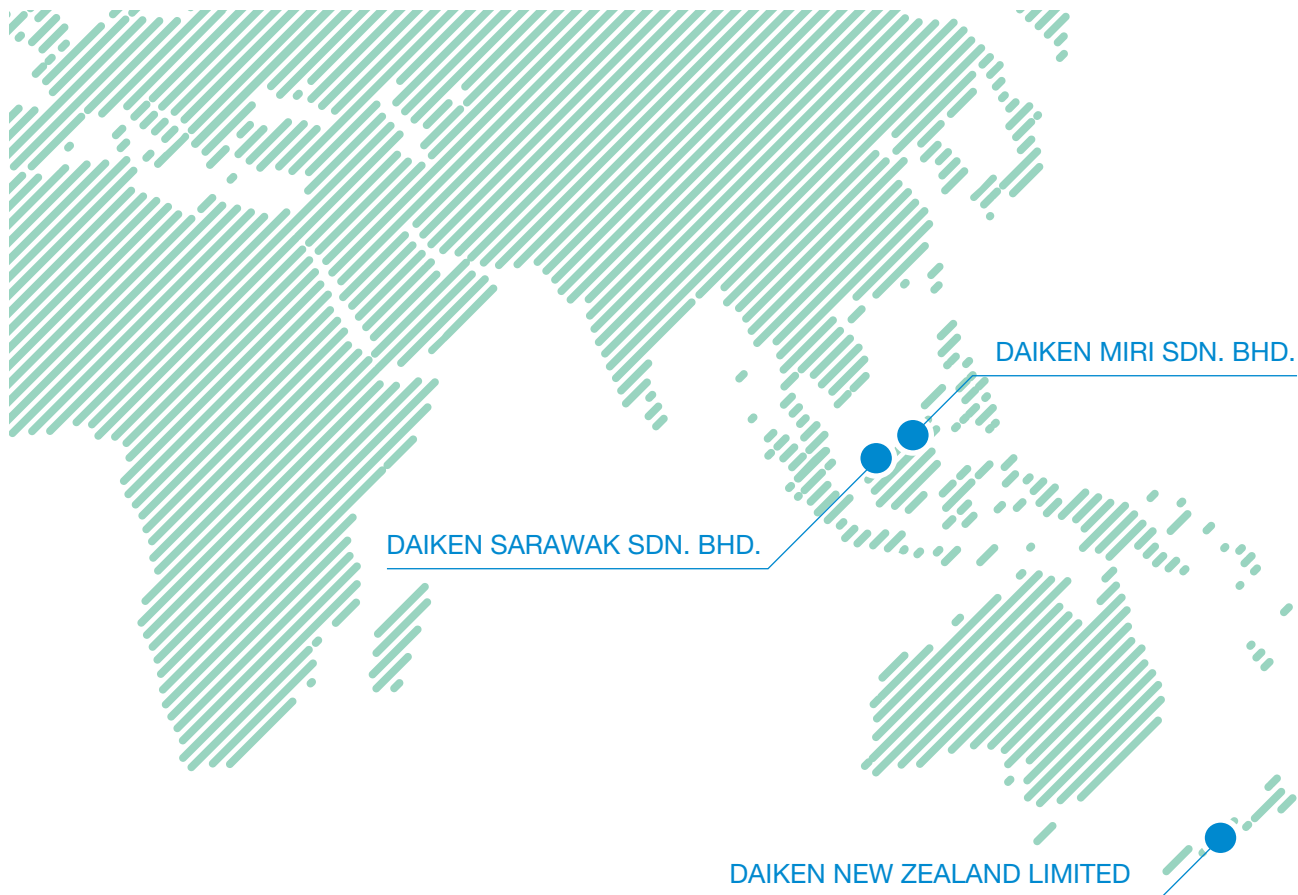
【Electric and Acoustic Equipment】

- Loudspeaker box and rack
- Table top, legs, and modesty panel of furniture-style Kotatsu (Japanese foot warmer table)



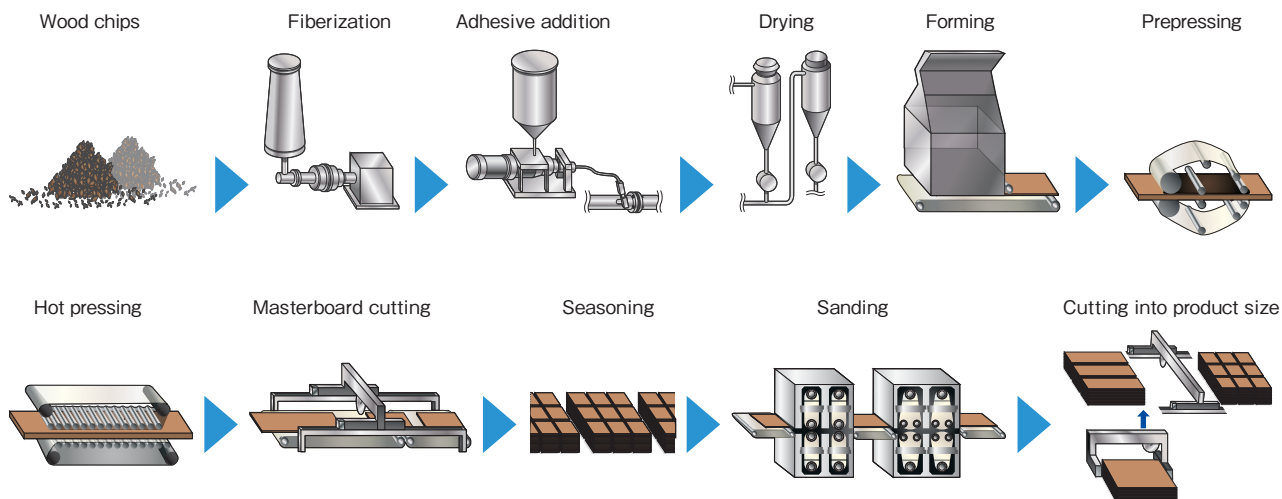
DAIKEN MDF Production Plants

The DAIKEN Group has three MDF production plants in the world,
two are located in Malaysia (one line each) and one is in New Zealand (two lines).



Tree type	Hardwood		Softwood	
Plant name	DAIKEN SARAWAK SDN. BHD.	DAIKEN MIRI SDN. BHD.	DAIKEN NEW ZEALAND LIMITED	
Abbreviation	DSK	DMR	DNZ	
Location	Sarawak, Malaysia		Rangiora, New Zealand	
Annual production capacity	120,000m ³	110,000m ³	Line 1 : 100,000m ³	Line 2 : 110,000m ³
Certifications	JIS A 5905 CARB ISO 9001 / 14001 PEFC CoC	JIS A 5905 CARB ISO 9001 / 14001	JIS A 5905 CARB ISO 9001 / 14001 FSC CoC	
Investment ratio	DAIKEN CORPORATION 75% Local state government-related companies 25%	DAIKEN CORPORATION 70% Samling Group 30%	DAIKEN CORPORATION 100%	

DAIKEN MDF Production Processes Plan



MDF(Medium Density Fiberboard)

MDF

Ceiling

Flooring

Interior Door

Cabinet

Wall

Building Acoustics

Others

Product Lineup - Standard Products (JIS Product)

Main raw material		Hardwood			Softwood		
JIS class		Formaldehyde emission					
Adhesive	Bending strength	F☆☆☆☆	F☆☆☆	F☆☆	F☆☆☆☆	F☆☆☆	F☆☆
Type U	Type 30	○	○	○	○	○	—
	Type 25	○	○	○	○	○	○
	Type 15	—	—	—	○	○	—
	Type 5	—	—	—	○	—	—
Type M	Type 30	○	○	○	—	—	—
	Type 25	○	○	○	—	—	—
	Type 15	○	—	—	—	○	—

Quality Standards of Standard Products (JIS Product)

JIS class			Density	Moisture content	Bending strength	Bending strength under wet condition	Swelling in thickness after immersion in water	Internal bond	Wood screw holding power	Formaldehyde emission	(informative) Bending Young's modulus
			g/cm³	%	N/mm²	N/mm²	%	N/mm²	N	mg/L	N/mm²
Type U	Type 30	F☆☆☆☆	0.35 or over	5 or over up to and incl.13	30.0 or over	—	—	0.5 or over	500 or over	Avg. 0.3 or under Max. 0.4 or under	2500 or over
		F☆☆☆								Avg. 0.5 or under Max. 0.7 or under	
		F☆☆								Avg. 1.5 or under Max. 2.1 or under	
	Type 25	F☆☆☆☆			25.0 or over	—		0.4 or over	400 or over	Avg. 0.3 or under Max. 0.4 or under	2000 or over
		F☆☆☆								Avg. 0.5 or under Max. 0.7 or under	
		F☆☆								Avg. 1.5 or under Max. 2.1 or under	
	Type 15	F☆☆☆☆			15.0 or over	—		0.3 or over	300 or over	Avg. 0.3 or under Max. 0.4 or under	1300 or over
		F☆☆☆								Avg. 0.5 or under Max. 0.7 or under	
	Type 5	F☆☆☆☆			5.0 or over	—		0.2 or over	200 or over	Avg. 0.3 or under Max. 0.4 or under	800 or over
Type M	Type 30	F☆☆☆☆	0.35 or over	5 or over up to and incl.13	30.0 or over	15.0 or over	• 17 or under for thickness 7 mm or under	0.5 or over	500 or over	Avg. 0.3 or under Max. 0.4 or under	2500 or over
		F☆☆☆								Avg. 0.5 or under Max. 0.7 or under	
		F☆☆								Avg. 1.5 or under Max. 2.1 or under	
	Type 25	F☆☆☆☆			25.0 or over	12.5 or over	• 12 or under for thickness over 7 mm up to and incl. 15 mm	0.4 or over	400 or over	Avg. 0.3 or under Max. 0.4 or under	2000 or over
		F☆☆☆								Avg. 0.5 or under Max. 0.7 or under	
		F☆☆								Avg. 1.5 or under Max. 2.1 or under	
	Type 15	F☆☆☆☆			15.0 or over	7.5 or over	• 10 or under for thickness over 15 mm	0.3 or over	300 or over	Avg. 0.3 or under Max. 0.4 or under	1300 or over
		F☆☆☆								Avg. 0.5 or under Max. 0.7 or under	

Wood screw holding power: Applicable to thickness of 15 mm or over

Product Lineup - Standard Products (Non-JIS Product)

Main raw material		Hardwood	Softwood
CARB	P2	○	○
	ULEF	—	○
EN	E1	○	○
	E2	○	○

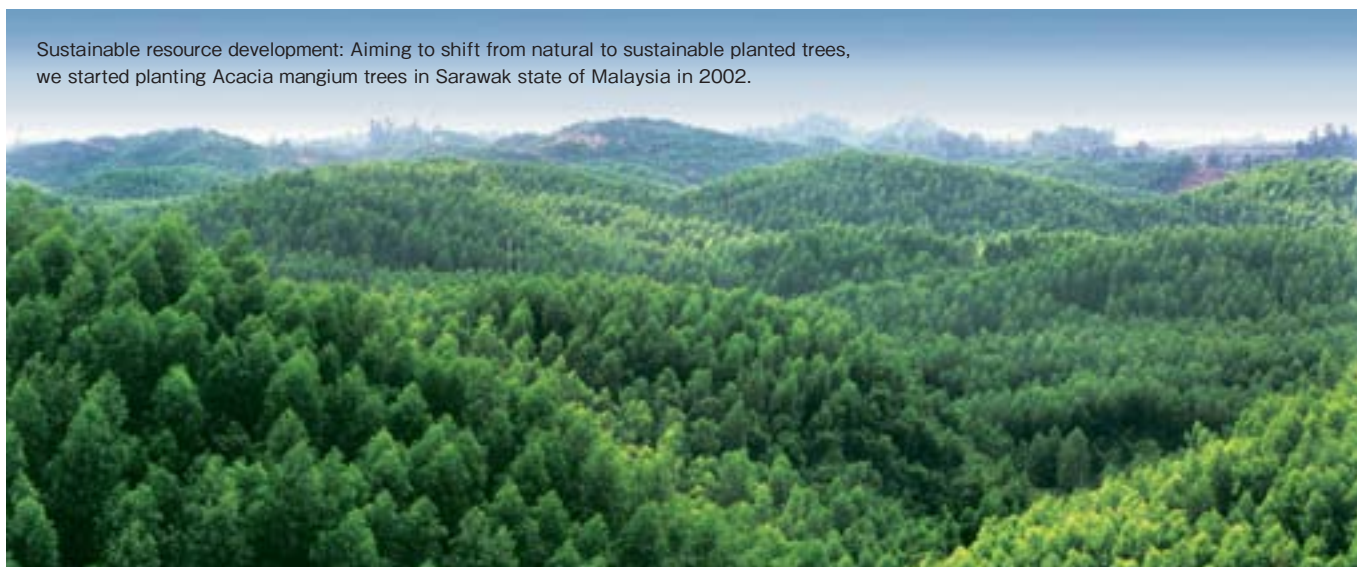
* The performance values and the certification labels are based on the Japanese test method and standards.
* DAIKEN CORPORATION does not guarantee that the products listed here conform to the laws and regulations of the country or region where they are being used.

Product Lineup (Custom Order)

Item	Main raw material		Product group	Formaldehyde emission level	Features
	Hardwood	Softwood			
Floor use	○	○	Thickness: 2.7 to 12 mm	JIS A 5905:F☆☆☆☆/F☆☆☆	<ul style="list-style-type: none"> • High water resistance • Industry-leading dimensional stability • Resistance to floor waxes and cleaners
Acacia 100%	○	—	Thickness: 2.5 to 6.0 mm	EN: E1/E2 JIS A 5905:F☆☆☆☆/F☆☆☆	<ul style="list-style-type: none"> • Sustainable Acacia mangium (Plantation tree) fiber used 100% as raw material • High bending strength • First-class water resistance in MDF category • Difficult to be deformed even at high temperature and high humidity
Ultra-light board	—	○	Thickness: 7 mm or over Density (g/cm ³): 0.3 to 0.6	CARB: P2/ULEF EN: E1/E2 JIS A 5905:F☆☆☆☆/F☆☆☆	<ul style="list-style-type: none"> • Lightweight for easy handling and reduced distribution cost • Thermal insulation and sound absorption
Ultra-thin board	—	○	Thickness: 1.8 mm	CARB: P2/ULEF EN: E1/E2 JIS A 5905:F☆☆☆☆/F☆☆☆	<ul style="list-style-type: none"> • Unprecedentedly thin MDF • Suitable as surface material due to inherent surface texture of MDF

Plantation Activities

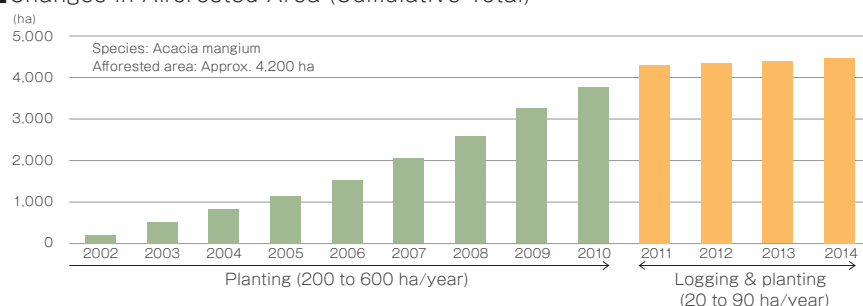
Sustainable resource development: Aiming to shift from natural to sustainable planted trees, we started planting Acacia mangium trees in Sarawak state of Malaysia in 2002.



Environmental Protection

The tree plantation area has reached 4,200 hectares or more, which contributes to a fixed annual carbon dioxide absorption of approximately 200,000 tons.

■ Changes in Afforested Area (Cumulative Total)



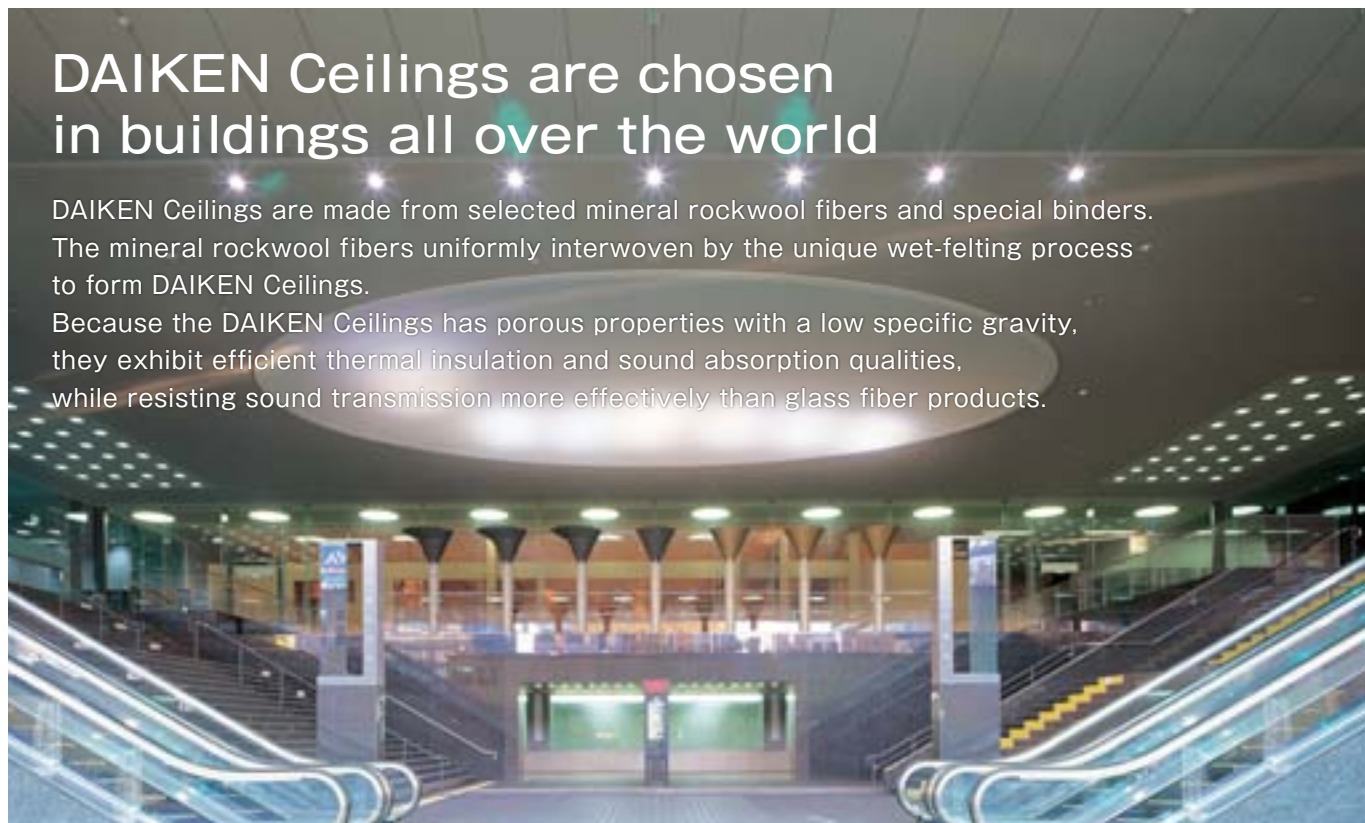
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DAIKEN Ceilings are chosen in buildings all over the world

DAIKEN Ceilings are made from selected mineral rockwool fibers and special binders. The mineral rockwool fibers uniformly interwoven by the unique wet-felting process to form DAIKEN Ceilings.

Because the DAIKEN Ceilings has porous properties with a low specific gravity, they exhibit efficient thermal insulation and sound absorption qualities, while resisting sound transmission more effectively than glass fiber products.



JR Kyoto station, Kyoto, Japan

DAIKEN makes ceiling from slag wool, a byproduct of iron manufacturing.



Slag is converted into mineral fibers, then the fibers are felted into DAIKEN Ceilings. Photo shows a piece of slag and mineral fibers.

There are many good reasons to choose DAIKEN Ceilings

Advantages to Users

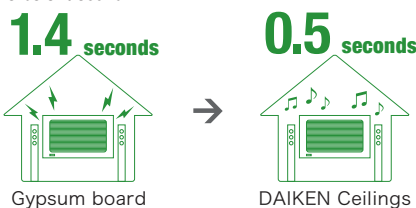
Fire Resistance

Outstanding fire resistance helps contain fires.



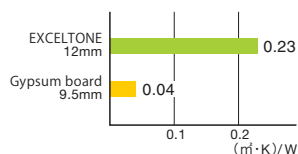
Sound Absorption

Adequately absorb the sound and create comfortable reverberant sound.



Thermal Insulation

Thermal insulation performance is 6 times better than gypsum board, and helps to minimize cost of air conditioning.



Attractive Design

With design versatility, DAIKEN ceiling are attractive.



Advantages to Builders



Easy installation and maintenance.

Most of DAIKEN Ceiling can be installed by the metal suspension system.



No Asbestos contained

All DAIKEN Ceilings are Asbestos-free products.

Eco Labels (EXCELTONE MR only)



Environmental Choice Australia

DAIKEN EXCELTONE (MR series) Acoustic Ceiling Tiles submitted for verification meet the GECA environmental performance criteria and that the products can successfully gain official registration as certified "Good Environmental Choice" products under the Australian Ecolabel Program.



Ecospecifier

DAIKEN EXCELTONE (MR series) has been assessed and met the criteria for inclusion on ecospecifier.org. In addition, a Green Rate Green Building Scheme Pre-Assessment has been conducted and found this products is likely to contribute to the achievement of Green Building rating tool credits.



ISO: International Organization for Standardization
[ISO 14001]
related to Environmental Management Systems
[ISO 9001]
related to Quality Management Systems
(Registered Scope) <http://www.jtccm.or.jp/>

EXCELTONE (MR series)



Ceiling Board with outstanding humidity resistance (RH)

EXCELTONE (MR series)

EXCELTONE (MR series) HIGH NRC Board

PHYSICAL DATA SUMMARY

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

Physical Properties		Test Method
Moisture content	2%	JIS A 6301
Modulus of Rupture	17kgf/cm 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
Thermal Conductivity	0.045kcal/mh°C	JIS A 1412
Light Reflectance	Over 0.80	ASTM E1477
Sound Absorption Coefficient(NRC)	0.55	ASTM C423
Ceiling Attenuation Class(CAC)	36	Australian Standards 2499 (TWO-ROOM METHOD)

JIS: Japanese Industrial Standard

Data of EXCELTONE MR series 3/4"High NRC MC

Physical Properties		Test Method
Flame Spread	Class A	ASTM E84
Light Reflectance	Over 0.80	ASTM E1477
Sound Absorption Coefficient(NRC)	0.75	ASTM C423
Ceiling Attenuation Class(CAC)	33	ASTM E1414

EXCELTONE Antibacterial and deodorant treatment

Anti-bacterium examination result

Bacteria	Specimen	Viable bacteria count /specimen (24hours later)
Escherichia coil (3.6×10 ⁴)	regular tile (non-Hospitone coating)	1.1×10 ²
	Hospitone coating	<10
	bacteria specimen	2.6×10 ⁶
Pseudomonas aeruginosa (4.5×10 ⁴)	regular tile (non-Hospitone coating)	7.8×10 ⁶
	Hospitone coating	10
	bacteria specimen	2.2×10 ⁶
MRSA mejishirin methicillin resistant staphylococcus aurei (3.8×10 ⁴)	regular tile (non-Hospitone coating)	10
	Hospitone 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.



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EXCELTONE (MR series)



▲ MD



▲ MN



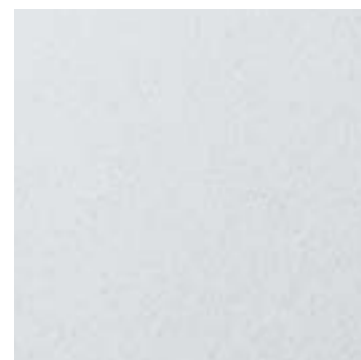
▲ MC *1



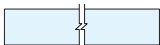


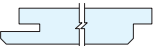



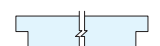
▲ MA *1



▲ MP *1



▲ MV *1

EXCELTONE MR series	Thickness (nominal)	Standard Size	Edge
Exposed Board	1/2", 5/8"	24" x 24" (o.c.) 24" x 48" (o.c.) 600 x 600mm (o.c.) 600 x 1,200mm (o.c.)	 4 sides: Trimmed.
Semi-concealed Tile	15mm	400 x 1,500mm 500 x 1,500mm	 Long sides: Kerf and rabbet, Square edges.  Short sides: Trimmed.
Shiplap Tile	15mm	400 x 1,500mm 500 x 1,500mm	 Long sides: Shiplap, bevel edges.  Short sides: Trimmed.
Reveal Tile	5/8"	24" x 24" (o.c.) 24" x 48" (o.c.) 600 x 600mm (o.c.) 600 x 1,200mm (o.c.)	 4 sides: Revealed, Square edges.
	13mm	24" x 24" (o.c.) 24" x 48" (o.c.) 600 x 600mm (o.c.) 600 x 1,200mm (o.c.)	 4 sides: Revealed, square edges.
Slim-line Tile	5/8" 13mm	24" x 24" (o.c.) 24" x 48" (o.c.) 600 x 600mm (o.c.) 600 x 1,200mm (o.c.)	 4 sides: Slim-line revealed, square edges.

*1 MC, MA, MP and MV pattern has no square edge Semi-Concealed Tile.



▲ MLC-10MN



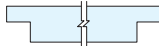
▲ MLC-20MN



▲ MLC-40MN



▲ MLC-41MN

EXCELSTONE MR series	Thickness (nominal)	Standard Size	Edge
Reveal Tile	5/8"	24" x 24" (o.c.) 24" x 48" (o.c.) 600 x 600mm (o.c.) 600 x 1,200mm (o.c.)	 4 sides: Revealed, square edges.



▲ MLC-9MN



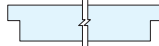
▲ MLC-16MN



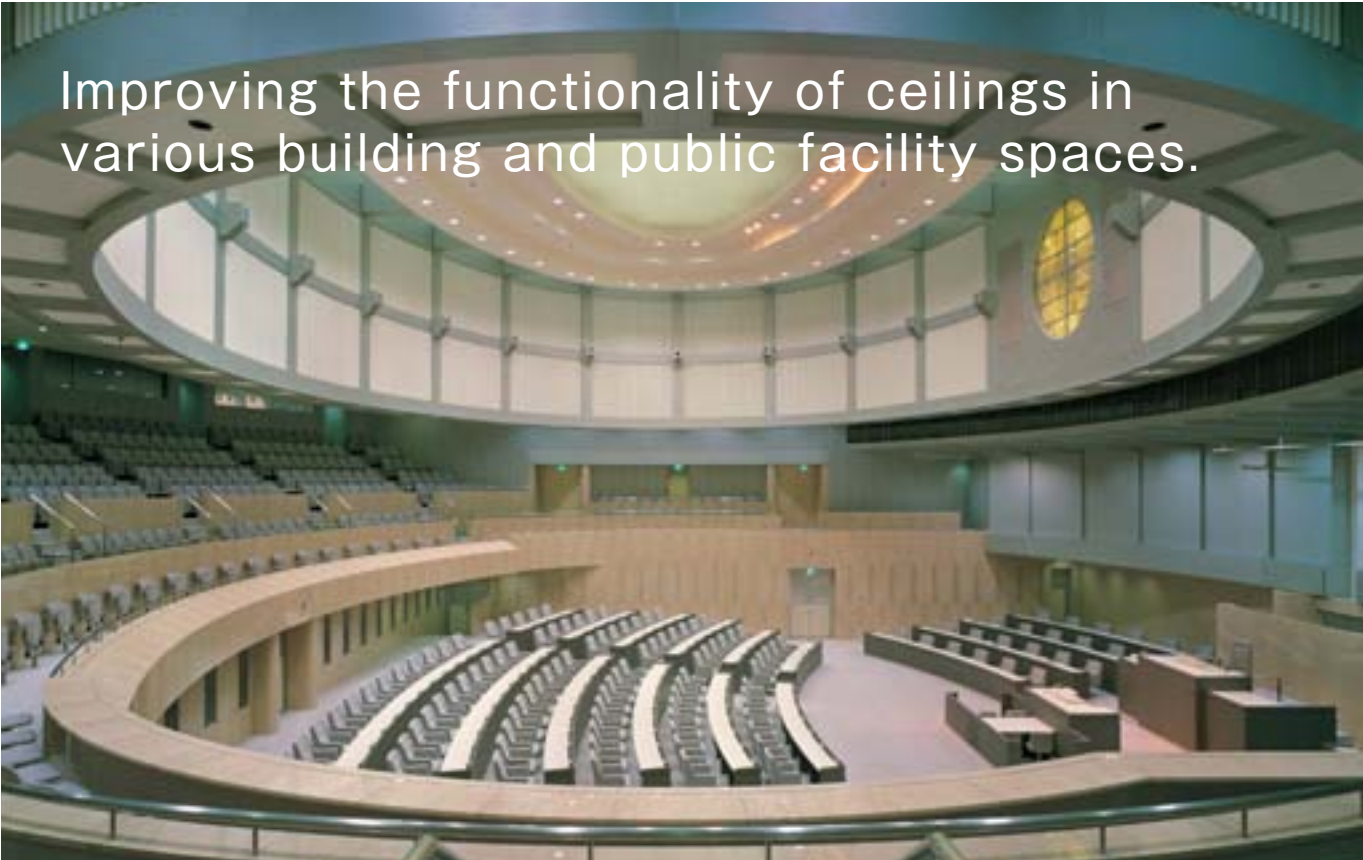
▲ MLC-64MN



▲ MLC-81MN

EXCELSTONE MR series	Thickness (nominal)	Standard Size	Edge
Slim-line Tile	15mm	24" x 24" (o.c.) 600 x 600mm (o.c.)	 4 sides: Slim-line revealed, square edges.

Improving the functionality of ceilings in various building and public facility spaces.



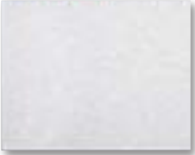
Tokyo Metropolitan Government Building

Decorative Acoustic Boards

PN: <TRAVERTINE>
(Joint width: 4 mm)
9 mm or 12 mm thick,
455 x 910 mm



PN: <STAR BREATH>
(Joint width: 4 mm)
9 mm or 12 mm thick,
455 x 910 mm



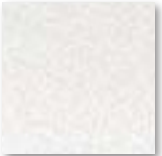
PN: <TRAVERTINE>
(Joint width: 4 mm)
12 mm thick,
600 x 1200 mm



PN: <GRID 600>
12 mm thick,
600 x 600 mm



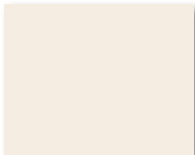
PN: <BEVEL 600>
12 mm thick,
600 x 600 mm



PN: <GINGA 4>
9 mm or 12 mm thick,
300 x 600 mm



COLOR



<R1>



<N5>



<B3>



<G1>



<Y1>



JR Kyoto Station



RIHGA Royal Hotel (Osaka)

Decorative Acoustic Boards

CURVED



FREE DESIGN CEILING



SYSTEM CEILING

GRID

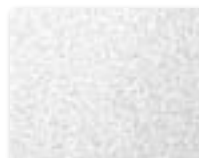
<NDF/LG> 15 mm thick
<LV> 12 mm thick



<NDF>



<LG>



<LV>

Indoor Pool Ceiling Materials MR

DAI-LOTONE MR

DAI-LOTONE MR
12 mm thick, 300 x 600 mm



DAIKEN's core products are presented here.

TA3

Residential Use Underlayment System Direct Fix Tongue & Groove Joint 12mm Thick Sound Absorption Coefficient: 0.45 to 0.53 (N.R.C)*

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

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

Labels Related to Public Certifications and Industrial Associations

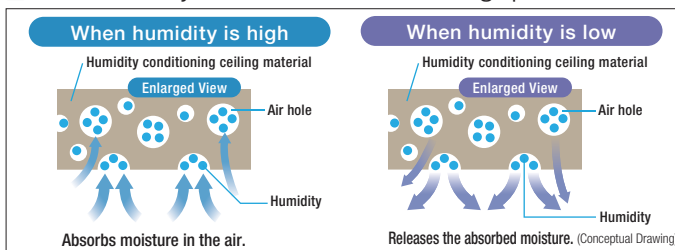
Formaldehyde Labeling Exempted Product 4VOC Standards Compliant Quasi-noncombustible

Premium Features

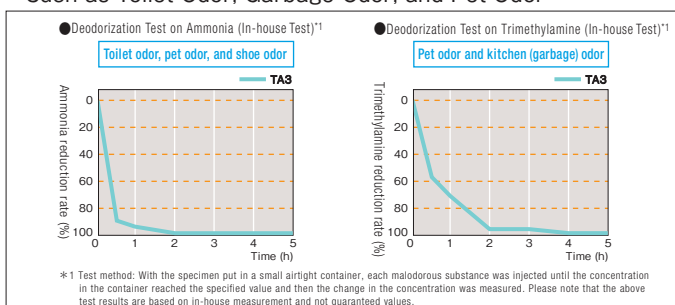
Low VOC Deodorant Humidity Conditioning Formaldehyde Absorption



Stable Humidity Condition deliver refreshing space

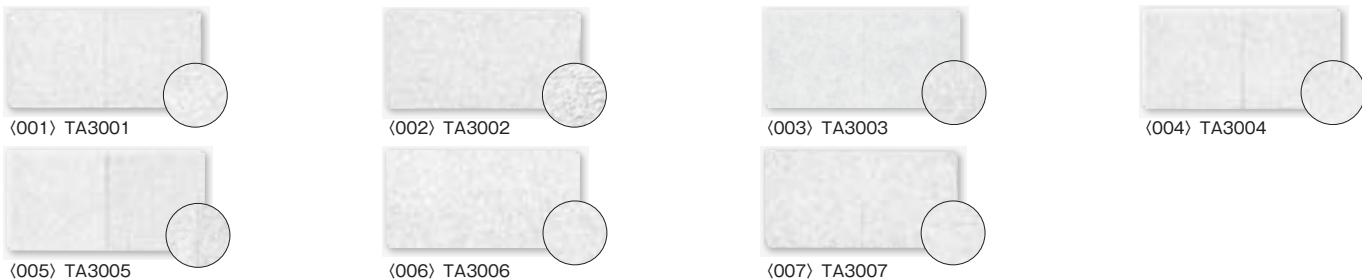


Deodorizing Effect to eliminate Major Odors in Daily Life, Such as Toilet Odor, Garbage Odor, and Pet Odor



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

<FLAT>



<PATTERN>



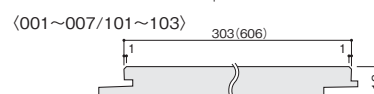
<RIB/GRID>



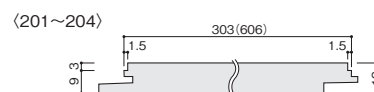
Specifications

- Dimensions ▷ 12 mm thick, 303 x 606 mm
- Packing material, quantity ▷ Cardboard case, 18 pieces (3.3m²) 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.



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



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

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.

Labels Related to Public Certifications and Industrial Associations

Formaldehyde Labeling Exempted Product

4VOC Standards Compliant

Quasi-noncombustible



Premium Features

Low VOC

Formaldehyde Absorption



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)

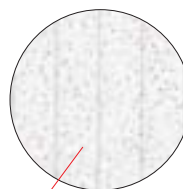


When ceiling is finished with CLEARSTONE

● Reverberation time: Approx. 0.6 s/500 Hz (in 20-mat tatami room)

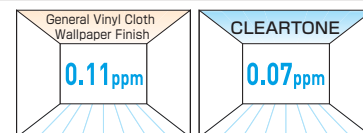
Pinhole-processed Surface for Enhanced Sound Absorption

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°C, relative humidity at 50%, ventilation frequency 0.5 time/hour (in-house measurement), 6-mat tatami room, CLEARSTONE 12S installation area rate 19%
* Installation area rate: Installation area of the CLEARSTONE 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.

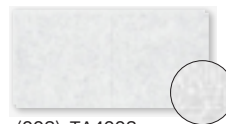
<FLAT>



<001> TA4001



<002> TA4002



<003> TA4003



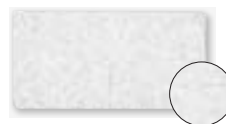
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<005> TA4005



<006> TA4006



<007> TA4007

<PATTERN>



<101> TA4101



<102> TA4102



<103> TA4103

<RIB/GRID>



<201> TA4201



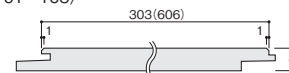
<203> TA4203

Specifications

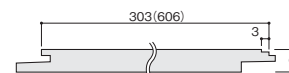
- Dimensions ▷ 9 mm thick, 303 x 606 mm
- Packing material, quantity ▷ Cardboard case, 18 pieces (3.3 m²) per case
- Base material ▷ Rock wool acoustic board
- Surface finish ▷ Pinhole and rib processing (<201/203> only), emboss (except for <201/203>), and acrylic emulsion coating
- Edge processing ▷ 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.

TA7

Residential Use

Underlayment System

Direct Fix

Tongue & Groove Joint

12mm Thick

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

Labels Related to Public Certifications and Industrial Associations

Formaldehyde Labeling Exempted Product

4VOC Standards Compliant

Quasi-noncombustible



Premium Features

Low VOC



Recommended for heavy user kitchen and Living Room Ceilings

Attractive Geometric Design to create stylish and beautiful ceiling.



Wipeable Ceiling Material



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

TA6

Residential Use

Underlayment System

Direct Fix

Tongue & Groove Joint

9mm Thick

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



Recommended for heavy user kitchen and Living Room Ceilings



Wipeable Ceiling Material

Reasonably Priced Ceiling Material with a Simple Design

TA7



〈01〉 TA7101

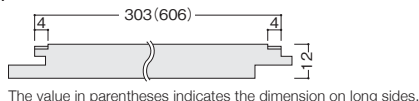


〈02〉 TA7102

Specifications (TA7)

Dimensions	▷ 12 mm thick, 303 x 606 mm
Packing material, quantity	▷ Cardboard case, 18 pieces (3.3m ²) 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.

TA6



〈03〉 TA6103



〈04〉 TA6104

Specifications (TA6)

Dimensions	▷ 9 mm thick, 303 x 606 mm
Packing material, quantity	▷ Cardboard case, 18 pieces (3.3m ²) 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.

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

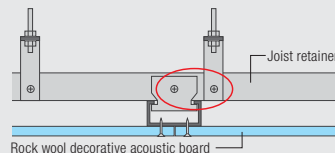
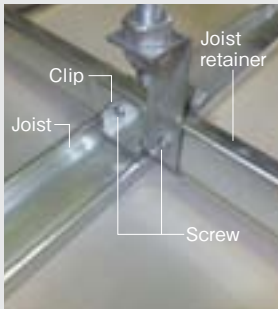
- High rigidity through the use of grid assembly
- Unitized design for less workload and shorter construction period



Earthquake resistance and workability improvement with comfortable indoor environment maintained

Simplified Construction with Improved Safety

Improving Seismic Performance with Conventional Ceiling Method



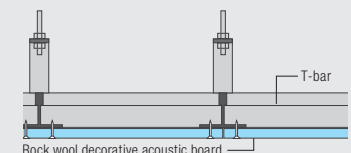
- Joists need to be bound to joist retainers using clips and reinforcing metal fittings.
- High-rigidity diagonal bracing corresponding to the unit weight of the ceiling needs to be installed.

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)

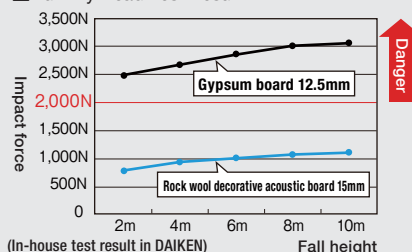


*Construction is performed in accordance with "Practical Guide on the Technical Standards concerning Measures to Prevent the Fall of Ceilings in Buildings" based on Notification No.771 of the Ministry of Land, Infrastructure, Transport and Tourism.

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



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

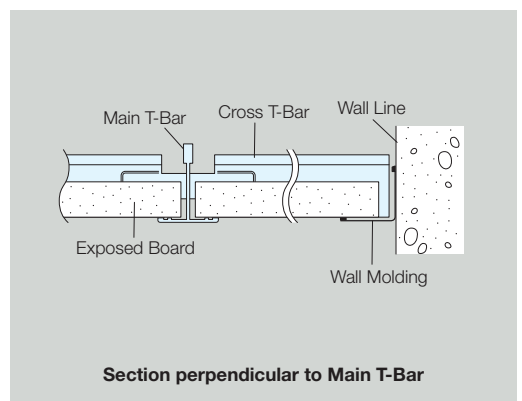
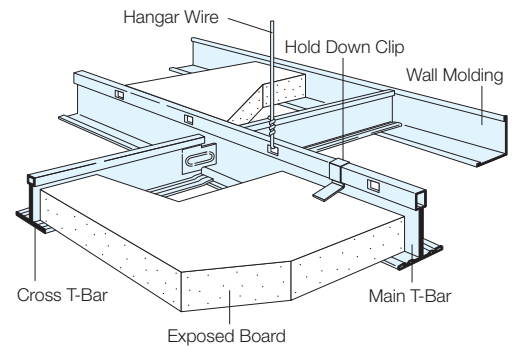
*When using DIRECT GRID 600 (12mm)
*Total weight of materials under dedicated T-bars (Metal fittings + Finishing materials)

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.

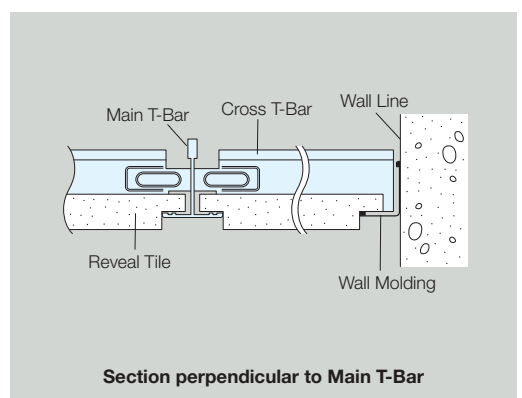
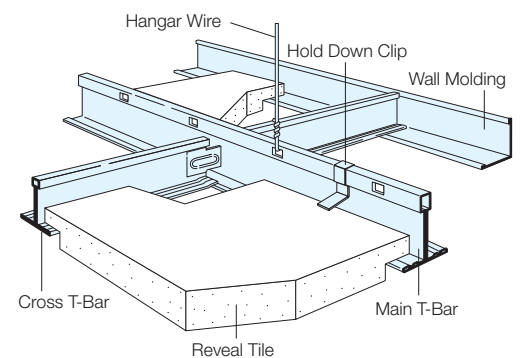
* The performance values and the certification labels are based on the Japanese test method and standards.
* DAIKEN CORPORATION does not guarantee that the products listed here conform to the laws and regulations of the country or region where they are being used.

Installation Guide

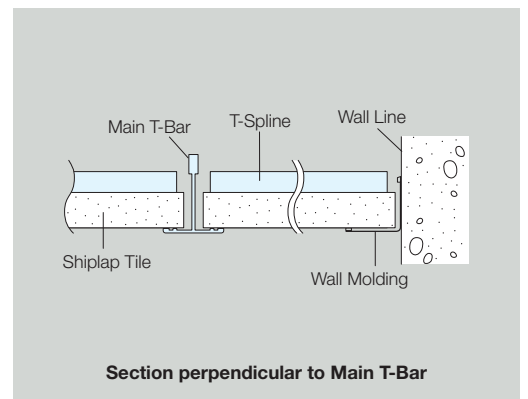
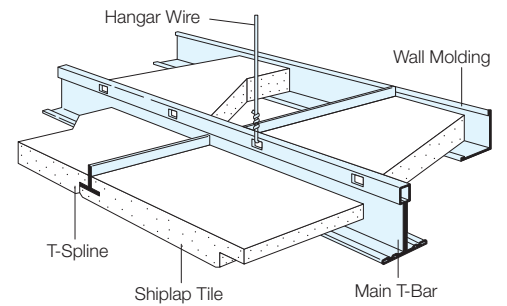
EXPOSED SYSTEM



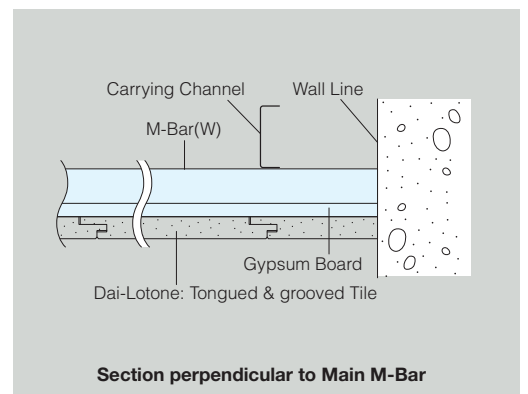
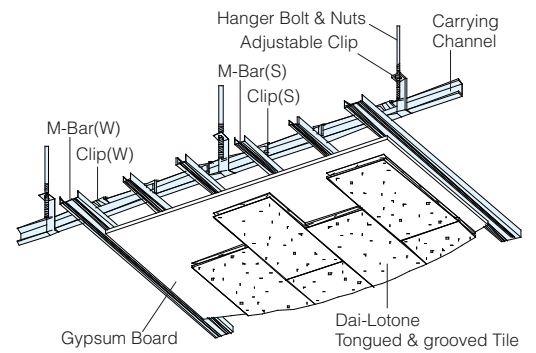
REVEALED SYSTEM



SHIPLAP T-BAR SYSTEM



Tongued & Grooved Tile



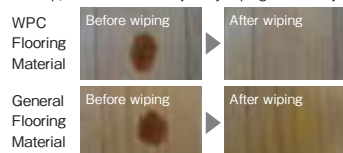
A wide range of Engineered Wood Flooring provides a beautiful, natural, authentic wood finish. The textured design is stunning and the WPC floor adds a luxurious, timeless look to your home.

WPC Engineered Wood Flooring

Excellent stain resistant
Surface sealed WPC floors are stain and water resistant, durable and easy to maintain.

In daily life, it is inevitable that floors get stained over time. A key point to keep floors clean for a long time is to choose a flooring material with excellent stain-proof and wipeable features.

DAIKEN's flooring materials allow you to remove curry, ketchup, and marker stains just by wiping them away.



Pet Friendly Flooring

Excellent stain-, scratch- and slip-resistant floor surface are ideal for your pets.

Besides being stain and scratch-resistant, DAIKEN WPC flooring has a slip resistance property so as to ensure safety of the kids, elderly and pets.



Strong and Durable WPC flooring prevent your floor get scratches easily.

Choosing a flooring material with sufficient hardness and strength is essential to prevent scratching when you drop something on it.



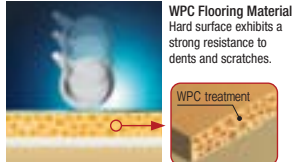
WPC flooring withstands the pressure of the wheels of a desk chair, or the impact of a dropped miniature car or building block. Falling Ball Impact Test Results



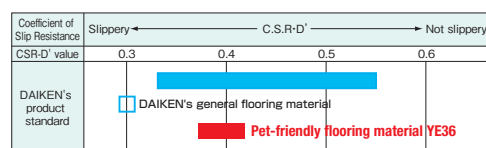
*Do not use metal or ball caster wheels.

WPC Treatment

WPC uses a combination of wood and a plastic resin filling to achieve outstanding hardness and dent resistance. WPC also has a strong resistance to stains and water splashes. Therefore, WPC flooring is widely used for living rooms, bedrooms, children's rooms, and even kitchens and bathrooms.



DAIKEN' Slip resistance surface treatment protects your pets from leg injury.



measured by the Floor Material Construction Method Study Group

CSR-D' value: The coefficient of slip resistance intended for pets
█ : The CSR range considered for walking dogs (DAIKEN standard)

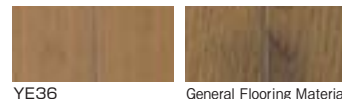
Excellent scratch resistant coating to prevents the floor from dog scratching.

Scratch Resistance Test Results



Strong ammonia resistant, simple maintenance, and stain resistant.

Ammonia Resistance Test Results



Eco Labels

F☆☆☆☆

In July 2003, the revised Building Standard Law that provides regulations on sick building syndrome was enforced. In response to this, DAIKEN has been offering the highest F4-rank products whose installation floor area is not regulated by the revised law. Moreover, for the door frame, baseboard, parting edges, and other parts that are not subject to the formaldehyde emission regulations, F4-rank equivalent materials are used.

4VOC Standards Compliant

"4VOC Standards Compliant" is a label based on the industry's voluntary labeling system with respect to the emission of 4VOC (toluene, xylene, ethyl benzene, and styrene) from building materials, operated by the Japan Construction Material & Housing Equipment Industries Federation and other industrial associations. Although building material manufacturers conventionally used their own standards to indicate this, implementing the industry's common standards* helps customers choose products they need. From this reason, DAIKEN is continuing to register its products with the "4VOC Standards Compliant" labeling system one after another.

* In April 2008, standards with respect to the emission rate of VOC from building materials were established by the "Committee for standardization of emission rate of VOC from building products" (operated by Japan Testing Center for Construction Materials).

* 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.

* The above flooring materials are not designed for use with shoes on.

YP76

For Residential Use

Underlayment System

Slipper Uses

12 mm Thick

Surface Material
WPC (Natural Wood)

Surface Finish
Matte

Beautiful and elegance Japanese Wood Surface with premium quality of WPC engineered flooring are resistant to dent, scratches, moisture and stains.

Labels Related to Public Certifications and Industrial Associations

F☆☆☆☆

4VOC Standards Compliant



YP76-NSK

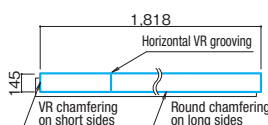


YP76-NTK

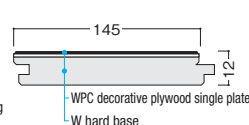
Specifications

Dimensions	▷ 12 mm thick, 145 x 1,818 mm
Packing material, quantity	▷ Cardboard case, 6 pieces (1.58 m ²) per case
Package weight	▷ Approx. 14 kg/package
Base material	▷ Plywood with W hard base
Surface	▷ WPC treatment, natural wood (cedar/horse chestnut) thick single plate (approx. 2.0 mm), UV antimicrobial wear-resistant matte coating finish
Edge processing	▷ Tongue-and-groove joint on all sides, horizontal VR grooving, round chamfering on long sides and VR chamfering on short sides
Formaldehyde regulations	▷ F4-rank JAS (Composite flooring)

Plain View



Cross-sectional View



YP74

For Residential Use

Underlayment System

Slipper Uses

12 mm Thick

Surface Material
WPC (Natural Wood)

Surface Finish
Matte

Unique and durable, WPC Flooring is a stunning engineered wood with a variety of natural veneer tones.

Labels Related to Public Certifications and Industrial Associations

F☆☆☆☆

4VOC Standards Compliant



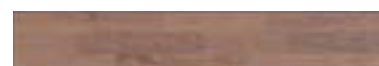
YP74-NT



YP74-NC



YP74-NK



YP74-NW



YP74-NS

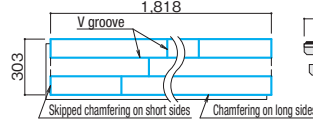


YP74-NN

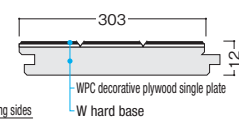
Specifications

Dimensions	▷ 12 mm thick, 303 x 1,818 mm
Packing material, quantity	▷ Cardboard case, 6 pieces (3.3 m ²) per case
Package weight	▷ Approx. 30 kg/package
Base material	▷ Plywood with W hard base
Surface	▷ WPC treatment, natural wood thin single plate, horse chestnut/chestnut/cedar/ginkgo/Japanese wingnut/Japanese walnut straight/cross grain mixed random length board, UV antimicrobial wear-resistant natural coating finish
Edge processing	▷ Tongue-and-groove joint on all sides, vertical & horizontal VR grooving (3P), chamfering on long sides and skipped chamfering on short sides
Formaldehyde regulations	▷ F4-rank JAS (Composite flooring)

Plain View



Cross-sectional View



* Note on horizontal V grooving: Horizontal joint portions may not have V grooves to ensure natural flooring finish.

YP62

For Residential Use

Underlayment System

Slipper Uses

12 mm Thick

Surface Material
WPC (Natural Wood)

Surface Finish
Mirror

Natural Japanese Wood by Daiken has an abundance of casual beauty. With strong graining highlighted by shades of honey, tan and cream, this flooring has comfortable style and universal appeal.

Labels Related to Public Certifications and Industrial Associations

F☆☆☆☆

4VOC Standards Compliant



YP62-3B



YP62-35



YP62-39

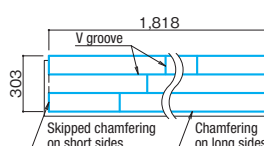


YP62-21

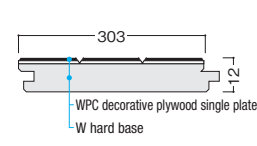
Specifications

Dimensions	▷ 12 mm thick, 303 x 1,818 mm
Packing material, quantity	▷ Cardboard case, 6 pieces (3.3 m ²) per case
Package weight	▷ Approx. 30 kg/package
Base material	▷ Plywood with W hard base
Surface	▷ WPC treatment, natural wood thin single plate, beech/ash straight/cross grain mixed random length board, UV antimicrobial wear-resistant superfine coating finish
Edge processing	▷ Tongue-and-groove joint on all sides, vertical & horizontal VR grooving (3P), chamfering on long sides and skipped chamfering on short sides
Formaldehyde regulations	▷ F4-rank JAS (Composite flooring)

Plain View



Cross-sectional View



- * 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.
- * The above flooring materials are not designed for use with shoes on.

YP68

For Residential Use

Underlayment System

Slipper Uses

12 mm Thick

Surface Material
WPC (Natural Wood)Surface Finish
Matte

WPC treated surface protect that inhibits fading and scratching, giving your new floors a hearty resilience for years to come.

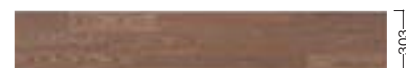
Labels Related to Public Certifications and Industrial Associations

F☆☆☆☆

4VOC Standards Compliant



YP68-38



YP68-35



YP68-39

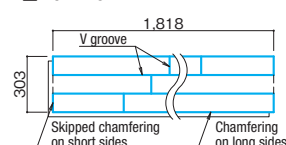


YP68-21

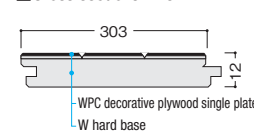
Specifications

- Dimensions ▽ 12 mm thick, 303 x 1,818 mm
 Packing material, quantity ▽ Cardboard case, 6 pieces (3.3 m²) per case
 Package weight ▽ Approx. 30 kg/package
 Base material ▽ Plywood with W hard base
 Surface ▽ WPC treatment, natural wood thin single plate, beech/ash straight/cross grain mixed random length board, UV antimicrobial wear-resistant matte coating finish
 Edge processing ▽ Tongue-and-groove joint on all sides, vertical & horizontal VR grooving (3P), chamfering on long sides and skipped chamfering on short sides
 Formaldehyde regulations ▽ F4-rank JAS (Composite flooring)

Plain View



Cross-sectional View



YP77

For Residential Use

Underlayment System

Slipper Uses

12 mm Thick

Surface Material
WPC (Natural Wood)Surface Finish
Matte

Impressive matt finish surface beautifully crafted through ultra, realistic designs and the latest in innovative technologies.

Labels Related to Public Certifications and Industrial Associations

F☆☆☆☆

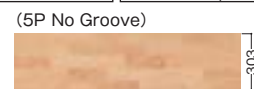
4VOC Standards Compliant



YP7701-50



YP7702-50



YP7705-50



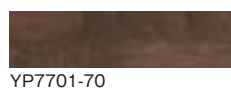
YP7701-13



YP7702-13



YP7705-13



YP7701-70



YP7702-70

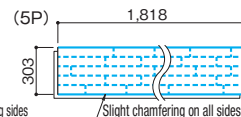
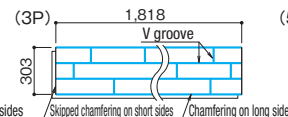
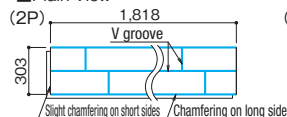


YP7705-70

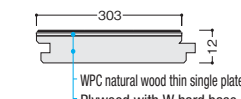
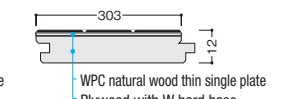
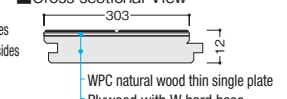
Specifications

- Dimensions ▽ 12 mm thick, 303 x 1,818 mm
 Packing material, quantity ▽ Cardboard case, 6 pieces (3.3 m²) per case
 Package weight ▽ Approx. 30 kg/package
 Base material ▽ Plywood with W hard base
 Surface ▽ WPC treatment, natural wood thin single plate, hard maple/cherry/walnut straight/cross grain mixed random length board, UV antimicrobial wear-resistant matte coating finish
 Edge processing ▽ Tongue-and-groove joint on all sides
 (2P) Vertical & horizontal V grooving, chamfering on long sides and slight chamfering on short sides
 (3P) Vertical & horizontal V grooving, chamfering on long sides and skipped chamfering on short sides
 (5P) No groove, slight chamfering on all sides
 Formaldehyde regulations ▽ F4-rank JAS (Composite flooring)

Plain View



Cross-sectional View



YP75

For Residential Use

Underlayment System

Slipper Uses

12 mm Thick

Surface Material
WPC (Natural Wood)Surface Finish
High Gloss

The glossy surface with characteristic graining and beautiful pattern sets it apart, bringing a wonderfully unique look to your home.

Labels Related to Public Certifications and Industrial Associations

F☆☆☆☆

4VOC Standards Compliant



YP75-YC



YP75-ML



YP75-MT



YP75-MW

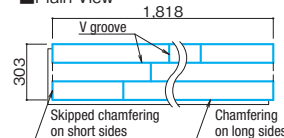


YP75-MF

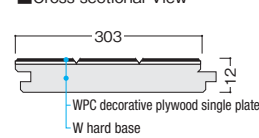
Specifications

- Dimensions ▽ 12 mm thick, 303 x 1,818 mm
 Packing material, quantity ▽ Cardboard case, 6 pieces (3.3 m²) per case
 Package weight ▽ Approx. 30 kg/package
 Base material ▽ Plywood with W hard base
 Surface ▽ (YC/MT/MF) WPC treatment, natural wood thin single plate, ash straight/cross grain mixed random length board, UV antimicrobial wear-resistant fine coating finish
 (ML/MW) WPC treatment, natural wood thin single plate, beech straight/cross grain mixed random length board, UV antimicrobial wear-resistant fine coating finish
 Edge processing ▽ Tongue-and-groove joint on all sides, vertical & horizontal VR grooving (3P), chamfering on long sides and skipped chamfering on short sides
 Formaldehyde regulations ▽ F4-rank JAS (Composite flooring)

Plain View



Cross-sectional View



* 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.

* The above flooring materials are not designed for use with shoes on.

YE33

For Residential Use

Underlayment System

Slipper Uses

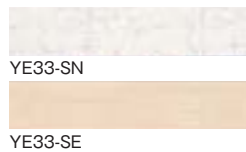
12 mm Thick

Surface Material
Decorative Sheet (Olefin)

Surface Finish
Mirror

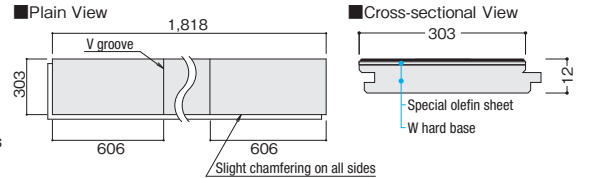
Graphiarts Superfine Engineered wood flooring with a stunning mirror finish and a variety of marble texture.

Labels Related to Public Certifications and Industrial Associations
F☆☆☆☆ 4VOC Standards Compliant



Specifications

- Dimensions ▷ 12 mm thick, 303 x 1,818 mm
- Packing material, quantity ▷ Cardboard case, 6 pieces (3.3 m²) per case
- Package weight ▷ Approx. 30 kg/package
- Base material ▷ Plywood with W hard base
- Surface ▷ Special olefin sheet, UV antimicrobial wear-resistant superfine coating finish
- Edge processing ▷ Tongue-and-groove joint on all sides, 606-mm pitch horizontal V grooving, slight chamfering on all sides
- Formaldehyde regulations ▷ F4-rank JAS (Composite flooring)



YN71

For Residential Use

Underlayment System

Slipper Uses

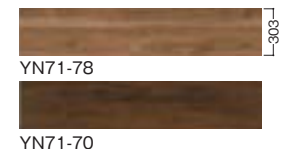
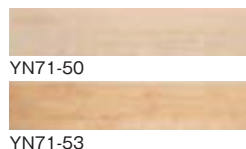
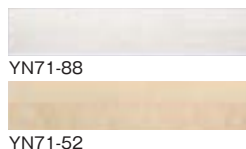
12 mm Thick

Surface Material
Decorative Sheet (Olefin)

Surface Finish
Matte

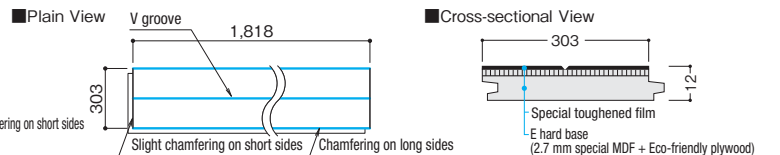
The textures and tones of the world's most beautiful species converge in this collection of laminate flooring from Daiken: A rich array of styles designed to inspire your home spirit.

Labels Related to Public Certifications and Industrial Associations
F☆☆☆☆ 4VOC Standards Compliant



Specifications

- Dimensions ▷ 12 mm thick, 303 x 1,818 mm
- Packing material, quantity ▷ Cardboard case, 6 pieces (3.3 m²) per case
- Package weight ▷ Approx. 22 kg/package
- Base material ▷ 2.7 mm special MDF + Eco-friendly plywood
- Surface ▷ Special toughened film
- Edge processing ▷ Tongue-and-groove joint on all sides, vertical VR grooving, chamfering on long sides and slight chamfering on short sides
- Formaldehyde regulations ▷ F4-rank JAS (Composite flooring)



YN77

For Residential Use

Underlayment System

Slipper Uses

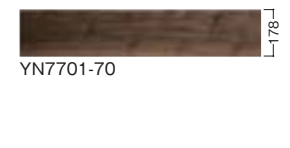
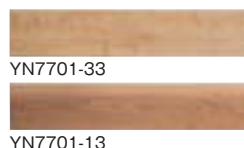
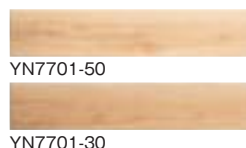
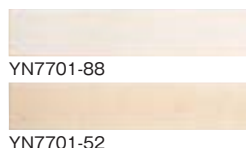
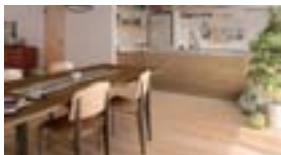
12 mm Thick

Surface Material
Decorative Sheet (Olefin)

Surface Finish
Matte

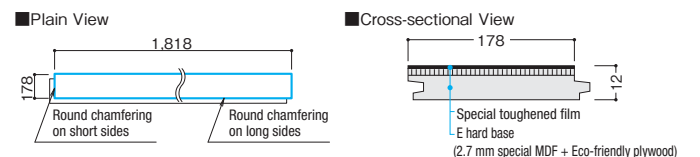
The WPC flooring with Japanese wood surface accentuates the beauty and character of each individual plank. This collection features fantastic exotic wood species patterns, with deep, rich color and unique grain patterns.

Labels Related to Public Certifications and Industrial Associations
F☆☆☆☆ 4VOC Standards Compliant



Specifications

- Dimensions ▷ 12 mm thick, 178 x 1,818 mm
- Packing material, quantity ▷ Cardboard case, 10 pieces (3.2 m²) per case
- Package weight ▷ Approx. 22 kg/package
- Base material ▷ 2.7 mm special MDF + Eco-friendly plywood
- Surface ▷ Special toughened film, lap finishing on all sides
- Edge processing ▷ Tongue-and-groove joint on all sides, round chamfering on all sides
- Formaldehyde regulations ▷ F4-rank JAS (Composite flooring)



YE36

For Residential Use

Underlayment System

Slipper Uses

12 mm Thick

Surface Material
Decorative Sheet (Olefin)

Surface Finish
Matte

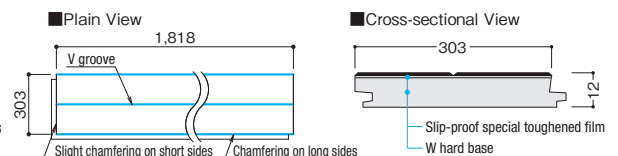
YE36 is designed especially for families with pets, children and active lifestyles.

Labels Related to Public Certification and Industrial Associations
F☆☆☆☆ 4VOC Standards Compliant



Specifications

- Dimensions ▷ 12 mm thick, 303 x 1,818 mm
- Packing material, quantity ▷ Cardboard case, 6 pieces (3.3 m²) per case
- Package weight ▷ Approx. 30 kg/package
- Base material ▷ Plywood with W hard base
- Surface ▷ Slip-proof special toughened film
- Edge processing ▷ Tongue-and-groove joint on all sides, vertical VR grooving (2P), chamfering on long sides and slight chamfering on short sides
- Formaldehyde regulations ▷ F4-rank JAS (Composite flooring)



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* The above flooring materials are not designed for use with shoes on.

YD75

For Residential Use

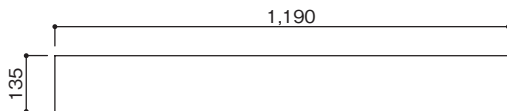
Slipper Uses

15 mm Thick

Surface Material
Natural Wood

Made by engineered wood with higher janka hardness to prevent dent and scratch resistance to home traffic.

Plain View



YD75-11



YD75-12



YD75-13



YD75-14



YD75-15



YD75-16



YD75-17



YD75-18



YD75-19



YD75-20



YD75-21

Eco-friendliness

Our healthy & Eco friendly engineered flooring met E0 standards is considered a safer, greener choice. E0 is an updated version of E1 with much more stringent standards requiring formaldehyde emissions to be equal to or less than 0.07ppm

Performance

1. Strong crack, fade, and wear resistance Toughened surface coating ensures outstanding resistance to cracking, fading, and wear.
2. Single-plate crack prevention Unique chamfering technology prevents cracks on the single plate.
3. Floor heating ready Our products are all made of plywood with high thermal stability, causing no warping and cracking in a severe environmental test (at a temperature range of -20 to 90°C).

YD78

For Residential Use

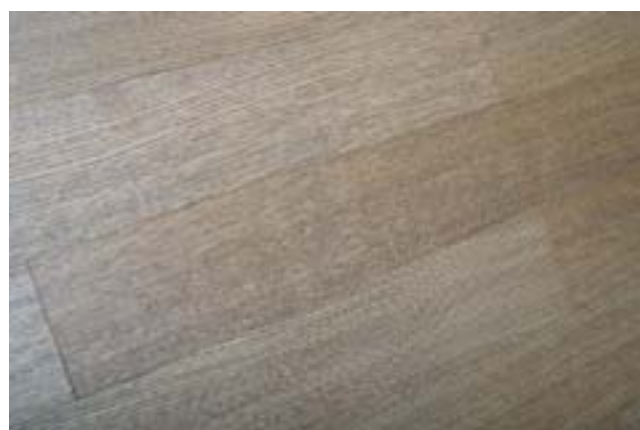
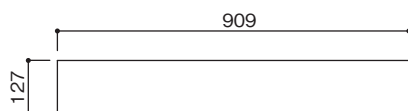
Slipper Uses

12 mm Thick

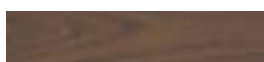
Surface Material
Natural Wood

Unique uneven surface design delivers outstanding wood texture. DAIKEN's proprietary surface processing technology has realized this high-level surface treatment. YD78 fits well with modern or basic interior design.

Plain View



YD78-WCH



YD78-WWU



YD78-WMD



YD78-WDN



YD78-WDS



YD78-WDR



YD78-WRS



YD78-WWH



YD78-MBL



YD78-MRD



YD78-MWH