Sound absorbing material / Sound insulation material / Noise control Product catalogue

Hitori Shizuka



Ask Shizuka for advice on your sound insulation and noise control needs!





Shizuka Co., Ltd.

Japanese patents: 16 Trademark registrations: 6 Overseas patents: US, China, Korea, UK, Germany Overseas trademarks: US, China, Korea, EU

40th The Invention Award Top Prize

2017 Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology Prize for Science and Technology (Technology Category)



7th Monodzukuri Nippon Grand Award
Product and Technology Development
Category Award for Excellence



Certified 2018
Kanagawa *Ganbaru Kigyo*(striving company)

Corporate philosophy

We leverage the science of stillness to do our utmost for the world and its people.

Product policy

We at Shizuka Co., Ltd., in accordance with the corporate philosophy stated above, base every step of the products that we deliver, from the planning through to quotation, design and development, on the quality policy laid out below, and work to secure the proper quality of our facilities.

- 1. As we work to deliver products to our customers in line with our corporate philosophy, we are careful to observe all pertinent laws and regulations as we strive to meet our customers' needs and expectations. We aim for the unending betterment of our customer satisfaction, constantly working towards the maintenance and improvement of product safety and reliability, as well as the elimination of non-conformity in our products.
- 2. We will put in place a quality management system that conforms to "Quality management systems—Requirements" JIS Q 9001 and ISO 9001: 2015, and strive to continually improve its effectiveness.
- 3. We will establish and review quality targets that match our quality policy, and do our utmost to achieve them.
- 4. We will work to ensure that all employees are thoroughly conversant with the quality policy, and to raise their levels of quality awareness.
- 5. We will review the quality policy in order to sustain its appropriateness.

Seven functionalities and properties

In addition to soundproofing and sound insulation, today's customers demand the following functionalities and properties.

Heat insulation Heat dissipation

Weather resistance Water resistance

Humidity control

Sound absorption Sound insulation

Nonflammability Thermal stability

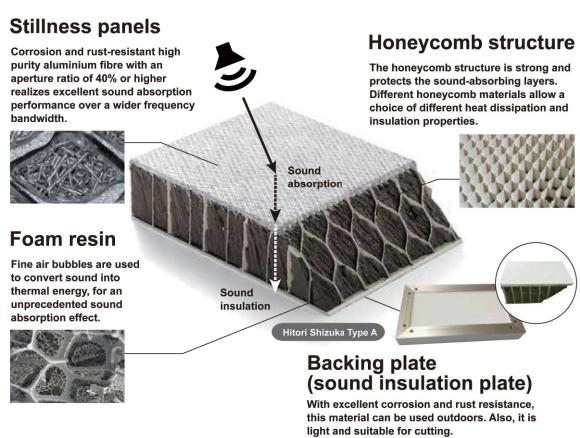
High strength

Formaldehyde absorption

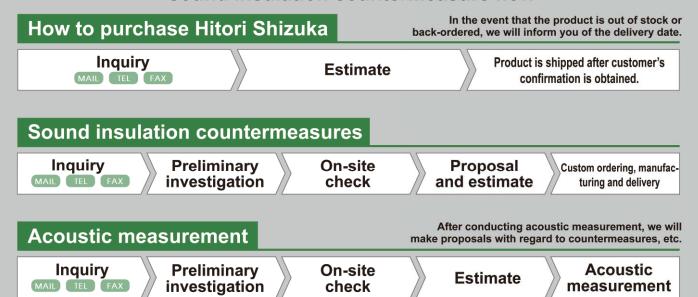
Making science of stillness

The science of stillness comes from knowing sound, and knowing materials.

Unique stillness technologies
~ Generating new possibilities by combining materials ~



Hitori Shizuka purchasing procedure and sound insulation countermeasure flow



We offer various types of products to meet a wide range of customer needs.

Select the product that suits your location and purpose.



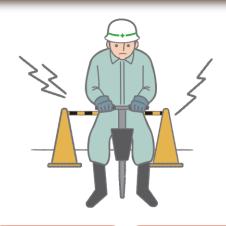




Outdoor noise control

At Construction Sites

Portable sound insulation panels that are adaptable to many different environments



Hitori Shizuka Type A | p6

Hitori Shizuka Type L | p8

For Transportation Sector

Can be utilized in motorways and facilities along railway lines



Hitori Shizuka Type A | p6
Hitori Shizuka Type D | p7

Hitori Shizuka Type L | p8



For Acoustic Spaces

For Sound Studios and Music Venues
Noise control for sound creation
spaces and adjacent areas

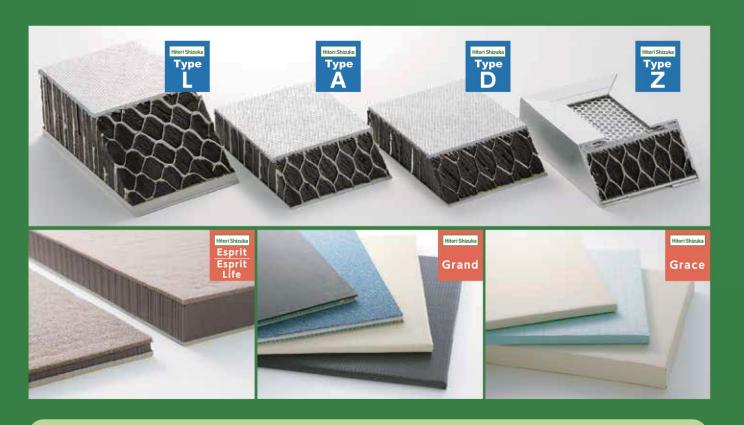


SHIZUKA Stillness Panel | P11



Creating noise blocking environments

Hitori Shizuka series Hitori Shizuka



Five performance properties of the Hitori Shizuka series

Sound absorption and sound insulation covering a wide frequency range

Thin and lightweight for portability Certified flame resistance for safety*1 Honeycomb structure gives excellent 5t/m² load bearing High purity aluminium² for corrosion and rust resistance

*1 Excl. Type Z, Esprit, Esprit Life and Grand. *2 Excl. Esprit, Esprit Life and Grand

Hitori Shizuka series Comparison Table

A wide range of types is available for both indoor and outdoor use, allowing selection of properties to match the needs of the usage environment and purpose.

Hitori Shizuka	Type A	Type D	Type L	Type Z	Esprit	Esprit Life	Grace	Grand
Features	cies	Low to high sound frequencies Absorption and sound insulation, thermal dissipation	sound frequen- cies Absorption and sound insula- tion, thermal	sound frequen- cies Absorption and sound insula- tion, Water re- sistance Dust	absorption Adhesive seals attached Can be cut to size with box-cutter	Adhesive seals attached Can be cut to size with	able Deodorizing effect Moisture con- trol	Floor impact control Can be cut to size with box-cutter Injury prevention when falling
Dimensions (mm)		1,000 x 2,000		1,005 x 2,005	300 x 600	300 x 600	905 x 905	500 x 500
Thickness (mm)	33	33	66	41.5	15	38	40	16
Weight	16 kg per sheet	16 kg per sheet	30 kg per sheet	20 kg per sheet	150 g per sheet	320 g per sheet	3.8 kg per sheet	350 g per sheet
Sound absorb- ing surface material	Aluminium resin	Aluminium resin	Aluminium resin	Perforated metal	Polyethylene	Polyethylene	Flameproof cloth	Polyolefin



Type A is the base model of the Hitori Shizuka series, and enables sound to be blocked with a single panel.

Hitori Shizuka Type A

Type A absorbs and blocks sounds ranging from low to high frequencies. It is very useful as a countermeasure to control factory and machine noise, which have been challenging in the past. Also, its panel-type structure allows it to be combined with optional frames for use in soundproof rooms, as soundproofing walls, or as partitions in rooms and offices.



Special features and performance characteristics

Sound absorption and insulation

Moisture control

Thermal insulation

Outdoor use

Corrosion and rust resistant

Non-flammable

Water resistant

certification No.
MLIT Notification 191 NM-3167

Flame-resistance

The inner four-layer structure provides Type A with excellent sound absorption results. Conventional products are not fully effective for certain ranges of sounds, while Hitori Shizuka Type A is effective across a full spectrum from low to high frequency sounds. This means that there is a significant difference when compared with other products of the same size and weight.

Specifications (width x height x thickness weight)		$1.000\times1.000\times33$ (mm) 8kg/sheet $1.000\times2.000\times33$ (mm) 16kg/sheet Including U-shaped frame $1.005\times1.005\times37$ (mm) 9kg/sheet $1.005\times2.005\times37$ (mm) 18kg/sheet
	Sound absorption sheet	Aluminium fibre
Materials	Sound absorption layer	Foam resin
Wateriale	Core	Specially processed honeycomb
	Sound insulation sheet	Coated aluminium plate

* For details of sound absorption and sound insulation please refer to p14.

* Samples are available for confirmation of form.



 Used as soundproofing panels along motorways



 The panels can be used to create soundproof boxes.



 Used as noise control measures for night time construction.



 Used as mobile soundproofing panels on construction sites.

OPTION

Optional frames can be used to build soundproof rooms and partitions.



End face reinforcement frame (aluminium max. 4m) These frames protect the ends of the panels and prevent deterioration due water seepage

and ultraviolet rays.



H-shaped frame (aluminium max. 4m)
These frames are used to link panels horizontally.
They are used when building soundproof walls
and partitions. These can be used to construct
soundproof rooms with ease.



Corner tie frame (aluminium max. 4m) These frames allow panels to be assembled together at right angles.



Type D uses materials with high thermal conductivity in its sound absorption materials, giving it thermal dissipation functionality, which makes it ideal for thermal control measures.

Hitori Shizuka Type D

In addition to sound absorption and insulation properties, we have enhanced the thermal dissipation of this material, allowing the dissipation of heat generated during the operation of the machinery. The panels can be installed directly inside the machine to reduce the noise.



Special features and performance characteristics

performance characteristics				
Thermal dissipation	Corrosion and rust resistance			
Sound absorption and sound insulation	Non-flammable			
Moisture control	Water resistant			
Can be used outdoors				

Flame-resistance certification No.

MLIT Notification 191 NM-3167

Hitori Shizuka Type D can be combined and used with Type A.

When constructing a machine room, heat tends to accumulate in the upper areas, so by using Type D panels for the upper sections and Type A for the side walls, thermal dissipation properties can be enhanced. In our experiments, we have confirmed a difference in thermal dissipation by around 20°C between a machine room constructed using Type D panels for the upper sections and the one using only Type A panels.



 Noise control for experimental devices

	Specifications (width x height x thickness weight)		$1,000\times1,000\times33$ (mm) 8kg/sheet $1,000\times2,000\times33$ (mm) 16kg/sheet Including U-shaped frame $1,005\times1,005\times37$ (mm) 9kg/sheet $1,005\times2,005\times37$ (mm) 18kg/sheet
	Materials	Sound absorption sheet	Aluminium fibre
		Sound absorption layer	Resin foam
		Core	Aluminium honeycomb
		Sound insulation sheet	Coated aluminium plate

* Details of sound absorption and sound insulation performance are the same as those of Type A.

* The optional frames described on p6 can be used with this product.

* Samples are available for confirmation of form.



Dust and water absorption suppression properties make this product ideal for use in clean rooms and humid environments.

Hitori Shizuka Type Z

Made-to-order product

By adding perforated metal and a weather-resistant film to the sound absorption sheet, we have not only been able to suppress dust, but also to reduce water absorption from the surface, which helps to slow the deterioration of the inner sound absorption layers. This type can be used in clean rooms, where it has so far been difficult to install soundproofing materials, as well as in environments where large volumes of water are used, such as in the washing process of products.



Special features and performance characteristics

performance characteristics				
Dust suppression	Water resistant			
Sound absorption and sound insulation	Thermal insulation			
Can be used outdoors				

Hitori Shizuka installation examples





 Installed over the lid of a drainage ditch for water noise control.

Used in noise control on external ducts

Specifications	1,005×1,005×41,5 (mm)10 kg/sheet
(width x height x thickness weight)	$1,005\times2,005\times41,5 \text{ (mm)} 20 \text{ kg/sheet}$
Sound absorption sheet	Perforated metal, ultra-thin film, and aluminium fibre
Sound Materials Absorption layer	Resin foam
Core	Specially processed honeycomb
Sound insulation sheet	Coated aluminium plate



Enhanced sound insulation performance, ideal for large machinery and low frequency noise control.

Hitori Shizuka Type L

With the same construction as Hitori Shizuka Type A, Type L features a greater amount of sound absorbent filling, giving it enhanced sound absorption and insulation performance. Covering a wide range of sounds from low to high frequencies, it can be used for sound-proofing and sound insulation with large machines and in facilities that generate low frequency sounds, providing a sound insulation performance as good as that of Type A.



Special features and performance characteristics

Sound absorption and sound insulation	Corrosion and rust resistance
Moisture control	Non-flammable
Thermal insulation	Water resistant
Can be used outdoors	

Flame-resistance certification No.

MLIT Notification 192 NM-3168



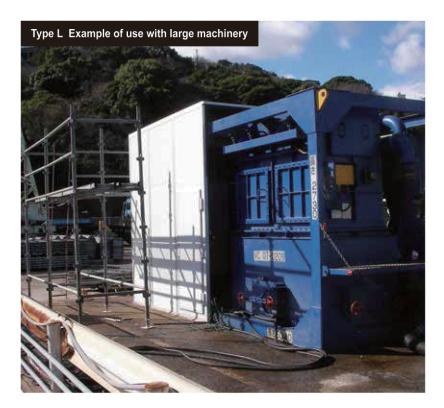


 Effective when used with machinery generating a wide range of sounds.



 Simple assembly to give high performance sound absorption and insulation.

Specifications (width x height x thickness weight)	1,000×1,000×66 (mm) 15 kg/sheet 1,000×2,000×66 (mm) 30 kg/sheet Including U-shaped frame 1,005×1,005×70 (mm) 17 kg/sheet 1,005×2,005×70 (mm) 33 kg/sheet
Sound absorption sheet	Aluminium fibre
Sound absorption layer	Resin foam
Core	Specially processed honeycomb
Sound insulation sheet	Specially processed gypsum board and coated aluminium plate



Absorbs sound from low to high frequencies. Problematic motor noise can also be soundproofed.

Sound absorption and insulation in a single panel. The material can absorb sound across an extensive acoustic range, making it very effective as a noise control measure for power generators and large machines. By adding specially designed frames and castors, it is possible to create noise control enclosures that are easily assembled and repositioned.



 Can also be used as soundproofing walls to control the noise from exterior machinery and vehicles.



Controlling both the indoor sounds and the sounds from neighbouring rooms with its excellent workability

Hitori Shizuka Esprit / Esprit Life

The rear surface has adhesive seals and can be easily be cut with a box-cutter or similar so that the panels can be attached in any required location. For example, the panels can be used for noise control when one room in a residential building or apartment building is being used as an office or similar.

Special features and performance characteristics				
Adhesive seals included	Easily shaped using a box-cutter			
Sound absorption	F ☆☆☆☆ (four star) Class			
Heat resistance 70C	Certified railway rolling stock flame retardant material			
Thermal insulation				





Hitori Shizuka Esprit

The panels are thin, lightweight, and can easily be attached with the rear adhesive seals in any desired location. This makes them ideal for noise control measures. With a thickness of 15mm, this product is very effective in controlling high-pitched sounds, such as human voices.

Specifications (width x heightx thickness weight)		300×600×15(mm) 150g/sheet
	Sound absorption sheet	Foam polyethylene
Materials	Sound absorption layer	Foam resin
	Core	Specially processed honeycomb
	Sound insulation sheet	Foam polyethylene

* Samples are available for confirmation of form.

Hitori Shizuka Esprit Life

Slightly thicker than Hitori Shizuka Esprit, these panels can absorb sound across a wider acoustic range. They are very useful for home-made soundproof rooms and for the soundproofing of large machinery.

Specifications (width x heightx thickness weight)		300×600×38 (mm)320g/sheet
Materials	Sound absorption sheet	Foam polyethylene
	Sound absorption layer	Foam resin
	Core	Specially processed honeycomb
	Sound insulation sheet	Foam polyethylene

^{*} Samples are available for confirmation of form.

Ideally suited to interior spaces with stable temperatures and humidity.



Very easy to work with, Esprit Life enables you to customize soundproofing materials yourself, instead of asking a specialized store or a construction company.



The panels can be installed inside machinery to control operating noise.



The panels have been used in the construction of temporary housing following disaster or other emergencies. They were of use in helping to maintain privacy in living quarters.



Noise control for footstep sounds and vibrations on the floor

Hitori Shizuka Grand

Hitori Shizuka Grand helps to lessen the sounds and vibrations caused by footsteps, which can often be a problem in residential buildings and wooden houses. In addition to being used as under-flooring, it can also be laid between flooring and carpets, where it proves highly effective in lessening the sounds of children's footsteps as they run and play, as well as the noise of objects being dropped on the floor, etc.



Special features and performance characteristics

Light shock (equivalent to LL40) Heavy shock (equivalent to LH55)

F ☆☆☆☆ Class

Easily cut to size with a box-cutter

Thermal insulation



Specifications (width x height x thickness weight)		500×500×16(mm) 350g/sheet
Materials Sound absorption sheet (black)		Foam polyethylene
	Core	Foam resin
	Cole	Specially processed honeycomb
Installation sheet (grey)		Foam polyethylene

^{*} Samples are available for confirmation of form



For noise control and interior décor

Hitori Shizuka Grace

This sound absorbent material can be used as interior décor on walls and ceilings, etc. Due to its ability to lessen reverberation in a room and prevent noise from leaking to other rooms, Hitori Shizuka Grace is ideal for use in homes where people are concerned about the noise of children as they play, or in rooms where people want to listen to music without disturbing their neighbours.

Special features and performance characteristics		
Odor reduction	Thermal insulation	
Sound absorption	Moisture control	
F ☆☆☆☆ (four star) Class		



Specific (width x he thickness	ight x	905×905×40(mm)3.8 kg /sheet
Materials	Sound absorption sheet	Cloth, special felt
	Sound absorption layer	Foam resin
	Core	Specially processed honeycomb
	Sound insulation sheet	Coloured plywood

* Samples are available for confirmation of form

Colour variations available to suit your interior.





Available in four colours, white, black, blue and red.
Please inquire about other colours.

Creating sound enjoyment For acoustic spaces



SHIZUKA Stillness Panel

Shizuka Stillness Panel



Special features and performance characteristics

- Foam resin for excellent sound absorption.
- High strength realized with patented honeycomb structure.
- Four types of materials with different specific gravities.

The addition of internal sound insulation material enables improvement in lower frequency sound insulation.

In popular demand for use in music studios and audio rooms, where the accurate control of reverberation is just as important as sound absorption and insulation.

> The application of the Shizuka Stillness Panel came from professional music creation workplaces, with the advice of richly experienced recording and mastering engineers and musicians. These acoustic panels were developed to leverage sound insulation and absorption properties to the max. By delivering accurate control of sound absorption and sound insulation we can deliver the stillness and ideal acoustic space demanded by music studios, audio rooms and music venues.





Specific (width x h x thickn		1,005×1,005×36(mm) 8kg/sheet 1,005×1,005×69(mm) 15kg/sheet
Materials	Sound absorption sheet	Aluminium fibre
	Sound absorption layer	Foam resin
	Core	Specially processed honeycomb
	Sound insulation sheet	Aluminium panels, with frames for small-lot processing

SERVICES

At Shizuka we have prepared a range of services for customers who have soundproofing and noise control needs.

Acoustic Measurement

Optimal noise control proposals to meet our customers' needs and budget

Experienced and nationally qualified engineers (vibration and noise measurement engineers) conduct noise analysis at our customers' locations. Whether the problem is noise pollution in housing complexes or factory noise control for local residents, we can provide the optimal noise control proposals to meet your needs and budget.



- 1) Noise measurement: measurement of distracting noise.
- ② Reverberation duration measurement: investigation of sound and reverberation in a given space.
- 3 Sound insulation measurement: investigation of abilities of doors and walls, etc., to block sound.
- 4 Floor vibration measurement: investigation of floor vibration sound in apartment buildings, etc.
- (5) Low frequency sound measurement: investigation of low frequency sounds that are normally difficult to hear.





Customization

Preparing individual proposals for the customer's environment and sound sources

In addition to panel type products, we can also provide products that are tailor-made to the customer's individual challenges and installation locations.

Whether corporate or private, we can discuss solutions, starting from a single product.



First of all, try it out!

Panel lending service

Try out a 1 m x 1 m Type A sample in your own usage environment before purchasing (corporate customers only).



Tailor-made solutions!



Order made

We can design and deliver (install) products to match the customer's intended use.



With added soundproofing!



OEM products.

We can provide functionality that matches our customer's original product through material selection and matching product dimensions

Installation examples

Exhibition of acoustic works



Display at UAE Sharjah Biennial

Used in displayed work "silence spins" (Artists: Inosei Gen + Ryuichi Sakamoto + Shiro Takaya)



SHIZUKA Stillness Panel Displayed with arts and music at an exhibition held at the Museum of Contemporary Art Tokyo

— In pursuit of a new form of synaesthesia —

Large machinery noise control

Before work 100db → after work 70db



Combine panels and optional frames, add doors and you have a machine room.

Small machinery noise control

Before work 95db → after work 65db



Panels added to existing box to enhance quietness.

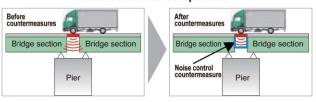
Joint development with East Nippon Expressway



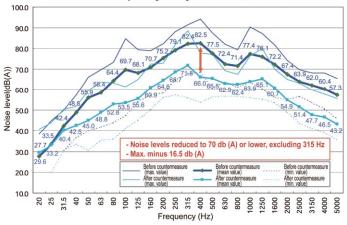
Sudden noise absorption device

Patent No. 4982767

Before and after comparison



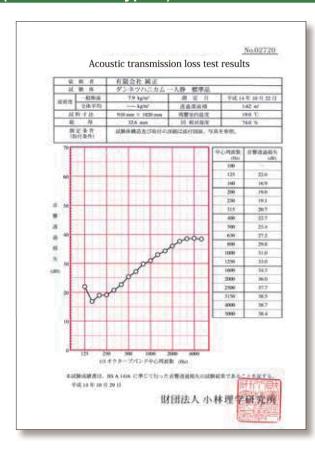
Sudden noise frequency analysis results for 100 vehicles

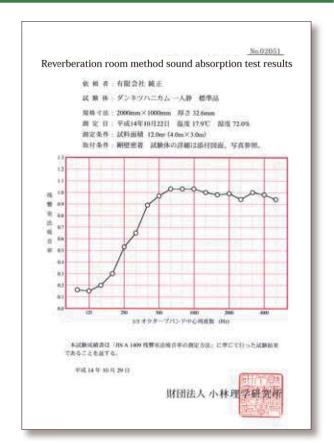


Performance data

Sound absorption rate — transmission loss performance (Hitori Shizuka Type A)

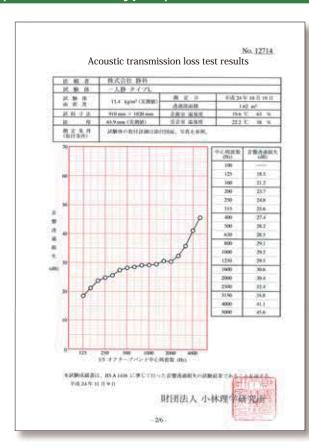
As measured by Kobayasi Institute of Physical Research

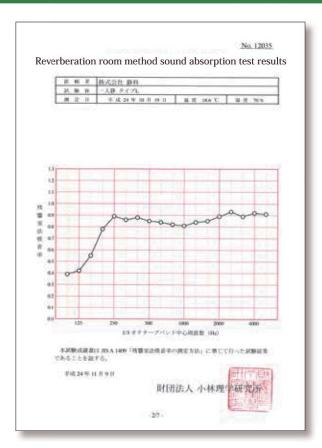




Sound absorption rate — transmission loss performance (Hitori Shizuka Type L)

As measured by Kobayasi Institute of Physical Research





Company overview

Company name: Shizuka Co., Ltd. Representative: Shunji TAKAHASHI Factory address: Kaneda 492-1, Atsugi, Kanagawa 243-0807 Founded: January 23, 2006 **Business:** Manufacture and sales of soundproofing materials Hitori Shizuka

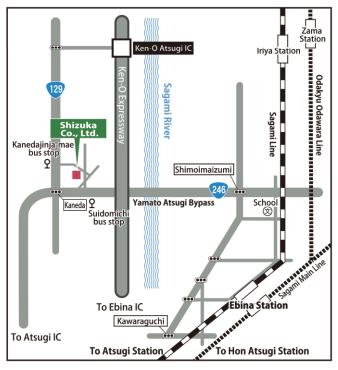
Manufacture and sales of acoustic panels SHIZUKA Stillness Panel Acoustic measurement

Soundproofing using steel frames and supporting frames

Certification: ISO9001: 2015

General construction company license approved by Kanagawa prefectural

governor (General 30) No. 85321



Access By train and bus

Alight at Ebina Station on the Odakyu Line or at Ebina Station on the Sagami Line.

Take a bus from the west exit of Ebina Station, and get off at "Suidou-michi." Three minutes on foot.

Alight at Hon Atsugi Station on the Odakyu Line. Take a bus from the east exit bus centre, and get off at "Kaneda Jinja-mae." Ten minutes on foot.

Five minutes from Keno Atsugi IC on the Ken-O Expressway.



Consult us concerning solutions for soundproofing and noise control

Enquiries and purchases:

Shizuka Co., Ltd.









Business hours: 8:30 to 17:00 (Monday to Friday) Closed: Saturdays, Sundays, public holidays, and during year-end / New Year's holidays

For individual and corporate customers, please contact us for orders, inquiries, and samples, etc. Please remember to include your name, contact details, address, and the name and quantity of desired product.



 $046-224-7200 \bigcirc 046-224-7210$





MAIL info@hitori-shizuka.co.jp



