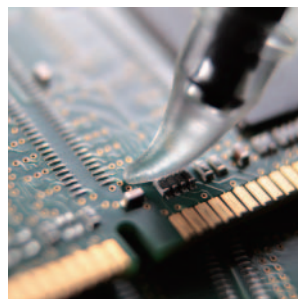
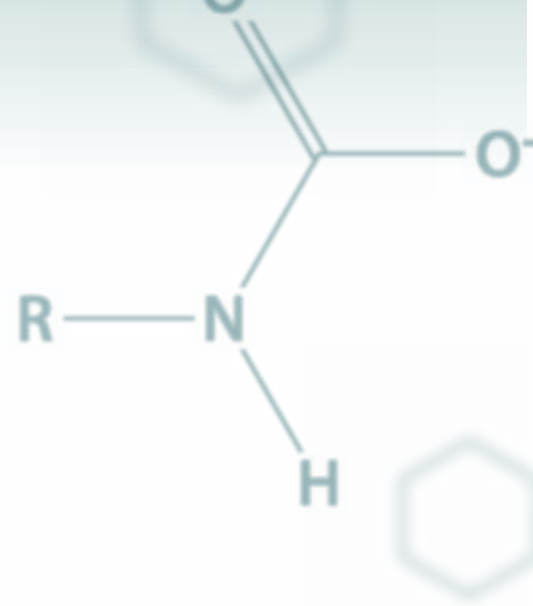




Exseal Corporation

# URETHANE GEL SERIES



Vol. 2

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# Lift-mat™

It can remove a dirt of tire, just weight vehicles (ex: lift/AGV) passing through, and use repeatedly by cleaning.

RoHS

MSDS

Clean supplies

- It is the dust removal mat that can be used repeatedly.
- It has a strength to withstand a weight of weight vehicles unlike conventional products.
- It is economical because you can use a few years if you place once.
- It does not give any extra garbage and scatter dust because you don't turn over like conventional mat.
- The dirt of mat can be cleaned simply by wiping with water or special detergent.

## Use

- It removes the dirt of tire for weight vehicles of indoor forklift and AGV.
- Contamination and HACCP measures.

## Example

- For transport passage of forklift / AGV
- For hand-lift / heavy vehicles
- For air shower / clean room

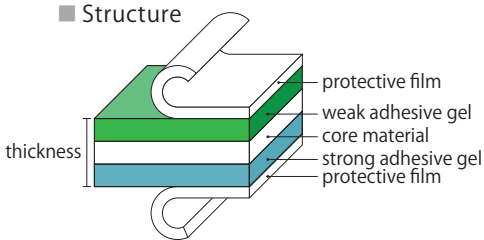


Removed dust supplies

Fixation / Non skid supplies

## Specifications / Precautions

### ■ Structure



### ■ Required size and indication of use

The aim of the mat length is in 3 times of tire rotation.

It is possible to use for 1~2 years. Correspond to weight truck of about 3 ~ 4t total weight, hand lift, AGV, the 2.5t forklift.

If you care the step of the mat, please use **Aluminum slope (P10)**.

※It is different by using environment, or way of times each day.

### ■ Precautions

It is unfit to use at the direct doorway from outdoor and indoor, because there are big influence of ultraviolet rays or heat that deteriorate the urethane.

We recommend use indoor.

※There is a possibility of mat damaged, if the tire roll on the mat and forklift get catch. So please don't stop the forklift on the mat, and not to sudden acceleration from on the mat.

※Please install the smooth location not at concrete. It is suitable for coating floor and resin floor.



Let's check the animation of Lift-mat !

- You can see how to use of Lift-mat in the video from the right QR code,



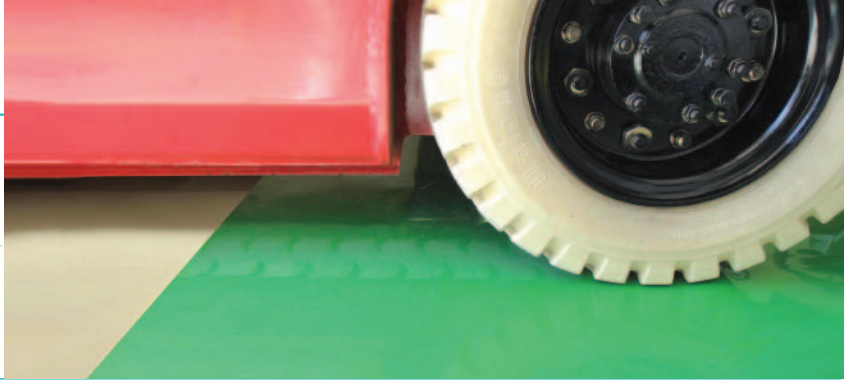
## How to set up & use

- →P.11

Resin for molding

Vibrational and Impact absorption / Screen protection supplies





### ATP(+AMP) Wipe inspection

- Forklift runs on the mat after the tire three turns running for 1 minute outdoors. Then measure the remained pollutant. The test is done that forklift runs 1000 traffic for 20 hours.

The number of passing	The ratio of removing pollutant
<b>first time</b>	<b>99%</b>
<b>1000 times</b>	<b>99%</b>

※This result is a confirmation test in-house. There is also the case that the same result can not be obtained.



①Pass on the mat with dirty tire



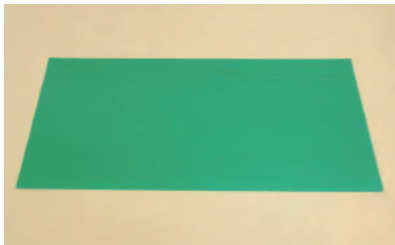
②Pick the garbage remained in tire



③Measure in the machine

## Lift-mat™

Number / Size / Price



- The mat remove the fine dust of a tire.  
If you care the step of the mat, please use Aluminum slope (P10).

Number	Thickness(mm)	Size(mm)	Color	Price(not in tax)
LIFT3-0906	3.0	900×600	Surface : green Floor side : blue green	¥ 33,000
LIFT3-1209		1200×900		¥ 65,000
LIFT3-1812		1800×1200		¥ 130,000
★ LIFT3-2412		2400×1200		¥ 173,000
★ LIFT3-3612		3600×1200		¥ 260,000

※We hear cut processing of sheet you want. Please contact us.

※The sign of "★" is manufactured after receipt of order. It takes a long time to delivery.

## Lift-mat™ 4 pieces set

Number / Size / Price



- The great deal set is with the sponge mop and cleaner (500m ℓ) and slopes.
- This perfect set is the best for beginners to use Lift-mat.

Number	Thickness(mm)	Size(mm)	Contents	Price(not in tax)
LIFT3-0906SET	3.0	900×600	3mm thick mat+mop+cleaner +slope(900x60mm)*2	¥ 42,000
LIFT3-1209SET		1200×900	3mm thick mat+mop+cleaner +slope(1200x60mm)*2	¥ 76,000



# Step-mat™ series

It can remove a dirt from feet, just people or weight truck passing through, and use repeatedly by cleaning.

RoHS    MSDS    Prevent electrostatic    Antibacterial

- It is the dust removal mat that can be used repeatedly.
- Thick and soft mat is familiar with the uneven portion of the sole, and catch a small dirt and dust firmly.
- Natural antibacterial agents were mixed and the mat prevents breeding of bacteria.
- It does not give any extra garbage and scatter dust because you don't turn over like conventional mat.
- The dirt of mat can be cleaned simply by wiping with water or special detergent.
- Surface resistance is  $3.2 \times 10^9 \Omega$ , and there is an antistatic effect.

## Use

- It removes the dirt of tire for weight truck and the sole.
- Contamination and HACCP measures.

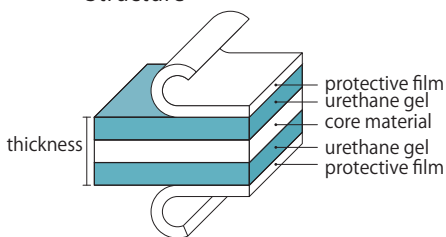
## Example

- In front of clean room
- For the passage of people and the truck passes well.
- For air shower / clean room



## Specifications / Precautions

### Structure



### Required size and indication of use

The aim of the mat length is in 3 times foot on the mat.  
It is possible to use for 2~3 years.

If you care the step of the mat, please use **Aluminum slope (P10)**.

※It is different by using environment, or way of times each day.

### Precautions

It is unfit to use at the direct doorway from outdoor and indoor, because there are big influence of ultraviolet rays or heat that deteriorate the urethane.  
We recommend use indoor.

※ There is a possibility of mat damaged, if the tire roll on the mat and forklift get catch. So please don't stop the forklift on the mat, and not to sudden acceleration from on the mat.

※ Please install the smooth location not at concrete. It is suitable for coating floor and resin floor.



Let's check the animation of Step-mat !

- You can see how to use of Step-mat in the video from the right QR code,



## How to set up & use

■ →P.11



### ATP(+AMP) Wipe inspection

- The turning over type of a mat cannot remove about 30% of waste, so the dust move while attached to the shoe sole. On the other hand Step-mat can remove more than 99%.

One minute walk indoor, and three steps walk on mat then measure the remained dirt.

※This result is a confirmation test in-house. There is also the case that the same result can not be obtained.

Adhesive mat of turning type	Step-mat 3mm thick
67%	99.9%



① Walking indoor



② Step on the mat with dirty shoes



③ Pick the garbage remained in shoes

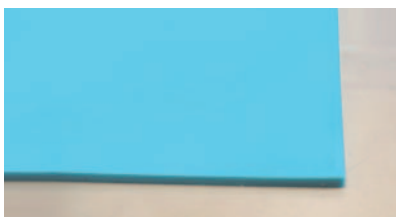


④ Measure in the machine

## Step-mat™

Number / Size / Price

※We hear cut processing of sheet you want. Please contact us.



### Step-mat™ 3mm thick

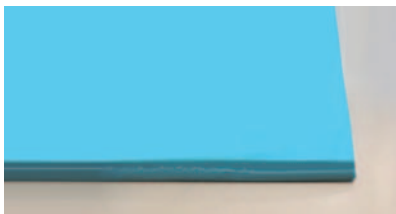
It is possible to install in front of a hinged door on account of thin type.

Number	Thickness(mm)	Size(mm)	Color	Price(not in tax)
MAT3-0906	3.0	900×600	blue green	¥ 29,000
MAT3-1209		1200×900		¥ 58,000

This mat size is cut to fit the under-mat.

※Under-mat is sold separately.

Number	Thickness(mm)	Size(mm)	Color	Price(not in tax)
MAT3-4590	3.0	895×450	blue green	¥ 22,000



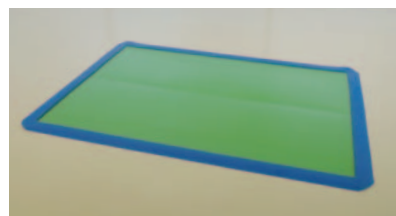
### Step-mat™ 6mm thick

Thick and soft gel catch a small dirt firmly.

Number	Thickness(mm)	Size(mm)	Color	Price(not in tax)
MAT6-0906	6.0	900×600	blue green	¥ 32,000
MAT6-1209		1200×900		¥ 63,000

## Under-mat for 3mm thick

Number / Size / Price



### Under-mat for 3mm thick

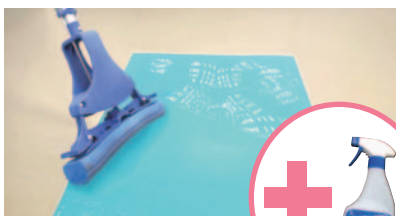
Corresponding to "MAT3-0906" and "MAT3-4590".

Number	Size(mm)	Color	Price(not in tax)
UMAT-4590	1000×550 (All dimension\$)	Base: green Slope: blue	¥ 9,400
UMAT-0906	990×690 (All dimension\$)		¥ 9,800

※Step-mat is sold separately.

## Step-mat™ 3 pieces set

Number / Size / Price



- The great deal set is with the sponge mop and cleaner (500ml) and slopes.
- This perfect set is the best for beginners to use Step-mat.

Number	Thickness(mm)	Size(mm)	Contents	Price(not in tax)
MAT3-0906SET	3.0	900×600	3mm thick mat+mop+cleaner	¥ 32,000
MAT3-1209SET	6.0	900×600	6mm thick mat+mop+cleaner	¥ 35,000



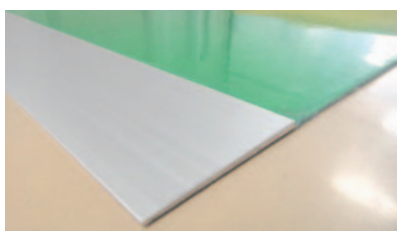
# Lift-mat™ / Step-mat™ Optional goods

The optional goods when use Lift-mat and Step-mat.

MSDS

## Aluminum slope Number / Size / Price

- The slope solve the step of Lift-mat or Step-mat. It prevents the end of the mat that is caught by the tire or truck, and more reduce the risk of damage. The type of stuck with both sides tape, so installation is easy. It is sold from one side.



### Aluminum slope for 3mm thick

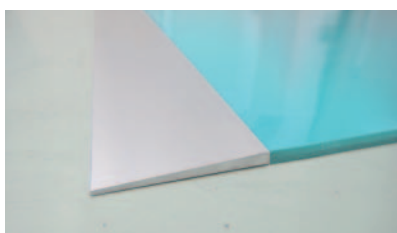
For Lift-mat / Step-mat 3mm thick.

Number	Thickness(mm)	Size(mm)	Color	Price(not in tax)
<b>MAT3-SLA09</b>	3.0	900×60	silver	¥ 3,800
<b>MAT3-SLA10</b>		1000×60		¥ 4,400
<b>MAT3-SLA12</b>		1200×60		¥ 5,000

### Aluminum slope for 6mm thick

The slope is recommended when the step of Step-mat 6mm thick is anxious.

The type of stuck with both sides tape, so installation is easy. It is sold from one side.



Number	Thickness(mm)	Size(mm)	Color	Price(not in tax)
<b>MAT6-SLA09</b>	6.0	900×60	silver	¥ 7,000
<b>MAT6-SLA12</b>		1200×60		¥ 9,000

## Disinfectant cleaner Number / Size / Price



- The special detergent for Lift-mat / Step-mat / adhesive roller.
- It has a effect of disinfectant, so mat and mop also keep clean.
- We prepare a spray type (500m ℓ ) and refilled type of deals (10 ℓ ).
- Once cleaned by a cleaner in the week, the mat is long-lasting.

Number	Volume	Detail	Price(not in tax)
<b>MAT-CL05</b>	500m ℓ	With spray vessel	¥ 1,200
<b>MAT-CL10</b>	10 ℓ	1 box (without spray vessel)	¥ 15,000

## Sponge mop Number / Size / Price



- The dust is hard to appear.
- It is possible to clean easily, and remove the dirt firmly.
- You can drain off the water by lever at hand without having to bend over.

Number	Detail	Price(not in tax)
<b>MAT-MOP2</b>	Sponge mop	¥ 3,000
<b>MAT-MOP2-S</b>	Spare of mop (1 piece)	¥ 1,500

Length of mop : 1100~1350mm Width : 28.5mm  
 ※The length of the handle is adjustable.  
 ※Please use after a sponge part is well-moistened and becomes soft.

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

Resin for molding



# How to use of Lift-mat / Step-mat

## How to set up

- ① Wet with spray after cleaning the installation floor with wet cloth.
- ② Peel off the protective film of the installation surface. Then decide a position and temporarily place the mat on the wet floor.  
※Surface of the blue-green is on the floor. Step-mat is same material in both sides.
- ③ Lift the mat half, and set up with pushing an air and moisture between the mat and floor from on the film by using a repressor roller, ruler or hands.
- ④ Wipe on the mat with a wet cloth like a extruding left air.
- ⑤ After the mat and floor dried, please peel off the protective film and use.

- ⚠ Please do not use at rough floor like a concrete.
- ⚠ Clean the installation place before you set up. The mat has adhesion, so it doesn't be needed double-sided tape.

※Please do not peel off the clear film of surface until installation is finished. If you peel off before installation, it may damage the surface.

※If there is an air between a floor and the mat when you set up, it causes broken and separation.

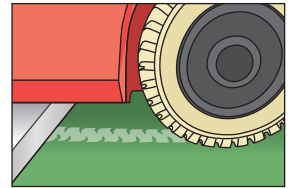
※The wet floor and mat dry in 5 hours or more. (The time is different slightly depending on the season.)



## How to use

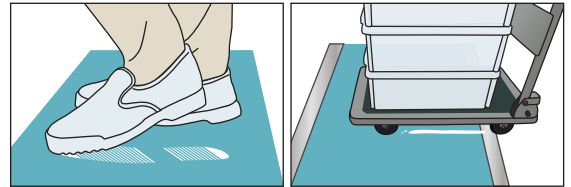
### ● Lift-mat

It removes a fine dust of tire, only by passing on the mat with the forklift. If you twist a tire or do sudden acceleration on the mat, it causes broken and separation. So please set up at location of straight only.



### ● Step-mat

It removes a fine dust of the sole of shoes by stepping on the mat. And also removes the dust of wheels by lightweight cart or hand truck pass on the mat.



**※Lift-mat / Step-mat are unsuitable for doorway of indoor and outdoor directly, because this is adhesive mat for fine dust.**

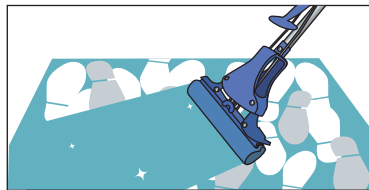
## How to maintenance -Please clean frequently!-

- ① Wipe the surface of mat with a mop or wet cloth.

※It is possible to clean easily if you use "disinfectant cleaner".



- ② Gather the dust by a mop or wet cloth.



- ③ Remove the remained water and dust by wiper or wet cloth.

※It gets to be difficult to clean if you leave the dirt.



※There is a possible to enter a dust or water in back, so please clean the back of mat and floor with lifting a mat.

※Do not use not wet cloth because it damages the mat.



# Adhesive roller series

It is possible to remove a dust on glove or clothes easily by rolling on bodies and use repeatedly by cleaning.

RoHS   MSDS   Prevent electrostatic   Antibacterial

- Glue is not remained, because of self-adhesive of urethane.
- It is easy to clean a dirt of roller by washing with exclusive detergent or water.
- Natural antibacterial agents were mixed and the mat prevents breeding of bacteria.
- It is economical because there is not a large cost of maintenance.
- Silicone is not included.
- Surface resistance is  $3.2 \times 10^9 \Omega$ , and there is an antistatic effect.

## Use

- It removes the dirt of glove and clothes.
- Contamination and HACCP measures.

## Example

- Before entering a clean room and working chamber.
- It can be used with confidence in the food industry because there are antibacterial activity.



## Period of use and Number of times of use

- Period of use  
It is possible to use for 1~2 years. ※It is different by using environment, or way of times each day.
- Number of times of use  
**Please clean the Roller for hand once to 30 times, and the Roller for body once to 20 times of continuous use. The number of cleaning times is different by the condition attached dust.**  
※In the above, it is used as a reference handwashing with handsorp. Please confirm.



### Check the result of performance test in detail

- You can see the detail data of performance test of Roller for hand/body from the right QR code.



## Instructions on using and Precautions

- It is used to hold in hands and roll on clothes, then remove the dirt of hands or clothes.
- Thick and soft gel is familiar with the uneven portion of the hand and clothes, and catch the dust firmly.
- If the adhesion weaken, please wash with running water and dry well.
- In addition to the daily cleaning, we recommend to use "Disinfectant Cleaner (P10)" once a week. Then it is possible to use longer and more clean.



### ATP(+AMP) Wipe inspection

- The turning over type of a roller cannot remove about 40% of waste, so the dust move while attached to the hands or clothes. On the other hand Roller for Hand and Body can remove more than 98%.

	Pollutant removal rate
Adhesive roller of turning type	61.6%
Roller for Hand / Body	<b>98.5%</b>

※This result is a confirmation test in-house. There is also the case that the same result can not be obtained.

※You can check the contents of test from P12.

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and impact absorption / Screen protection supplies

Resin for molding

## Roller for hand

Number / Size / Price

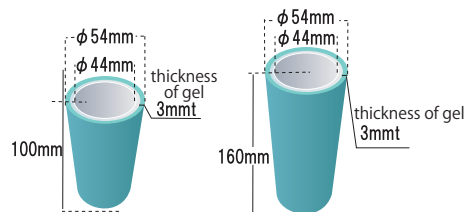


- It is used to hold in hands or roll on hands.
- We have 2 sizes.

Number	Size of roller(mm)	Color	Price(not in tax)
HR15-5010	Φ54×100mm	blue green	¥ 4,000
HR15-5016	Φ54×160mm		¥ 5,000

■ HR15-5010

■ HR15-5016



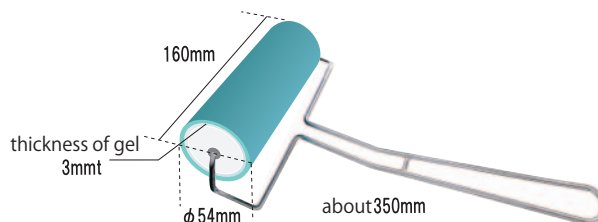
## Roller for body

Number / Size / Price



- It is for the body, which with a handle to make it easier to have. It is possible to remove a dust of hard-to-reach places, such as back easily.
- Even also placed on the desk through the wall, the roller portion does not touch the surface.

Number	Size of roller(mm)	Color	Price(not in tax)
BR15-5016	Φ54×160mm (All dimension : 35cm)	blue green	¥ 8,000
BR15-5016-S	Φ54×160mm (Spare of roller)		¥ 6,500

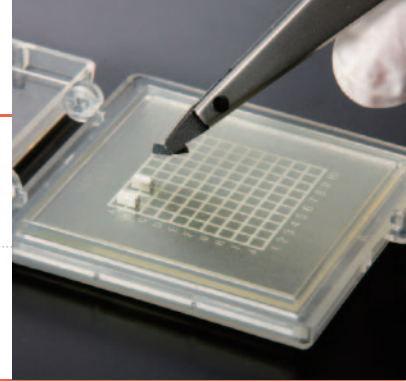






# Gel base™ series

## Convey case of the semiconductive chip and the precision devise.



RoHS    MSDS    No plasticizer    Antistatic

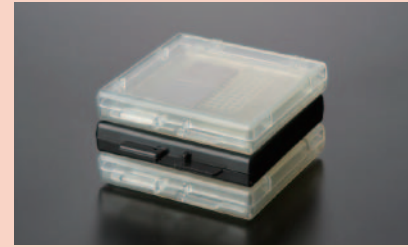
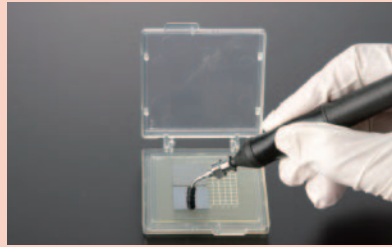
- It keeps the parts by self-adhesive of special urethane gel.
- There is a conductive in gel, case, and both in the tray.
- It is possible to pick up the device even if there is no vacuum device because of uneven surface.
- You can transport and store while stacking case, and both in the tray.

### Use

- Storage and transport of device

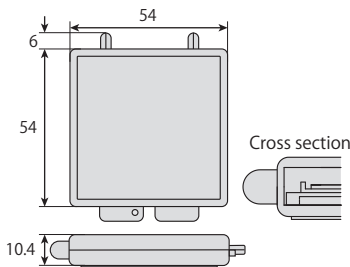
### Example

- It is possible to use to semiconductor, LED, precision, optical, and electronic instrument.

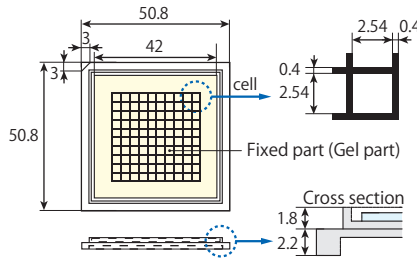


## Specifications / Characteristic

- The shape of tray is easy to use as it is to an existing jig.
- Gel base case (2 inch size)
- Gel base tray (2 inch size)



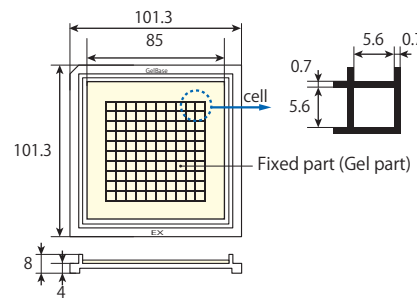
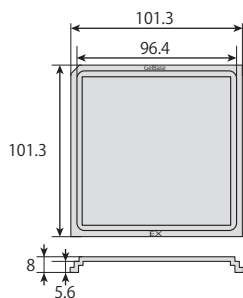
※It may be possible to use as it is to an existing jig for 2 inch size.



### Gel base tray (2 inch size)

	External dimensions(mm)	Color	Resistivity (Ω)	Use or Not of silicon
Case	54×54×10.4	black	10 <sup>6</sup>	Not used
		clear	10 <sup>9</sup>	Not used
Tray	50.8×50.8×4	black	10 <sup>6</sup>	Not used
		clear	10 <sup>9</sup>	Not used
Gel	42×42	amber	10 <sup>8</sup>	Not used
				Only used in spacer

- Gel base case cover (4 inch size)
- Gel base case body (4 inch size)



### Gel base tray (4 inch size)

	External dimensions(mm)	Color	Resistivity (Ω)	Use or Not of silicon
Case	Whole 101.3×101.3×8 Upper 96.4×96.4×2.4	black	10 <sup>6</sup>	Not used
		clear	10 <sup>9</sup>	Not used
Tray	101.3×101.3×8	black	10 <sup>6</sup>	Not used
		clear	10 <sup>9</sup>	Not used
Gel	85×85	amber	10 <sup>8</sup>	Not used
				Only used in spacer

※The above measurements are reference values, not guaranteed ones.

※Also we heard logo and company name printed. (It is special order item.) Please contact.

## Instructions on using and Precautions

- Determining the gel shapes to suit the device.
  - Putting small parts on the gel by using tweezers.
  - It kept cases with stacking, or conveyed to next step.
- ※It is possible to stack only trays for 2 inch size.

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

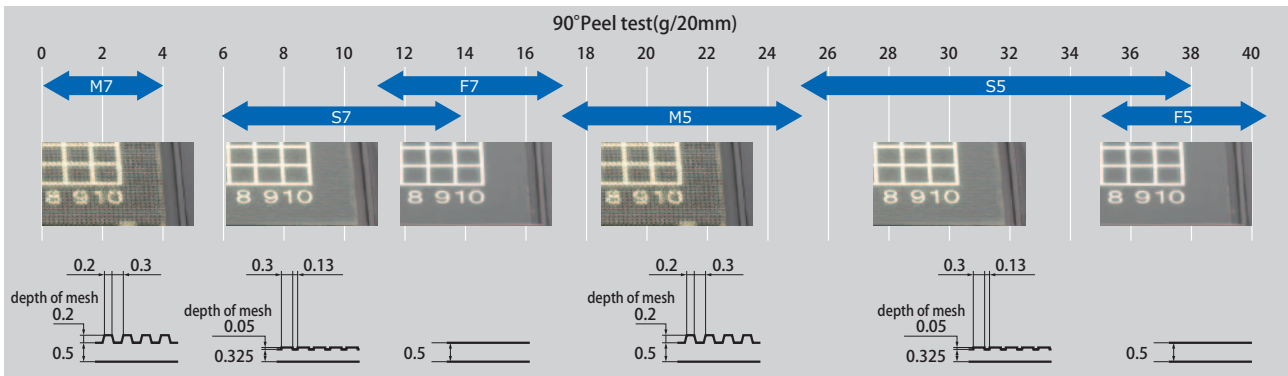
Resin for molding

# Gel base™ series

Convey case of the semiconductive chip and the precision devise.

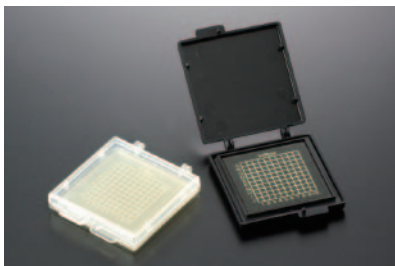
RoHS    MSDS    No plasticizer    Antistatic

## ■ Holding force



## Gel base™ (2 inch)

Number / Size / Price



- This set is case and tray.
- You can choice a case from black or clear.

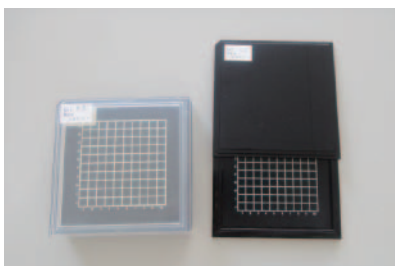
Number		Shape of gel	Hardness	Holding force	Price(not in tax)
black	clear				
CB-M7	CT-M7	Mesh M7	70	0 ~ 4	¥ 1,200
CB-M5	CT-M5	Mesh M5	50	17 ~ 25	¥ 1,200
CB-S7	CT-S7	Mesh S7	70	4 ~ 12	¥ 1,200
CB-S5	CT-S5	Mesh S5	50	25 ~ 38	¥ 1,200
CB-F7	CT-F7	Flat F7	70	11 ~ 17	¥ 800
CB-F5	CT-F5	Flat F5	50	35 ~ 40	¥ 800

※We heard the sale of only the tray of 2 inch. Please contact.

- Height of devices entering the case  
2 inch size : M7 • M5...2.3mm / S7 • S5...2.4mm / F7 • F5...2.5mm

## Gel base™ (4 inch)

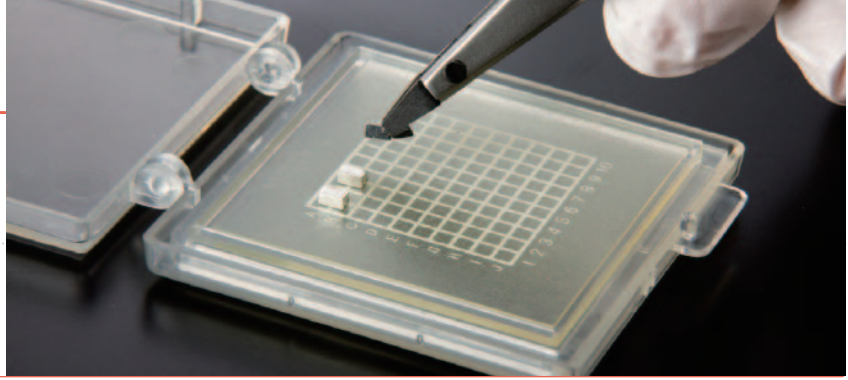
Number / Size / Price



- This set is cover and body.

Number		Shape of gel	Hardness	Holding force	Price(not in tax)
black	clear				
4CB-M7	4CT-M7	Mesh M7	70	0 ~ 4	¥ 3,000
4CB-M5	4CT-M5	Mesh M5	50	17 ~ 25	¥ 3,000
4CB-S7	4CT-S7	Mesh S7	70	4 ~ 12	¥ 3,000
4CB-S5	4CT-S5	Mesh S5	50	25 ~ 38	¥ 3,000
4CB-F7	4CT-F7	Flat F7	70	11 ~ 17	¥ 2,400
4CB-F5	4CT-F5	Flat F5	50	35 ~ 40	¥ 2,400

- Height of devices entering the case  
4 inch size : All type...3mm



Clean supplies

Fixation / Non skid supplies

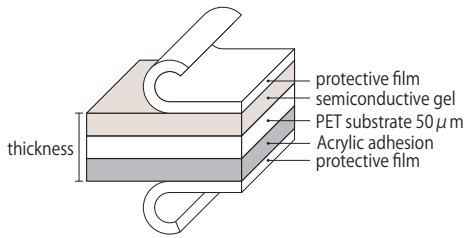
Removed dust supplies

Vibrational and impact absorption / Screen protection supplies

Resin for molding

## Gel base™ sheet (Flat type)

Number / Size / Price



- It is possible to paste it into your tray with cutting a sheet.

Number	Shape	Thickness(mm)	Color	Size(mm)	Price(not in tax)
<b>KW-F5T</b>	Flat F5	0.3	Amber	500×400	¥ 5,600

※We heard the cutting and punching. Please contact.

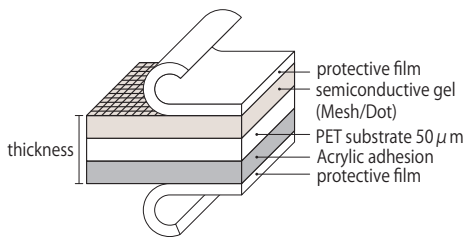
### Specifications / Characteristic

	Holding force(gf/20mm)	Surface resistivity(Ω)
Gel part	35~40	5.8×10 <sup>8</sup>
Adhesive one	2,050	

※We can also prepare F3(strong) or F7(weak) of holding force. (This is produced an order.) Please contact.  
 ※We heard the cutting and punching. Please contact.

## Gel base™ sheet (Mesh/Dot type)

Number / Size / Price

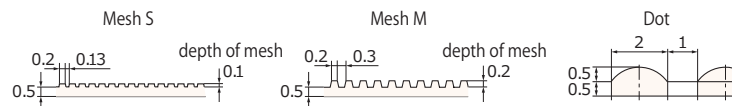


- Surface shape is uneven.

Number	Shape	Thickness(mm)	Color	Size(mm)	Price(not in tax)
<b>KW-S7</b>	Mesh S7	0.6	Amber	240×240	¥ 8,000
<b>KW-M7</b>	Mesh M7	0.7		240×240	¥ 8,000
<b>KW-D7</b>	Dot D7	1.0		240×240	¥ 8,000

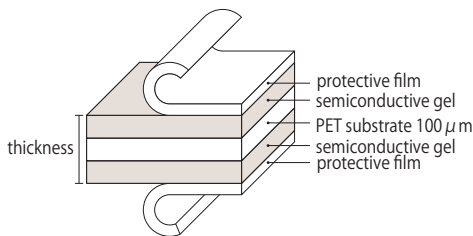
※It is possible to change the holding force of slightly strong gel. Please contact.  
 ※We heard the cutting and punching. Please contact.

- Size of gel (unit : mm)



## Gel base™ sheet (Both sides gel)

Number / Size / Price



- Same gel material in both sides.

Number	Thickness(mm)	Color	Size(mm)	Price(not in tax)
<b>KW-F5</b>	0.5	Amber	500×400	¥ 5,120

### Specifications / Characteristic

	Holding force(gf/20mm)	Surface resistivity(Ω)
Gel part	35~40	5.8×10 <sup>8</sup>

※We can also prepare F3(strong) or F7(weak) of holding force. (This is produced an order.) Please contact.  
 ※We heard the cutting and punching. Please contact.

# Gel tack series

## Shock absorbing / fall prevention sheet of earthquake measures and strong adhesion

RoHS   MSDS   Food hygiene   No plasticizer   Antistatic

- Gel have a powerful self-adhesion, and it is possible to use widely as vibrational and shocked absorption, and cushioning.
- It does not contaminate a contact surface because of unincluding a plasticizer.
- It is possible to paste and peel off in spite of powerful adhesion. Glue is not remained.
- It is possible to use as a suction pad.
- The adhesion is reproduced by washing in water.
- Surface resistance is  $10^{10} \Omega/\square$ , and there is an antistatic effect.

### Office / Home

- Fall prevention for OA equipment in the office, file cabinets, and TV.

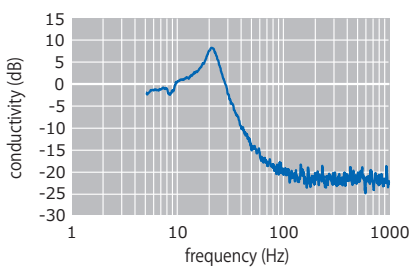
### Factory / Laboratory

- Fall prevention for machine and measurement equipment in factories and research facilities.



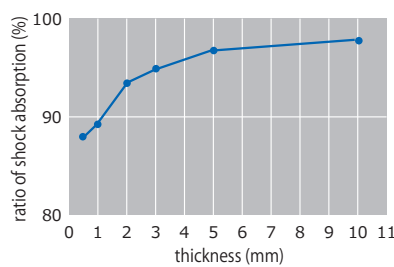
## Specifications / Characteristic

### ■ Frequency characteristic



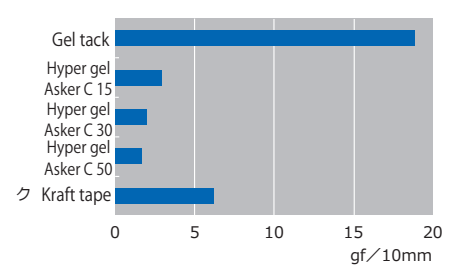
test condition / weight : 4kg   test pieces : 50x50x30mm

### ■ Shock absorption



test pieces : Gel tack  $\square$ 20 each thickness  
fall ball : 5.5g steel ball   drop height : 100mm

### ■ Adhesion comparison (90°C peel)



### ■ Physical properties

Item	Numerical value
Conductivity	Surface resistance $\neq 10 \Omega/\square$
Heatresistant temperature	-30~80°C
Proper load	0.93kgf/cm <sup>2</sup>
Hardness	HcS 25
Visible light transmittance	92.7%
Food hygiene law	Containers and packaging fit

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

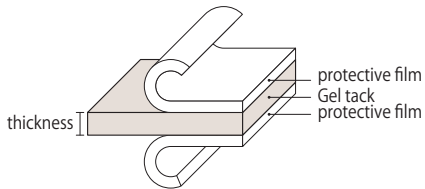
Resin for molding



※Photo is image

## Gel tack sheet

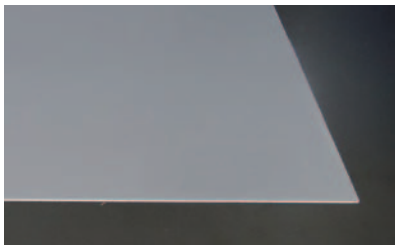
Number / Size / Price



- There are size of 100x100mm~500x500mm.

Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
GT-1	1.0	Ascker C 25	500x500	transparency	¥ 7,400
GT-2	2.0				¥ 11,400
GT-3	3.0				¥ 15,900
GT-5	5.0				¥ 24,400

※We heard the cutting and punching. Please contact.

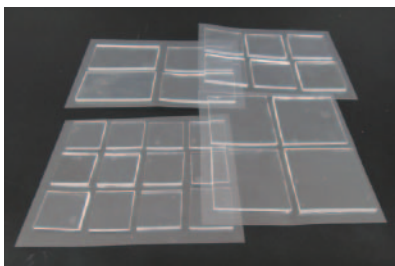


Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
GT2-1010	2	Ascker C 25	100x100	transparency	¥ 600
GT2-2525	2		250x250		¥ 2,900
GT2-2550	2		500x250		¥ 5,700
GT3-1010	3		100x100		¥ 760
GT3-2525	3		250x250		¥ 3,980
GT3-2550	3		500x250		¥ 7,960
GT5-1010	5		100x100		¥ 1,150
GT5-2525	5		250x250		¥ 6,100
GT5-2550	5		500x250		¥ 12,200

※We heard the cutting and punching. Please contact.

## Gel tack (square type)

Number / Size / Price



- We prepare the affordable size.
- The square type is punched in 20x20mm~80x80mm for usable.

Number	Thickness (mm)	Hardness	Size(mm)	Number per sheet	Color	Price (not in tax)
GT2-20	2.0	Ascker C 25	20x20	100	transparency	¥ 3,500
GT2-30	2.0		30x30	42		¥ 3,800
GT2-40	2.0		40x40	25		¥ 3,500
GT2-50	2.0		50x50	16		¥ 3,350
GT2-60	2.0		60x60	9		¥ 3,250
GT2-80	2.0		80x80	4		¥ 3,100
GT5-20	5.0		20x20	81		¥ 7,000
GT5-30	5.0		30x30	42		¥ 7,000
GT5-40	5.0		40x40	25		¥ 6,700
GT5-50	5.0		50x50	16		¥ 6,580
GT5-60	5.0		60x60	9		¥ 6,460
GT5-80	5.0		80x80	4		¥ 6,340

※Total size of sheet is 250x250mm.

### Instructions on using and Precautions

- It is possible to cut to the size of your choice, such as scissors or roller cutters.
  - ※It is hard to cut thicker than 3mm.
- Clean the attachment surface.
- Paste the protective film on the one side after peeling off, and then install on the other side.
- Please pull out slowly by pinching the end of the gel when you peel off.
  - ※Please install the gel as evenly force is applied to four corners of the bottom.
  - ※Please use only for temporary fixed, because it is easy to peel off because of the characteristic that is able to paste and peel off on the surface of wall or vertical.





# Gel tack series

Shock absorbing / fall prevention sheet of earthquake measures and strong adhesion

RoHS   MSDS   Food hygiene   No plasticizer   Antistatic



Clean supplies

Fixation / Non skid supplies

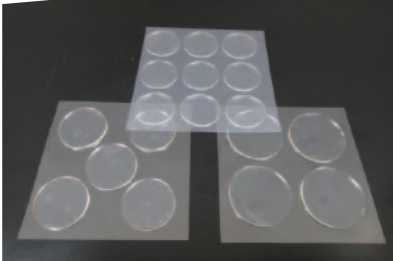
Removed dust supplies

Vibrational and impact absorption / Screen protection supplies

Resin for molding

## Gel tack (round type)

Number / Size / Price



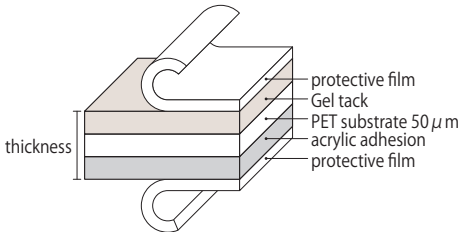
■ The square type is punched in 20mm φ ~ 80mm φ for usable.

Number	Thickness (mm)	Hardness	Size(mm φ)	Number per sheet	Color	Price (not in tax)
GT2-20D	2.0	Asker C 25	20	100	transparency	¥ 4,900
GT2-30D	2.0		30	49		¥ 4,050
GT2-40D	2.0		40	25		¥ 3,600
GT2-50D	2.0		50	16		¥ 3,450
GT2-60D	2.0		60	9		¥ 3,250
GT2-80D	2.0		80	5		¥ 3,100
GT2-100D	2.0		100	4		¥ 3,100
GT5-20D	5.0		20	81		¥ 8,000
GT5-30D	5.0		30	36		¥ 7,040
GT5-40D	5.0		40	25		¥ 6,900
GT5-50D	5.0		50	16		¥ 6,700
GT5-60D	5.0		60	9		¥ 6,460
GT5-80D	5.0		80	5		¥ 6,320
GT5-100D	5.0		100	4		¥ 6,300

※Total size of sheet is 250x250mm.

## Gel tack with adhesion

Number / Size / Price



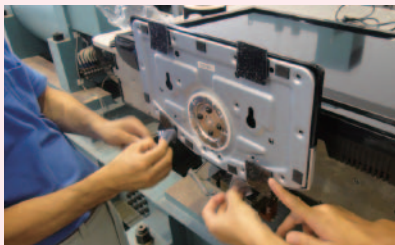
■ With an adhesion to fix on the one side of Gel tack.

Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
GT-1T	1.0	Asker C 25	500×400	transparency	¥ 6,450



Reproduction test for seismic wave in magnitude 9 of great east Japan earthquake

Not tipping over!



Install to stumble prevention sheet to 32-inch LCD TV.



Install to vibration tester.



Carry out reproduction test of seismic wave in magnitude 9.



# Clear tack sheet series

Adhesive sheet that it is possible to paste and peel off repeatedly.



MSDS Food hygiene No plasticizer

- Glue is not remained, because of self-adhesive of urethane.
- It is possible to clean by washing and use repeatedly, if "gel surface" is dirty.
- It has a body with substrate, and is easy to deal with even if thin.

## Use

- Temporary fixed

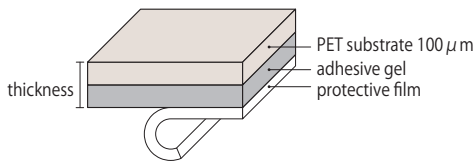
## Example

- Display, POP, Simple fixed of accessory
- Instead of posted tape, thumbtack, or magnet
- To fix smartphone and cover



## Clear tack one side

### Number / Size / Price

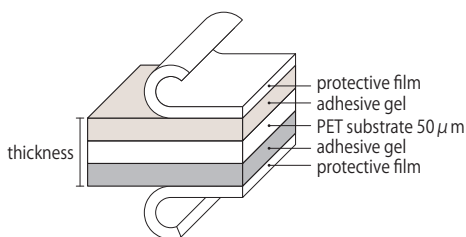


- There is an adhesive gel that is able to be pated and peeled off in one side.

Number	Thickness(mm)	Hardness	Size(mm)	Price(not in tax)
CT-03-500	0.3	Ascker C 14	500×500	¥ 1,700
CT-05-500	0.5			¥ 1,800
CT-10-500	1.0			¥ 2,400

## Clear tack both sides

### Number / Size / Price

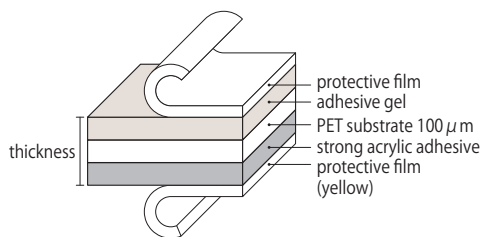


- There is an adhesive gel that is able to be pated and peeled off in both sides.

Number	Thickness(mm)	Hardness	Size(mm)	Price(not in tax)
CT-05W-500	0.5	Ascker C 14	500×500	¥ 2,900
CT-10W-500	1.0			¥ 3,600

## Clear tack different adhesive

### Number / Size / Price



- There is an acrylic adhesive to fix in one side and an adhesion that is able to be pated and peeled off in the other side.

Number	Thickness(mm)	Hardness	Size(mm)	Price(not in tax)
CT-03WT-500	0.3	Ascker C 14	500×500	¥ 1,950
CT-05WT-500	0.5			¥ 1,980
CT-10WT-500	1.0			¥ 2,580

## Instructions on using and Precautions

- Clean the attachment surface.
- It is possible to cut to the size of your choice, such as scissors and paste after peeling off protective film in both sides.
  - ※Please use only for temporary fixed, because it is easy to peel off because of the characteristic that is able to paste and peel off on the surface of wall or vertical. And not durable for simple applications.

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and impact absorption / Screen protection supplies

Resin for molding

# Pit cushion sheet series

## High transparency sheet for cleat



※Photo is image

RoHS   MSDS   Food hygiene   No plasticizer

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

Resin for molding



- The sheet is made from polyurethane, and has excellent elasticity and transparency.\*
- It does not change color by ultraviolet.
- There is a high effect for cleat.

※It doesn't be changed yellowing by ultraviolet though, it might be changed by heat. The thing with adhesion has a case that the part of glue will be changed.

### Use

- For cleat, washer, display material, packing

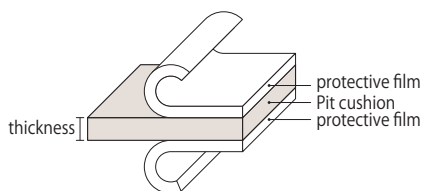
### Example

- Cleat for table board
- Prevent for falling and sideslip
- Cleat for cupboard



## Pit cushion sheet

Number / Size / Price



- The sheet is for punching.

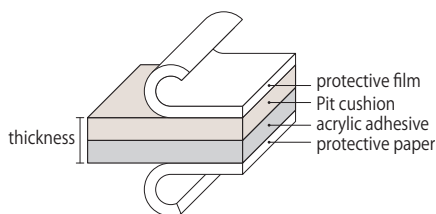
Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
P05	0.5	Ascker C 80	500×500	Transparency	¥ 3,900
P10	1.0				¥ 5,300
P20	2.0				¥ 8,800

※We hear cut or punch processing of sheet you want. Please contact us.

※We prepare the roll type for 0.5~1.0mm. Please contact us.

## Pit cushion sheet with adhesive

Number / Size / Price



- Pit cushion sheet with adhesive to fix in one side.

Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
PT05	0.5	Ascker C 80	500×500	Transparency	¥ 4,450
PT10	1.0				¥ 6,200
PT20	2.0				¥ 9,300

※We hear cut or punch processing of sheet you want. Please contact us.

※We prepare the roll type for 0.5~1.0mm. Please contact us.

### Instructions on using and Precautions

- It is possible to cut to the size of your choice, such as scissors.  
※It is difficult to cut more 1mm thick sheet.
- Clean the attachment surface.
- Please paste after peeling off protective film in both sides.

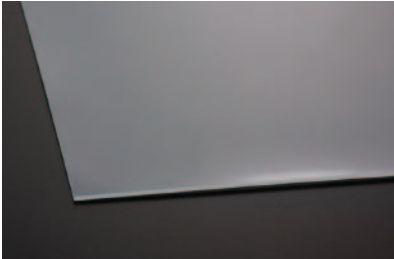
# Soft cushion sheet series

Transparency sheet for cleat is softer than Pit cushion sheet.



※Photo is image

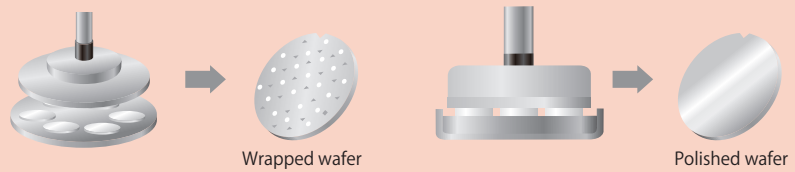
RoHS    MSDS    No plasticizer



- It is used polyurethane that is good elasticity and shock absorption and not turning yellow.\*
  - It has high durability and vibrating prevention.
- ※It doesn't be changed yellowing by ultraviolet though, it might be changed by heat. The thing with adhesion has a case that the part of glue will be changed.

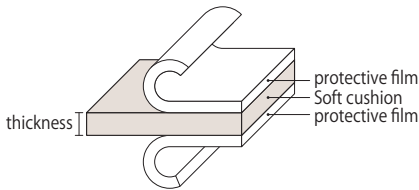
### Use / Example

- Fixed abrasive like wrapping.



## Soft cushion sheet

### Number / Size / Price



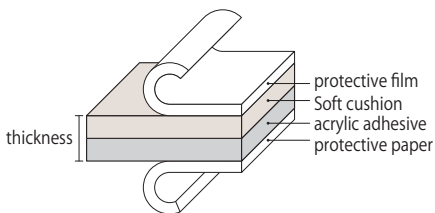
- The sheet is for punching.

Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
PS05	0.5	Ascker C 67	500×500	Transparency	¥ 4,700
PS10	1.0				¥ 6,700
PS20	2.0				¥ 13,180

※We hear cut or punch processing of sheet you want. Please contact us.

## Soft cushion sheet with adhesive

### Number / Size / Price



- Soft cushion sheet with adhesive to fix in one side.

Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
PS05T	0.5	Ascker C 67	500×500	Transparency	¥ 5,180
PS10T	1.0				¥ 7,680
PS20T	2.0				¥ 14,680

※We hear cut or punch processing of sheet you want. Please contact us.

Clean supplies

Fixation / Non skid supplies

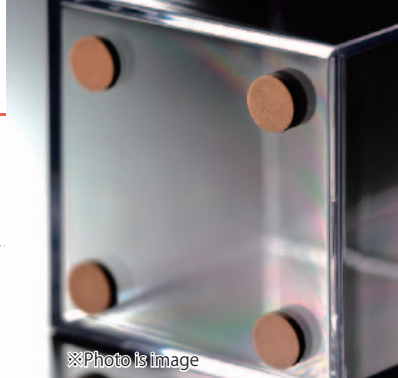
Removed dust supplies

Vibrational and impact absorption / Screen protection supplies

Resin for molding

# Pit cushion series

Cushion material for buffer when the door hits, and for preventing damage.



※Photo is image

RoHS    MSDS    No plasticizer (Only clear type)

- It does not turning yellow by ultraviolet.
- There are high durability and anti-vibration power.
- This is seal type to paste easily.

### Use / Example

- Cushion for door-hits, and prevention for damage
- For temporary fixed of stationery and general goods

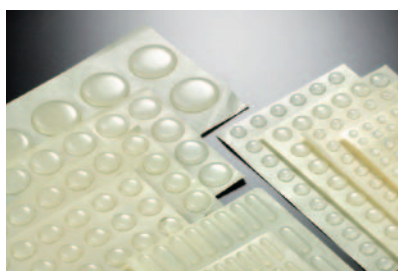


### Specifications / Characteristic

Cushion material	Non-yellowing polyurethane
Hardness	Asker C 80
Adhesive	Acrylic adhesive
Adhesive power	2.1kg/25mm

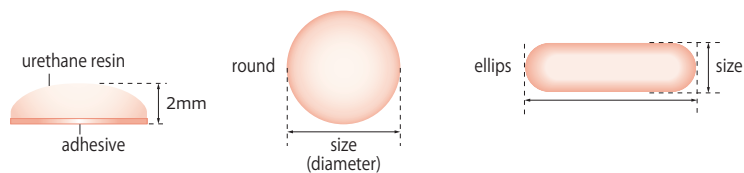
## Pit cushion (clear type)

### Number / Size / Price



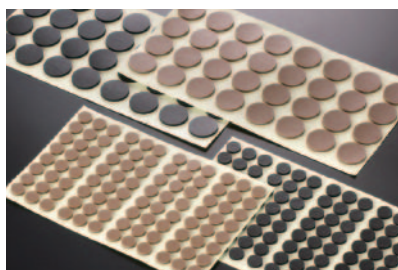
Number	Diameter(mm)	Hardness	Thickness(mm)	Color	Number per sheet	Price(not in tax)
PC-6	6	Asker C 80	2.0	clear	90	¥ 720
PC-8	8				70	¥ 560
PC-10	10				60	¥ 540
PC-12	12				60	¥ 720
PC-14	14				50	¥ 700
PC-16	16				50	¥ 800
PC-20	20				24	¥ 435
PC-30	30				8	¥ 240
PC-20T	20×5 (ellips)				55	¥ 500
PC-25T	25×8 (ellips)				40	¥ 680

※We can also prepare the value pack in a case unit, pleasecontact.

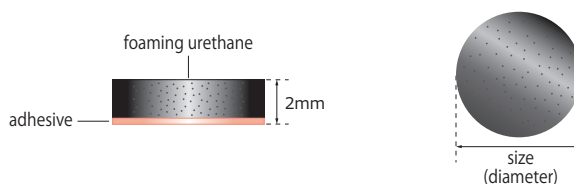


## Pit cushion (foam type)

### Number / Size / Price



Number	Diameter(mm)	Thickness(mm)	Color	Number per sheet	Price(not in tax)
PF-10	10	2.0	black	96	¥ 580
PF-20	20			32	¥ 360
PB-10	10		brown	96	¥ 580
PB-20	20			32	¥ 360



### Instructions on using and Precautions

- Please set to peel off one by one from the mount after removing the dirt of the pasted surface.

# Soft cushion series

Cushion material for buffer when the door hits, and for preventing damage is softer than Pit cushion.

※Photo is Image

RoHS    MSDS    No plasticizer

- It does not turning yellow by ultraviolet.
- There are high durability and anti-vibration power.
- This is seal type to paste easily.

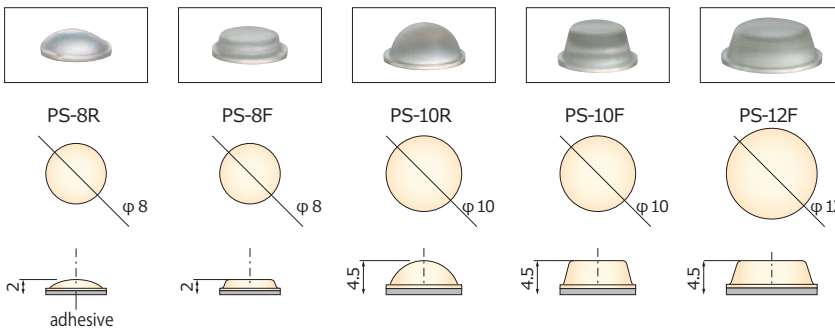
### Use / Example

- Cushion for door-hits, and prevention for damage
- Cushion of toilet cover
- For temporary fixed of stationery and general goods



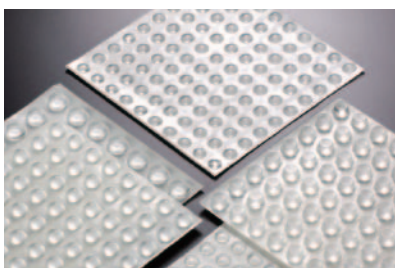
### Specifications / Characteristic

Cushion material	Non-yellowing polyurethane
Hardness	Asker C 67
Adhesive	Acrylic adhesive
Adhesive power	2.1kg/25mm



## Soft cushion

### Number / Size / Price



Number	Diameter (mm)	Hardness	Thickness (mm)	Color	Number per sheet	Price (not in tax)
PS-8R	8	Asker C 67	2.0	clear	100	¥ 1,200
PS-8F	8		2.0		100	¥ 1,200
PS-10R	10		4.5		64	¥ 1,220
PS-10F	10		4.5		64	¥ 1,220
PS-12F	12		4.5		49	¥ 1,200

※We can also prepare the value pack in a case unit, please contact.



### Point!

- It is used urethane that has shock absorption and is softer than Pit cushion. (Asker C 67)
- Palliate the sound of closing the door.
- It has also an effect of stopping the sound of toilet lid, so be used to product by leading manufacturer.
- It is possible to relieve scratches and dents by using soft cushion material.

### Instructions on using and Precautions

- Please set to peel off one by one from the mount after removing the dirt of the pasted surface.





# Gel Cleaner pen series

## Pencil catch dusts on the base of print and device.

RoHS   MSDS   Food hygiene

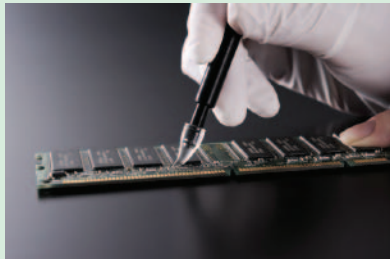
- The tool remove waste and dust by adhesive of special urethane gel.
- Glues are not remained on the base of print and device because of making use of self-adhesive.
- It does not damage to tip and device for soft materials.
- It is possible to use repeatedly by washing even if stained.
- Nib keep clean until you get because it is packed in cleanroom.

### Use

- Remove dusts in part of uneven, base of print, and device.
- Picking of small parts.

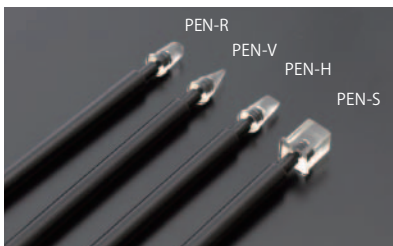
### Example

- It is possible to use to semiconductor, LED, precision, optical, and electronic instrument.



## Gel Cleaners pencil type

Number / Size / Price



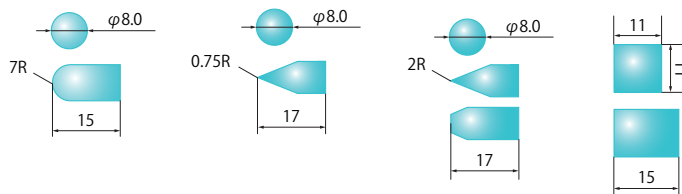
- Catch wastes and dusts with pinpoint.

Number	Shape	Price(not in tax)
<b>PEN-R</b>	Round	¥ 1,300
<b>PEN-V</b>	Pen-shaped	¥ 1,300
<b>PEN-H</b>	Paddle-shaped	¥ 1,300
<b>PEN-S</b>	Square	¥ 1,300

※We can change adhesive strength. (estimate needed) Please contact.

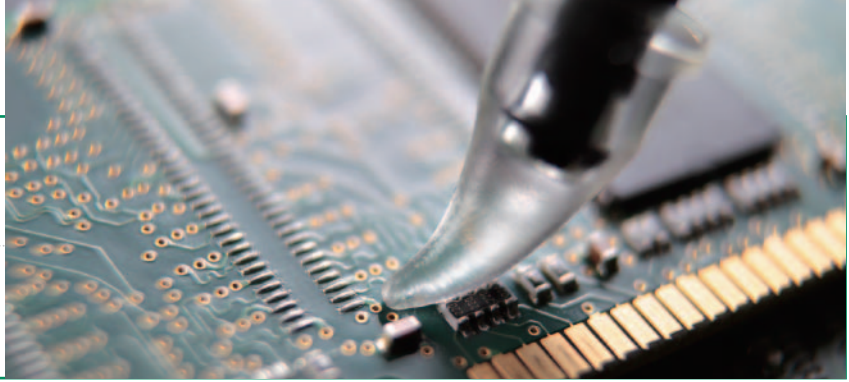
- You decide the shapes of pen according to the use.

PEN-R (Round) Standard model for easy to use	PEN-V (Pen-shaped) For tiny spaces	PEN-H (Paddle-shaped) For ditch and tiny spaces	PEN-S (Square) For flat surfaces
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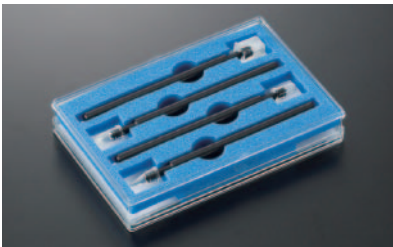
## Instructions on using and Precautions

- Patting parts of the dusts you worried and catch the alien substance.
- The alien substance you caught copy to cleaner base(Optional), or wash out by water.  
※Please patting nib, not dragging. If you drag, nib may shave and appear wastes.



## Gel Cleaner Pencils set

Number / Size / Price



- Including "Gel cleaner pen : 4pieces(Round/Pen-shaped/Paddle-shaped/Square)", "transferred sheet" and "case".
- There is widely available to suit your use.
- They are in an original box to keep conveniently.

Number	Price(not in tax)
PENSET	¥ 6,000



### Point!

- Push the handle end to keep the urethane side clean.



## Nib spares of Gel Cleaner pencils

Number / Size / Price



- It is available from one piece (top part only).

Number	Shape	Price(not in tax)
PEN-RS	Round	¥ 400
PEN-VS	Pen-shaped	¥ 400
PEN-HS	Paddle-shaped	¥ 400
PEN-SS	Square	¥ 400

## Cleaner base

Number / Size / Price



- Adhesive sheets transfer the dirt of nib by stronger adhesion in the original box.
- Cleaner Base is washable to use repeatedly.

Number	Size (Case/mm)	Price(not in tax)
PEN-CB	50×50	¥ 500



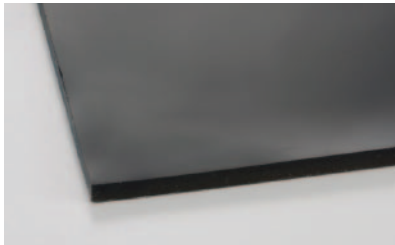


# Semiconductive gel sheet series

## Transcription and removal dust sheet of a glove or roller

RoHS    MSDS    No plasticizer    Antistatic

Clean supplies



- It is the urethane gel with semiconductive.
- Static electricity is prevented (Surface resistivity :  $10^8 \Omega/\square$ ).
- It is possible to remove the dust of glove or parts by self-adhesion of urethane gel.
- It is possible to use repeatedly by washing dust away.

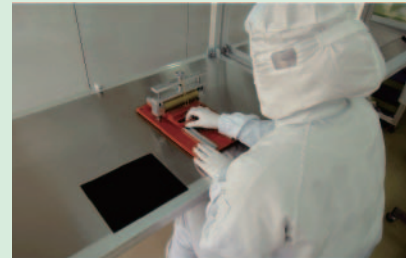
Fixation / Non skid supplies

### Use

- Remove a dust by adhesion.
- For preventing of static electricity.
- Nonskid at where hate the static electricity

### Example

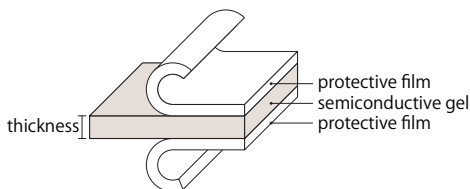
- The dust of a glove/roller/fingertip or stall is taken.
- Remove a dust in an air shower.



The thing which you want to remove dust, such as glove and roller, is lightly pressed against a sheet.

Removed dust supplies

## Specification / Property



Hardness	Material	Surface resistivity	Adhesiveness
Asker C 15	Semiconductive Polyurethane	$1.7 \times 10^8 \Omega/\square$	Light adhesion
Asker C 30		$4.4 \times 10^8 \Omega/\square$	Faint adhesion
Asker C 50		$5.8 \times 10^8 \Omega/\square$	Almost nothing adhesion

Vibrational and Impact absorption / Screen protection supplies

Resin for molding



## Semiconductive gel sheet Number / Size / Price

■ This is special urethane gel with conductivity.

Number / Hardness			Thickness(mm)	Size(mm)	Color	Price(not in tax)
Asker C 15	Asker C 30	Asker C 50				
<b>E1510</b>	<b>E3010</b>	<b>E5010</b>	1.0	500×500	black	¥ 9,400
<b>E1520</b>	<b>E3020</b>	<b>E5020</b>	2.0			¥ 15,400
<b>E1530</b>	<b>E3030 *</b>	<b>E5030</b>	3.0			¥ 22,400

Mark of “\*” is normal stock. The others are produced an order item.  
We also hear cut punching of sheet. Please contact us.

## Semiconductive gel sheet (cutting type) Number / Size / Price

■ This sheet is cut to Tabletop size, and is easy to use.

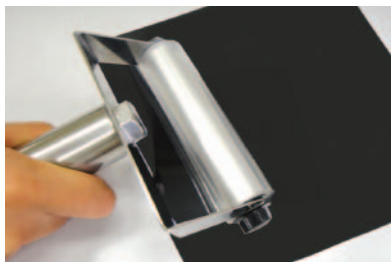
Number / Hardness			Thickness(mm)	Size(mm)	Color	Price(not in tax)
Asker C 15	Asker C 30	Asker C 50				
<b>E1530-1010</b>	<b>E3030-1010 *</b>	<b>E5030-1010</b>	3	100×100	black	¥ 900
<b>E1530-2010</b>	<b>E3030-2010 *</b>	<b>E5030-2010</b>		200×100		¥ 1,800
<b>E1530-2525</b>	<b>E3030-2525 *</b>	<b>E5030-2525</b>		250×250		¥ 5,600
<b>E1530-2550</b>	<b>E3030-2550 *</b>	<b>E5030-2550</b>		500×250		¥ 11,200

Mark of “\*” is normal stock. The others are produced an order item.

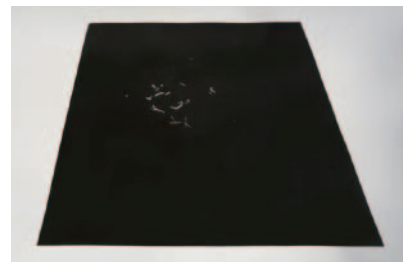
### Instructions on using and Precautions



Take the dust with a roller.



Transferred to semiconductive gel sheet after the roller get to be dirty.



The dust move to semiconductive gel sheet.

# Semiconductive gel roller series

Semiconductive roller is suitable to remove the dust on the flat.



- RoHS
- MSDS
- No plasticizer
- Antistatic
- Non silicone

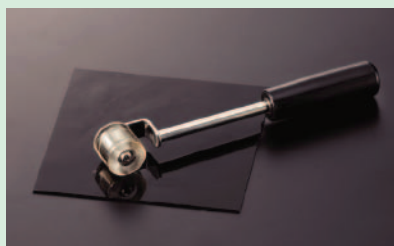
- Static electricity is prevented (Surface resistivity :  $10^8 \Omega/\square$ ).
- Glue is not remained, because of self-adhesive of urethane.
- It is possible to use repeatedly by washing and drying.
- The part of roller is made from conductivity urethane, and grip is made of metal so it ensures the conductive.
- You can use it with confidence because of the low elution (Residual ion concentration, Allowable value of detection limit: Positive ion is 0.05ppm/Negative ion is under 0.01ppm)
- Silicone is not included in manufacturing process and material.

## Use

- Remove a dust

## Example

- It is possible to use to semiconductor, LED, precision, optical, and electronic instrument.



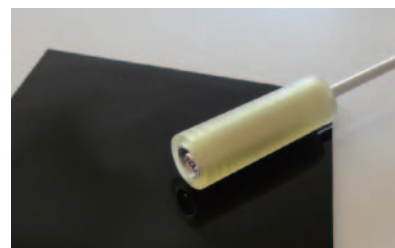
## Semiconductive gel roller Number / Size / Price



Number	Roller width (mm)	Roller diameter (mm)	Adhesion (N/cm2)	External dimensions (full length*width*height)	Price (not in tax)
EX215-AS	17.5	Φ 20	About 7	160×20×20	¥ 24,000
EX230-AS	30	Φ 20		154×36×38	¥ 26,000
EX355-AS	55.5	Φ 30		169×65×52	¥ 29,000
EX311C-AS	111	Φ 30		150×132×63	¥ 43,000
EX316C-AS	160	Φ 30		150×182×63	¥ 53,000
EX325C-AS	250	Φ 30		150×272×63	¥ 61,000
EX430C-AS	300	Φ 40		155×322×68	¥ 99,000

## Instructions on using and Precautions

- Catch the dust.
- Then please transfer the dust that is caught by roller to Semiconductive gel sheet (P17), or wash away with water.



Transfer the dust to Semiconductive gel sheet.

# Polish gel

Clean a solder by using sheet contained an abrasant.

RoHS MSDS

- Clean a solder by using gel contained an abrasant.
- It is soft gel, so it is easy to insert a pin deeply.

## Use/Example

- Remove the foreign matter of probe tip



Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

Resin for molding

## Polish gel

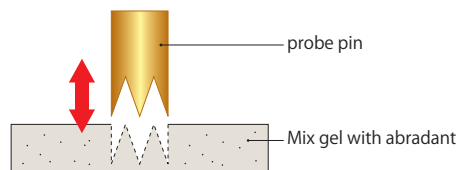
Number / Size / Price



Number	Thickness(mm)	Hardness	Size(mm)	Price(not in tax)
PLG-1	1.0	40	200×200	¥ 7,000
PLG-2	2.0			¥ 8,000
PLG-3	3.0			¥ 9,000
PLG-5	5.0			¥ 11,000

## Instructions on using and Precautions

- The dirty probe pin sometimes insert gel.



# Hyper gel sheet series

## Vibration and shock absorbing sheets.

RoHS    MSDS    Food hygiene

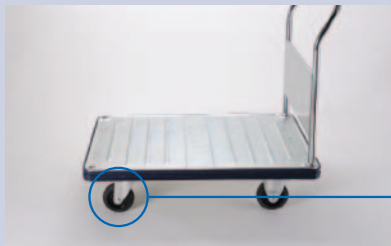
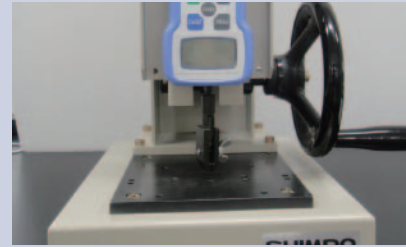
- It is made of a super-soft elastomer, and there is high absorption of energy.
- It absorbs 90% or more of shock with a durable and strong material.
- It keeps high antivibration if the frequency and temperature change.
- This material is softer than general one.

### Use

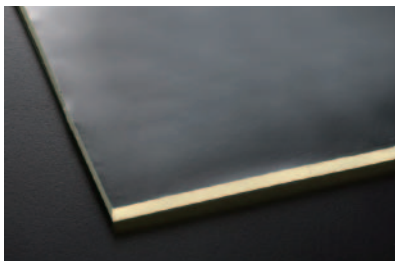
- For shock absorbing and buffer such as damper.
- As packing materials is needed confidentiality.

### Example

- Antivibration of measuring instrument, equipment, truck and so on.
- Temporary fixed of electronic and optical components with using self-adhesive.



## Specifications / Characteristic



Name	Hardness		Characteristic of gel
Hyper gel 30	Asker C 30	Softer	Low adhesion
Hyper gel 50	Asker C 50	↕	Slight adhesion
Hyper gel 70	Asker C 66	Harder	Almost no adhesion

Clean supplies

Fixation / Non skid supplies

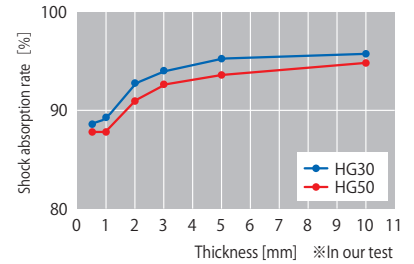
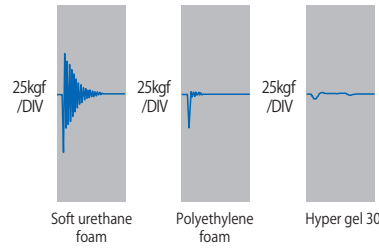
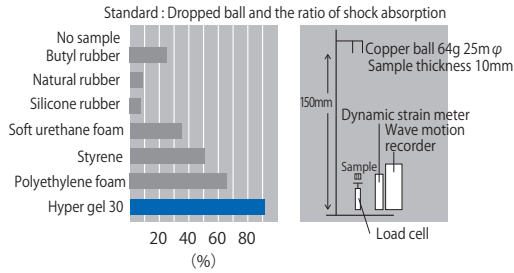
Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

Resin for molding

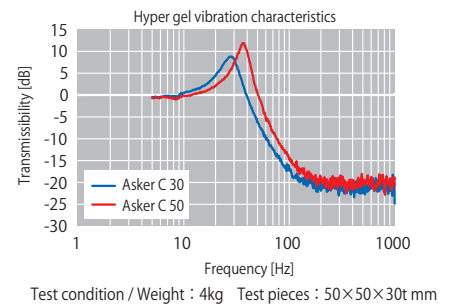
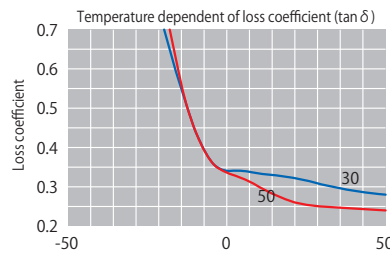
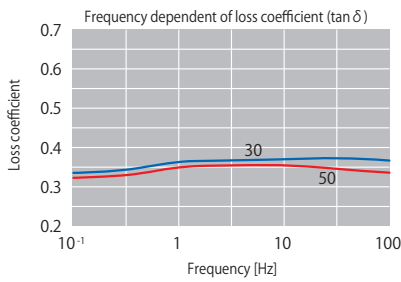


## Shock absorption



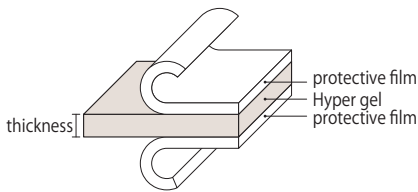
Test pieces / □20 (Each hardness/thickness)  
Dropped ball : 5.5g steel ball  
Dropped height : 100mm

## Vibration absorption



## Hyper gel sheet

Number / Size / Price



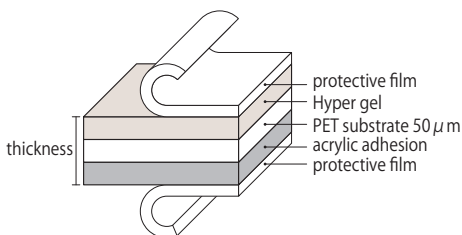
Simple sheet of gel have antivibration and shock absorbing.

Number			Thickness (mm)	Size (mm)	Color	Price (not in tax)
Hyper gel 30	Hyper gel 50	Hyper gel 70				
3010	5010	7010	1.0	500×500	Transparent	¥ 5,100
3020	5020	7020	2.0			¥ 7,800
3030	5030	7030	3.0			¥ 10,800
3050	5050	7050	5.0			¥ 15,800

※We also hear cut punching of sheet. Please contact us.

## Hyper gel sheet with adhesive

Number / Size / Price



With an adhesion to fix on the one side of Hyper gel sheet.

Number			Thickness (mm)	Size (mm)	Color	Price (not in tax)
Hyper gel 30	Hyper gel 50	Hyper gel 70				
3005T	5005T	7005T	0.5	500×400	Transparent	¥ 3,360
3010T	5010T	7010T	1.0			¥ 4,520
3020T	5020T	7020T	2.0			¥ 6,600
3030T	5030T	7030T	3.0			¥ 9,000
3050T	5050T	7050T	5.0			¥ 13,000

※We also hear cut punching of sheet. Please contact us.



# Gel damper series

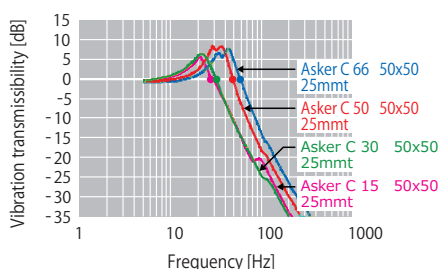
## Antivibration and vibration removal block for measuring instrument and precision equipment.

RoHS    MSDS    Food hygiene

- It is improved vibration absorption by molding Hyper gel (P.32) thicker.
- It is possible to prevent vibrations by spreading under the precision equipment.
- Prevent vibrations of machine.
- Remove vibrations from floor.
- Attenuation possible frequency is able to get a effect from 23Hz. (It depends on material hardness.)
- Hyper gel does not have directivity, so it is possible to get equal effects in a vertical direction and horizontal one.

### Specifications / Characteristic

#### ■ Attenuation of vibration



It is vibrated and changed a frequency gradually while applying a load to the gel, then examined the frequency range that is able to get an effect of antivibration.

- ※ Antivibration frequency is the number of max load in proper one.
- ※ It shows an effect of antivibration and vibration removal by using within proper load range.

#### ■ How to look at a graph

It shows the point to be minus than 0dB prevented more than added vibration. So it shows an effect of antivibration to frequency range above the point where it reaches 0dB.

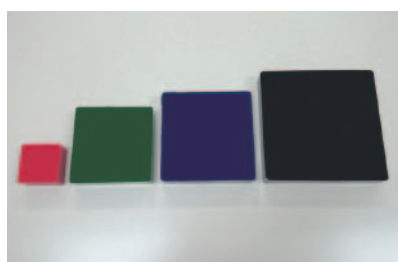


### Vibration test

- Antivibration test is carried out. A frequency is changed from 5Hz to 500Hz by large vibration tester.



## Gel damper Number / Size / Price



- It is a block that improved vibration absorption by molding Hyper gel thicker.

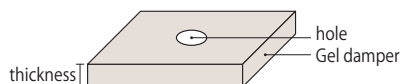
Number	Hardness	Color	Size (mm)	Proper using load (kg / per sheet)	Antivibration frequency(Hz)	Price (not in tax)
GD15-50	Asker C 15	black	50×50 ×25t	Under 2~10kg	24.4~	¥ 1,200
GD30-50	Asker C 30	blue		Under 10~20kg	24.4~	¥ 1,200
GD50-50	Asker C 50	green		Under 20~30kg	24.2~	¥ 1,200
GD70-50	Asker C 66	red		Under 30~50kg	23.8~	¥ 1,200
GD15-100	Asker C 15	black	100×100 ×25t	Under 10~50kg	24.4~	¥ 3,500
GD30-100	Asker C 30	blue		Under 50~80kg	24.4~	¥ 3,500
GD50-100	Asker C 50	green		Under 80~120kg	24.2~	¥ 3,500
GD70-100	Asker C 66	red		Under 120~200kg	23.8~	¥ 3,500
GD15-120	Asker C 15	black	120×120 ×25t	Under 15~70kg	24.4~	¥ 3,800
GD30-120	Asker C 30	blue		Under 70~110kg	24.4~	¥ 3,800
GD50-120	Asker C 50	green		Under 110~170kg	24.2~	¥ 3,800
GD70-120	Asker C 66	red		Under 170~280kg	23.8~	¥ 3,800
GD15-150	Asker C 15	black	150×150 ×25t	Under 20~110kg	24.4~	¥ 4,500
GD30-150	Asker C 30	blue		Under 110~180kg	24.4~	¥ 4,500
GD50-150	Asker C 50	green		Under 180~270kg	24.2~	¥ 4,500
GD70-150	Asker C 66	red		Under 270~450kg	23.8~	¥ 4,500

- ※ Antivibration frequency is the number of max load in proper one.
- ※ It is possible to distinguish a hardness of gel by the color.

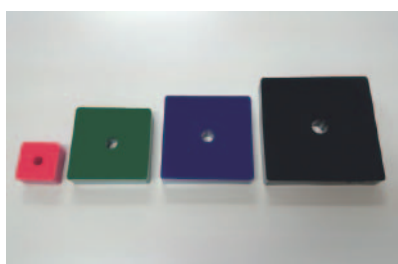




## Gel damper (Type A) Number / Size / Price



- ※The size of hole depends on damper size.
- ※There are protective films in both sides.



- There is a hole to fix in the center of Gel damper.
- It is stabilized a machine and absorbed vibration by fixing this hole with a bolt.

Number	Hardness	Color	Size (mm)	Proper using load (kg / per sheet)	Antivibration frequency(Hz)	Price (not in tax)
<b>GD15-50A</b>	Asker C 15	black	50×50×25t φ 13	Under 2~10kg	24.4~	¥ 1,800
<b>GD30-50A</b>	Asker C 30	blue		Under 10~20kg	24.4~	¥ 1,800
<b>GD50-50A</b>	Asker C 50	green		Under 20~30kg	24.2~	¥ 1,800
<b>GD70-50A</b>	Asker C 66	red		Under 30~50kg	23.8~	¥ 1,800
<b>GD15-100A</b>	Asker C 15	black	100×100×25t φ 16	Under 10~50kg	24.4~	¥ 4,200
<b>GD30-100A</b>	Asker C 30	blue		Under 50~80kg	24.4~	¥ 4,200
<b>GD50-100A</b>	Asker C 50	green		Under 80~120kg	24.2~	¥ 4,200
<b>GD70-100A</b>	Asker C 66	red		Under 120~200kg	23.8~	¥ 4,200
<b>GD15-120A</b>	Asker C 15	black	120×120×25t φ 16	Under 15~70kg	24.4~	¥ 5,600
<b>GD30-120A</b>	Asker C 30	blue		Under 70~110kg	24.4~	¥ 5,600
<b>GD50-120A</b>	Asker C 50	green		Under 110~170kg	24.2~	¥ 5,600
<b>GD70-120A</b>	Asker C 66	red		Under 170~280kg	23.8~	¥ 5,600
<b>GD15-150A</b>	Asker C 15	black	150×150×25t φ 20	Under 20~110kg	24.4~	¥ 7,100
<b>GD30-150A</b>	Asker C 30	blue		Under 110~180kg	24.4~	¥ 7,100
<b>GD50-150A</b>	Asker C 50	green		Under 180~270kg	24.2~	¥ 7,100
<b>GD70-150A</b>	Asker C 66	red		Under 270~450kg	23.8~	¥ 7,100

- ※Antivibration frequency is the number of max load in proper one.
- ※It is possible to distinguish a hardness of gel by the color.

Clean supplies

Removed dust supplies

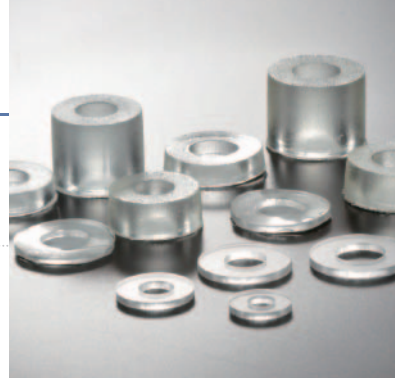
Fixation / Non skid supplies

Vibrational and impact absorption / Screen protection supplies

Resin for molding

# Urethane washer series

Soft, transparency, and antivibration washer.



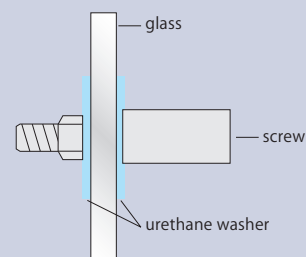
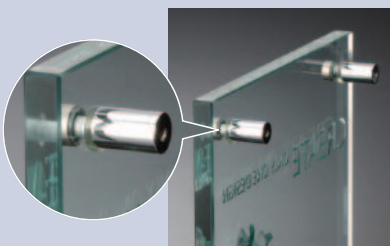
RoHS    MSDS    Food hygiene

Clean supplies

- It is soft and elasticity.
- It does not disturb a landscape because of transparency.
- It prevents flaws and broking when you tighten fragile things like a glass or acrylic.
- It hardly conducts vibration and sound, so it is effective for locking screw.

## Example

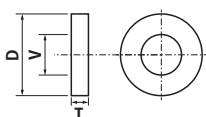
- For installed hard-disc, fan motor, and so on.
- For buffered screw like a glass, acrylic, and so on.



Fixation / Non skid supplies

Removed dust supplies

## How to look the size



## Order example

Number	Hardness	T
NO.3	30	1

Vibrational and Impact absorption / Screen protection supplies

## Urethane washer (standard type)    Number / Size / Price

### ■ Punched Pit cushion sheet.

Number	Hardness		Size (mm)			Quantity per 1 bag (piece)	Price (not in tax)
	Asker C 80		T	D	V		
NO.3	80		1	8.0	3.5	20	¥ 400
NO.4	80		1	10.0	4.5	20	¥ 480
NO.5	80		1	12.0	5.5	20	¥ 600
NO.6	80		1	13.0	6.5	20	¥ 800

## Urethane washer (soft type)    Number / Size / Price

### ■ Molded Hyper gel.

Number	Hardness		Size (mm)			Price (not in tax)
	Asker C 30	Asker C 50	T	D	V	
NO.3	30	50	1	8	3.5	¥ 60
NO.4	30	50	1	10	4.5	¥ 75
NO.5	30	50	1	12	5.5	¥ 94
	30	50	3			¥ 110
	30	50	5			¥ 130
	30	50	10			¥ 180
NO.6	30	50	1	13	6.5	¥ 120
	30	50	3			¥ 140
	30	50	5			¥ 160
	30	50	10			¥ 210

Resin for molding

# Cushion pat

## Antivibration and cleat pat.



※Photo is image

RoHS    MSDS    Food hygiene

- This is an antivibration material made by Hyper gel (P.32) with an antivibration effect.
- It has an effect only you spread under the equipment.
- We have two shapes and hardness. And it is possible to use to match the load.
- It has an effect of cleat.

### Use

- For cleat.
- Antivibration of equipment.

### Example

- Cleat of handle and handrail.
- Antivibration by spreaded under the equipment.



Clean supplies

Fixation / Non skid supplies

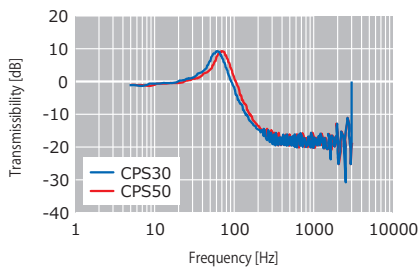
Removed dust supplies

Vibrational and impact absorption / Screen protection supplies

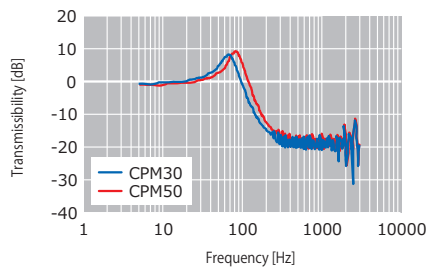
Resin for molding

## Specifications / Characteristic

- Vibration characteristic of Cushion pat S
- Vibration characteristic of Cushion pat M



Test condition / Weight : 1.6kg  
Test pieces : Cushion pat S each hardness

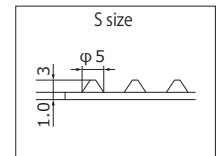
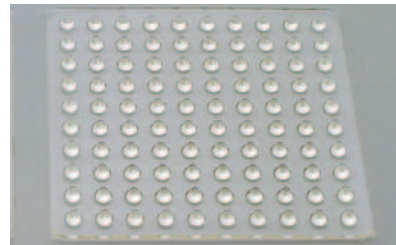
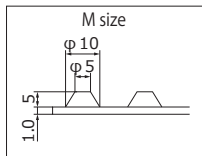


Test condition / Weight : 1.6kg  
Test pieces : Cushion pat M each hardness

## Cushion pat

### Number / Size / Price

- This is a molding pat from Hyper gel (P.32).



Number	Thickness (mm)	Hardness	Proper load "W"(kg) per 1 sheet ※1	The number of fulcrum "n"(piece)	Size (mm)	Color	Price (not in tax)
30S	4	Asker C 30	6.2	100	95×95	Transparency	¥ 1,000
50S		Asker C 50	15.2	100			¥ 1,000
30M	6	Asker C 30	6.1	36	95×95	Transparency	¥ 1,000
50M		Asker C 50	15.1	36			¥ 1,000

※ This measured value is a reference value, it is not a guaranteed value.  
 ※ It changes the specifications without notice to improve the quality of the products.  
 ※ 1 Proper load has become 15% strain of the material properties.



# Puyo-TECT™

## Shock absorption gel to prevent corruption of a liquid crystal



MSDS

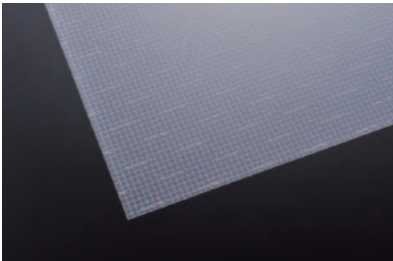
Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

Resin for molding



- There is a shock absorption performance more than traditional double.
- The soft gel sheet of 0.6mm thick is not only protect the screen, and also protects the nail to push it.
- All construction materials are used a high permeability material, so visible light transmittance is also high performance.
- There are excellent impact resistance to withstand the iron ball of 250g, which dropped from a height of 1.5m.



### The drop test in the video!

- You can see the drop test in the video from the right QR code. Please see a surprising performance.

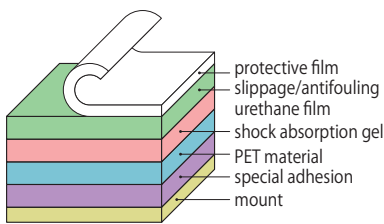


### Use

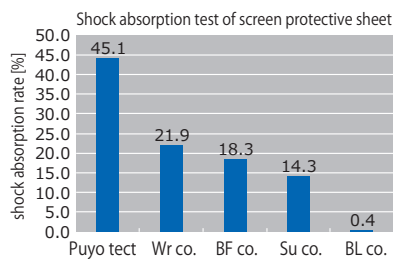
- Screen protection of smartphone and tablet.
- Protective and antifouling sheet of touch panel for industrial machinery.
- Screen protection of touch panel of the gas station.

## Specifications / Characteristic

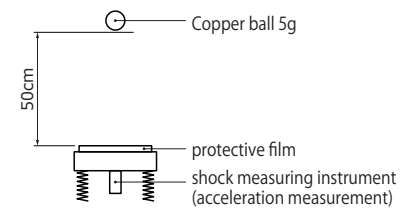
### Structure



### Shock absorption graph



### How to test



### Physical properties

Shock absorption	Visible light transmittance	Hardness of gel part	Coefficient of static friction	Coefficient of dynamic friction
45.1%	92.1%	Asker C 0	0.49	0.38

## PUYO-TECT™

Number / Size / Price

Number	Thickness (mm)	Size (mm)	Price (not in tax)
<b>PUYO-TECT</b>	0.6	400×500	¥ 10,000

# Hitohada™ gel sheet series

Super soft sheet like a human skin.



RoHS

MSDS



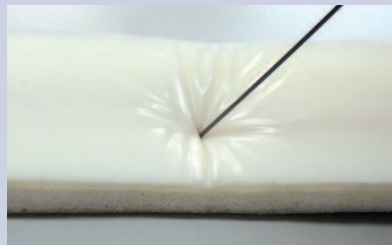
- It is soft and has excellent tracking.
- There is a self-adhesive to material itself.
- A glue does not transfer.

## Use

- Masking, temporarily fixed, packing, cushioning.

## Example

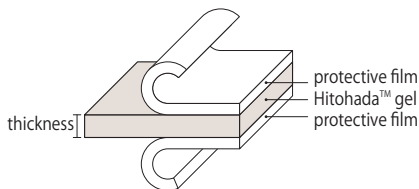
- Masking, packing
- Protection of machine
- Buffer sheet



It is used for practice of injection as dummy sheet.  
(No adhesion on one side)



## Hitohada™ gel sheet Number / Size / Price

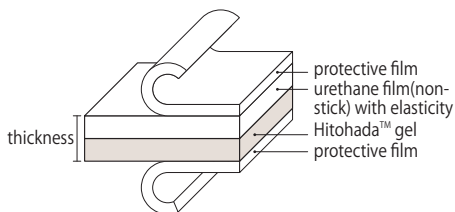


- Super soft urethane sheet with adhesive.

Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
H0-1※	1.0	Asker C 0	500×500	Milky white	¥ 5,000
H0-2※	2.0				¥ 8,000
H0-3※	3.0				¥ 10,500
H0-5	5.0				¥ 14,400
H0-10	10.0	Asker C 5	400×400		¥ 22,400
H5-5	5.0				¥ 12,200
H5-10	10.0				¥ 20,700

In the mark of "※", it is possible to prepare the goods of Asker C 5 and 15.(Build-to-order) Please contact.  
※We also hear cut punching of sheet. Please contact us.

## Hitohada™ gel sheet without adhesion in one side Number / Size / Price



- The sheet with film to prevent adhesive on one side.

Number	Thickness(mm)	Hardness	Size(mm)	Color	Price(not in tax)
H0-1K	1.0	Asker C 0	500×400	Milky white	¥ 5,200
H0-2K	2.0				¥ 7,600
H0-3K	3.0				¥ 9,600

※We also hear cut punching of sheet. Please contact us.

## Instructions on using and Precautions

- Clean the attachment surface.
- Paste the protective film on the one side after peeling off, and then install on the other side.



# Undiluted solution of Hitohada™ gel series

Resin for molding is as soft as a human skin.



RoHS MSDS

Clean supplies

- It is super soft urethane resin that express the softness like a human skin.
- There is enough strength even at low hardness.
- Three types of hardness : Asker C 0(soft), Asker C 5(standard), Asker C 15(hard). So you can use widely according to an use.
- It is suitable for a molding material as an anatomical model, doll, protection putt, and so on.

Fixation / Non skid supplies



100g set (Main agent 75g/Curing agent 25g)



600g set (Main agent 450g/Curing agent 150g)



1200g set (Main agent 900g/Curing agent 300g)

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

Resin for molding

## Undiluted solution of Hitohada™ gel Number / Size / Price

- This is a super soft resin like a human skin for molding.
- The set is composed of the main agent, curing agent, and talcum powder to reduce an adhesion on surface.

Number	Color	Hardness	Contents(g)	Price(not in tax)
H0-100	Milky white	Asker C 0 (Soft)	100	¥ 1,100
0-600			600	¥ 4,800
0-1200			1200	¥ 9,000
H5-100		Asker C 5 (Standard)	100	¥ 1,100
5-600			600	¥ 4,800
5-1200			1200	¥ 9,000
H15-100		Asker C 15 (Hard)	100	¥ 1,100
15-600			600	¥ 4,800
15-1200			1200	¥ 9,000

※We can prepare the set of 20kg, please contact us.

### Specifications / Characteristic

Hardness	Softness	Indication of softness
Asker C 0	Soft	About baby skin or belly
Asker C 5	Standard	About face or arm
Asker C 15	Hard	About foot sole or back

※It is not a measured value.

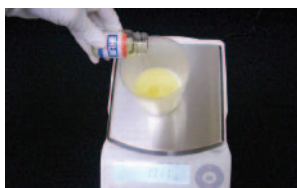


This soft material was nearly impossible until now at the user level!

Hitohada™ gel is super soft urethane resin that is as soft and smooth as human skin. It is possible to enjoy the hand feelings like a marshmallow, and sense of timeless. We prepare three softness in response to customer requests. Please expand the possibilities of the "Hitohada™ gel" in a variety of applications.

### Instructions on using and Precautions

The environmental condition to harden is room/liquid temperature are over 20℃, and humidity is under 80%. And which may cause a hardening failure by moisture.

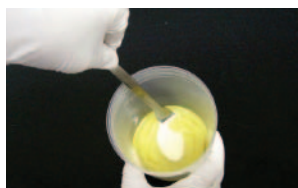


- 1 Add curing agent to main material. The mixing ratio (by weight) is 3:1 (main material:curing agent).

※In the case that you paint, please mix pigments in main material in advance. And then mix curing agent in a mass of pigments that added main material.

※Error must be made within 1wt%.

※If you add too much pigments, it may not harden.



- 2 Mix the resin of ① well.



- 3 Pour the mixed resin into a pattern quietly. It hardens in more than 5 hours at 20℃ or more, and it does in about an hour at 100℃ or more. The curing time depends on the environment.

※It is possible to use mold, FRP, silicon, and resin type as molding materials.



- 4 Remove from the mold after confirming hardness. Hitohada gel has an adhesive. so if the adhesive is trouble, we recommend using "talcum powder" or "surface coating agent".



# Undiluted solution of Hitohada™ gel clear type

Super soft resin for molding that transparency and foam missing preminent.



RoHS MSDS

- It is excellent transparency.
- It is softer than Hitohada™ gel.
- It is suitable for molding materials such as mannequin, figure, protect pat and so on.
- This type is hardened at room temperature and missing foam is also preminent.

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

Resin for molding

## Undiluted solution of Hitohada™ gel clear type Number / Size / Price



100g set (Main agent 50g/Curing agent 50g)

- This is a super soft and transparent resin for molding.
- The set is composed of the main agent, curing agent.

Number	Color	Contents(g)	Price(not in tax)
H00-100J	transparency	100	¥ 2,400

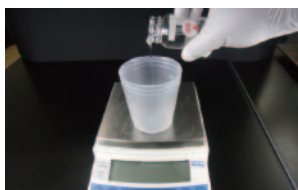
※This is single-used-type.



 This is power up!

New Hitohada™ gel transparency type is foam missing excellent!  
It is possible to make transparency gel easily without special equipment and labor.

### Instructions on using and Precautions



**1** Add curing agent to main material.  
The mixing ratio (by weight) is 1:1  
(main material:curing agent).

※In the case that you paint, please mix pigments in main material in advance.  
And then mix curing agent in a mass of pigments that added main material.  
※Error must be made within 1wt%.  
※If you add too much pigments, it may not harden.



**2** Mix the resin of ① well.



**3** Pour the mixed resin into a pattern quietly. It hardens in more than 5 hours at 20°C or more, and it does in about an hour at 100°C or more. The curing time depends on the environment.

※It is possible to use mold, FRP, silicon, and resin type as molding materials.  
※The silicon type is compatible.



**4** Remove from the mold after confirming hardness.

# Undiluted solution of Hitohada™ gel foam type

Molding resin to make soft sponge foam by oneself.



MSDS

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and Impact absorption / Screen protection supplies

Resin for molding



- Fully foaming at 10~15 minutes.
- Swell to about 8times.(It changes expansion ratio and softness by condition.)

## Undiluted solution of Hitohada™ gel foam type Number / Size / Price



160g set (Main agent 64g/Curing agent 100g)



1600g set (Main agent 640g/Curing agent 1000g)

- This is undiluted solution for molding resin to make soft sponge.

Number	Color after molding	Contents(g)	Price(not in tax)
F-160	white	160	¥ 2,500
F-1600		1600	¥ 16,000

※The amount of other than the above, please contact.

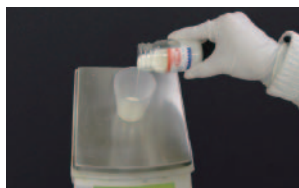
## Mokoccho(trial kit of foaming) Number / Size / Price



- The set is composed of the liquid 1(to swell), liquid 2(source of sponge), type for pouring, and manual.

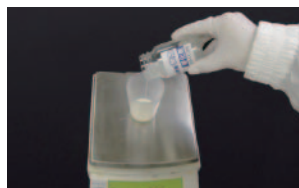
Number	Color after molding	Completed form	Price(not in tax)
UFO	light blue	UFO	¥ 950
STAR	yellow	STAR	¥ 950
CLOUD	pink	CLOUD	¥ 950

### Instructions on using and Precautions



**1** Add curing agent to main material. The mixing ratio (by weight) is 64:100 (main material:curing agent).

※In the case that you paint, please mix pigments in main material in advance. And then mix curing agent in a mass of pigments that added main material.  
 ※If you add too much pigments, it may not harden.



**2** Mix the resin of ① quickly.

※If you mix too much, it may not be foamed. Pot life from the mixing of the resin to flow into the mold is a standard one minute.



**3** Pour the mixed resin into a pattern quietly. It is foamed completely in 10~15 minutes.



**4** Remove from the mold after confirming hardness. It is possible to make B5 size, 3cm thick from 160g set.

※Curing is completed in about 12 hours after foaming completely. If you remove from the mold before foaming completely, the gel may deflated. Please be careful.



# Hitohada™ gel optional goods

It is possible to use an undiluted solution of Hitohada gel more convenient.

RoHS MSDS

## Optional goods Number / Size / Price

- We have more convenient optional goods when you use an undiluted solution of Hitohada gel. It is possible to use to clear type(P.41) and foam type(P.42).



- Surface coating agent (25g/100g)** Coating agent to keep the adhesive of the surface.

Number	Material	Contents(g)	Price(not in tax)
HC-25	one liquid curing urethane	25	¥ 700
HC-100		100	¥ 1,400

※It is an elastic coating agent. Please use for painting with brushes.



- Pigments of Hitohada** It is possible to mix any pigments. And you can use coloring dissolved in the coating agent after hardening.

Number	Color	Contents(g)	Price(not in tax)
HG-S	beige	6	¥ 600
HG-R	red		¥ 300
HG-B	blue		¥ 300
HG-Y	yellow		¥ 300
HG-K	black		¥ 300
HG-W	white		¥ 300

※They are organic pigments. And they have good chemistry except for urethane.



- Barrier coat (release agent)** To improve the mold release.

Number	Color	Contents(g)	Price(not in tax)
Ba-6	transparency	100	¥ 1,300

※Please use for painting with brushes.



- Shiroren (molding silicone)** Take a cast type from prototype..

Number	Color	Contents(g)	Price(not in tax)
RTV-2K#1406	white	1000	¥ 5,000



- Disposable cup (stirred vessel)** Disposable beaker to mix liquid.

Number	Contents(ml)	Price(not in tax)
CUP100	100	¥ 30
CUP300	300	¥ 50
CUP500	500	¥ 70
CUP1000	1000	¥ 120
CUP2000	2000	¥ 300



- Degassing unit** Pull out the foam in the vacuum.

Number	Inside dimension(mm)	Price(not in tax)
DAP	φ 180×H240	¥100,000

※Please use large vessel to prevent boiling over when it vacuumed.

※Please prepare a special vacuum pump and hose.

Clean supplies

Fixation / Non skid supplies

Removed dust supplies

Vibrational and impact absorption / Screen protection supplies

Resin for molding



# We send our products anywhere in the world!



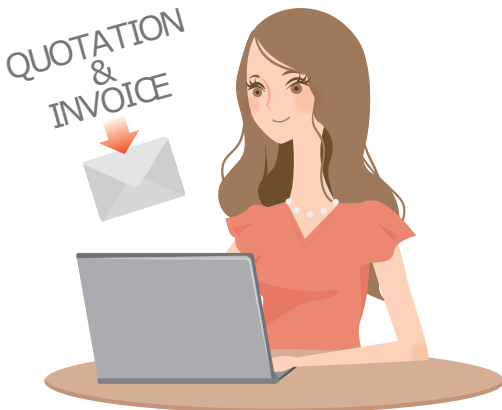
## I )INQUIRY



Please contact us by e-mail. Specify the product number & name, quantity, and your contact information.

address : [info-english@exseal.co.jp](mailto:info-english@exseal.co.jp)

## II )QUOTATION and INVOICE



We will estimate the total amount of your order.  
The quotation includes product price, handling charges and sending cost.

## III )PAYMENT



Payment in Japanese Yen by wire transfer is required.  
All charges related to the remittance are to be paid by the customer.  
Please inquire at the bank for the overseas remittance charges.

Note: Sending cost including all handling charges are to be covered by the customer.

## IV) SHIPPING



We will make a shipment as soon as we confirm your payment.  
We will inform you of the shipment completion and item number for your reference.

Shipment options:

**EMS(most recommendable):**

You pay for the product, shipping cost, and handling charges. After confirmation of your payment, we will send the product.

\* We decide a way of shipment about delivery of dangerous substance (like a "Hitohada Gel") in consultation.

## V) ARRIVAL



It takes time to arrive depending on countries.  
Please wait until a product arrives.

If you would like to inquire, please do to the following:

**EX** EXSEAL corporation.ltd.

277-1, Oyada, Mino-city, Gifu 501-3771, Japan

Tel: 81-575-33-0872 Fax: 81-575-35-1590

address: info-english@exseal.co.jp

<http://www.exseal.co.jp/english/>





# Physics

Data item	Lift-mat	Step-mat	Hand/Body roller	Gel tack	Hitohada gel			Hitohada gel clear type	Pit cushion & sheet	Soft cushion & sheet	
					0	5	15				
Specific gravity	1.04	1.04	1.04	1.08	1.04	1.04	1.04	1.00	1.05	1.13	
Hardness	Shore A	48	8	1	3	0	0	1	0	65	48
	Shore C	67	30	15	25	0	5	15	0	80	67
Tensile strength	Strength N/mm <sup>2</sup>	20.79	8.40	1.58	0.88	0.34	0.58	1.58	0.02	13.82	1.58
	100% Tensile stress N/mm <sup>2</sup>	-	-	0.11	0.12	0.01	0.03	0.11	0.01	1.96	0.45
	200% Tensile stress N/mm <sup>2</sup>	-	-	0.35	0.18	0.03	0.05	0.35	-	3.58	0.59
	300% Tensile stress N/mm <sup>2</sup>	-	-	0.72	0.26	0.05	0.09	0.72	-	3.9	0.7
Tensile elongation %	60	96	450	864	758	550	450	156	688	726	
Tear strength N/mm	96.0	23.5	3.2	4.13	0.17	2.70	3.16	0.20	19.5	18.1	
Compression strength	10% N/mm <sup>2</sup>	0.04	0.05	0.04	0.05	0.00	0.02	0.04	0.00	0.76	0.2
	20% N/mm <sup>2</sup>	0.08	0.05	0.09	0.10	0.00	0.05	0.09	0.01	1.64	0.45
	30% N/mm <sup>2</sup>	1.22	0.35	0.14	0.15	0.01	0.12	0.14	0.02	3.04	0.76
Compressive elasticity modulus N/mm <sup>2</sup>	6.78	3.22	0.51	2.81	0.12	0.23	0.51	0.1	25.87	4.49	
Water resistance	pass	pass	pass	pass	pass	pass	pass	-	pass	pass	
Water absorption (W/V)	Room temperature 24hrs %	3.6	3.9	4.8	10.8	7.2	6.0	4.8	-	2.7	-
	40°C 24hrs %	3.0	3.1	5.6	6.9	4.5	6.8	5.6	-	4.8	-
Oil resistance 40°C 24hrs %	pass	pass	-7.29	1.74	-9.04	-8.60	-7.29	-	0.31	-	
Acid resistance 24hrs	21.2	21.5	55.9	pass	pass	pass	pass	-	pass	pass	
Alkali resistance 24hrs	2.1	1.2	0.7	pass	pass	pass	pass	-	pass	pass	
Environmental resistance 80°C 80% 24hrs	pass	pass	pass	pass	pass	pass	pass	pass	-	pass	pass
Heat aging resistance	Tear strength N/mm <sup>2</sup>	17.7	8.30	1.31	0.76	0.30	0.68	1.31	-	17.74	2.07
	100% Tensile stress N/mm <sup>2</sup>	-	-	0.08	0.06	0.01	0.02	0.08	-	2.17	0.68
	Elongation %	46	47	492	1446	660	562	492	-	448	537
Compression set	70°C 22hrs %	82.2	19.0	9.16	2.4	17.9	14.9	9.16	0.0	12.1	25
	100°C 70hrs %	100	76.4	15.6	88.6	41.8	15.9	15.6	-	50.0	-
High temperature resistance °C	-30~60	-30~60	-30~60	-30~80	-30~60	-30~60	-30~60	-30~60	-30~60	-30~80	-30~80
Low temperature resistance -30°C 24hrs	No brittleness	No brittleness	No brittleness	No brittleness	No brittleness	No brittleness	No brittleness	No brittleness	-	No brittleness	No brittleness
Adhesion	180°C Peel N/25mm	0.15	0.05	0.06	7.55	0.15	0.07	0.06	0.10	-	-
	Holding power <sup>*1</sup> sec	0mm	5	17	0mm	180	43	17	2	-	-
	Ball tack NO.	Less than No.1	Less than No.1	2	20	10	6	2	8	-	3
Coefficient friction	Coefficient static friction	-	-	-	-	-	-	-	-	0.82	-
	Coefficient dynamic friction	-	-	-	-	-	-	-	-	0.45	-
Visible light transmission %	0.1	0.1	0.1	92.7	0.1	0.1	0.1	-	92.3	-	
Proper load Kg/cm <sup>2</sup>	-	-	0.73	0.93	0.16	0.19	0.73	-	12.0	3.25	

Note 1) The above data are for reference, they are not guaranteed.

Note 2) These contents are subject to change by specifications or performance Improvement without notice.

\*1 Holding power is indicated by length(mm) when test materials did not peel off.





Hyper gel			Semi-conductive gel			Clear tack	Puyo-tect			Remarks(JIS No.)
30	50	70	15	30	50					
1.08	1.08	1.08	1.13	1.13	1.13	1.08	1.09			K7311
17	30	45	0	16	30	0	0			K7312
30	50	66	15	30	50	14	7			K7312
0.83	2.19	4.30	0.36	0.53	0.68	0.66	13.6			K7312
0.15	0.37	0.78	0.05	0.19	0.22	—	-			
0.2	0.53	1.11	0.07	0.31	0.34	—	-			
0.24	0.65	1.34	0.10	0.40	0.50	—	-			
1000	775	575	656	365	414	480	39			K7312
3.30	11.56	14.5	—	—	—	0.27	43.0			K7312
0.07	0.27	0.63	0.01	0.08	0.09	—	0.03			K7312
0.15	0.59	1.27	0.03	0.17	0.21	—	0.08			
0.26	1.05	2.09	0.05	0.31	0.38	—	0.17			
0.75	3.25	6.78	0.21	0.80	0.95	—	0.43			
pass	pass	pass	pass	pass	pass	—	pass			K7312
0.9	0.7	0.5	4.0	1.6	1.6	—	-			K7209
1.4	1.0	0.9	10.2	5.6	3.8	—	-			K7209
-3.4	0.3	0.1	—	—	—	—	-			K7312 No1 oil
pass	pass	pass	pass	pass	pass	—	pass			K7312 10%HCl
pass	pass	pass	pass	pass	pass	—	pass			K7312 10%NaOH
pass	pass	pass	pass	pass	pass	—	pass			
0.82	2.21	2.36	0.37	1.48	1.54	—	13.0			K7312 80°C48hrs
0.15	0.38	7.95	0.06	0.32	0.74	—	-			
1000	775	575	392	372	24.9	—	38			K7312 80°C48hrs
4.8	2.1	1.5	—	41.8	24.9	—	20.3			K7312 compressibility 25%
8.9	5.0	3.5	—	—	—	—	88.8			K7312 compressibility 25%
-30~80	-30~80	-30~80	-30~80	-30~80	-30~80	—	-30~60			
No brittleness	No brittleness	No brittleness	No brittleness	No brittleness	No brittleness	—	No brittleness			
0.81	0.67	0.09	2.25	0.95	0.55	0.75	0.00			Z0237
0mm	0mm	—	68	336	283	231	0			Z0237 1kg 24hrs
8	3	3	22	13	11	8	Less than No.1			Z0237 30°C
—	—	—	—	—	—	—	-			K7312
—	—	—	—	—	—	—	-			K7312
93.4	91.4	—	—	—	—	89.5	93			
0.87	4.30	9.50	0.20	1.22	1.45	—	-			

