

# Suminoe Co.Ltd

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## *Carpet Tile Installation Method*



# Carpet tile and cushion backed carpet tile installation

## ● Floor check and inspection

1

Although the installation of Suminoe's carpet tiles is relatively easy, it is important to inspect the floor and evaluate whether its characteristics are adapt for the carpet tiles application.

### • Flooring where carpet tiles can be installed

- ① Concrete mortar floor
- ② Vinyl tiles or sheets floor
- ③ Raised floors
- ④ Wooden flooring
- ⑤ Flooring blocks
- ⑥ Stone flooring

### • Flooring where carpet tiles cannot be installed

- ① Carpet covered flooring
- ② Tatami
- ③ Soft materials covered floorings.

2

It is important to evaluate the floor conditions that should be the most desirable for the application of the carpet.

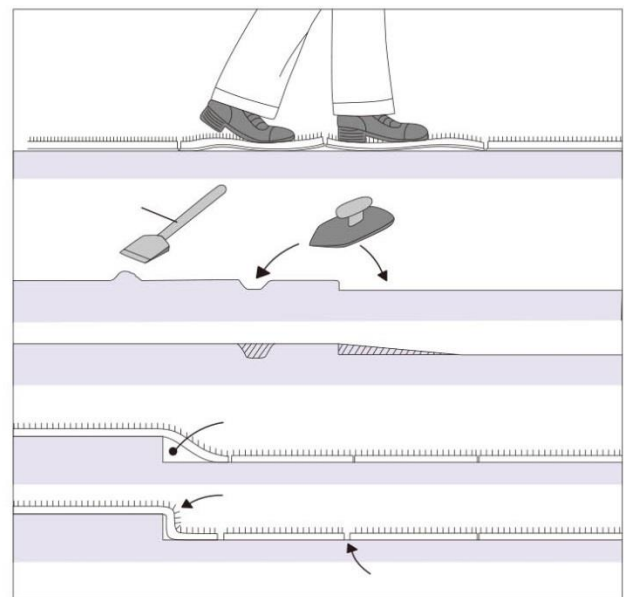
- ① Is the floor dry?
- ② Is the floor levelled and without bumps?
- ② Is there any nail's head coming out from the floor?
- ③ Is the floor damaged or peeled off?

### Concrete mortar floor

- Repair any concavity on the floor
- Eliminate any convexity by a graver
- If there are unlevelled area on the floor, please fill them with mortar or with wood applications
- Clean carefully the floor before the carpet tile installation
- Check if the floor is dry

(The room temperature must be higher than 5 degrees with a humidity level lower than 8%)

When the adhesive agent is applied on a surface with a humidity level over 8%, it may be that the reaction of the plasticizer included in the PVC material with water causes the emission of 2-Ethyl-1-hexanol which is a source of bad odor. This may happen particularly in rooms with poor ventilation. To avoid the occurrence of bad odors, please install the carpet tiles on dried surfaces.



### Vinyl tiles or vinyl sheet floorings

Check the adhesive strength of the vinyl tiles and vinyl sheet floorings.

Adjust any imperfection in the edges or surface of the vinyl tiles or vinyl sheet floorings.

Completely remove watery wax from the floor.

Carefully remove the resin wax which does not make the carpet tile perfectly adhere on the floor.

Once the installation of carpet tiles is completed, even if the carpet tiles were all removed, the condition of the vinyl tiles and vinyl sheets on the floor will differ from the original one.

### Raised floors

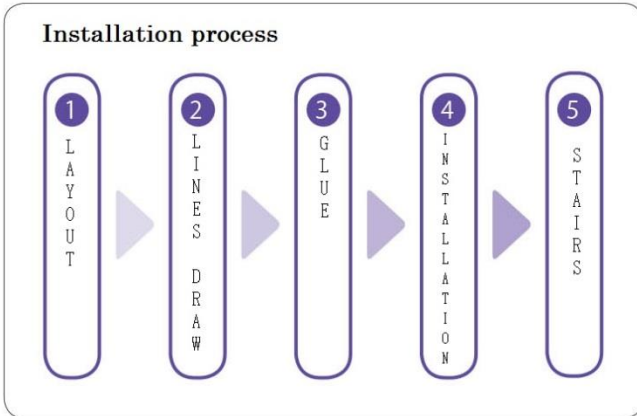
There must be a distance lower than 2mm between panels. The optimal distance should be lower than 1mm. Depending on the level of traffic of the area, this distance can cause an unlevelled surface that can create undulations on the carpet tiles.

Carpet tiles installation on raised floors without adjusting devices, with a large distance between panels, with high irregularities on the surface, or unstable panels can cause undulations, exfoliations, and damages on the carpet tiles.

In case of cables installation, after the removal of the carpet tile, it is important to check how much adhesive force of the glue has remained before replacing the carpet tile in its original position. Due to dust and other sources of dirt, the adhesive force of the glue may decrease, rendering necessary another additional application of the adhesive agent.

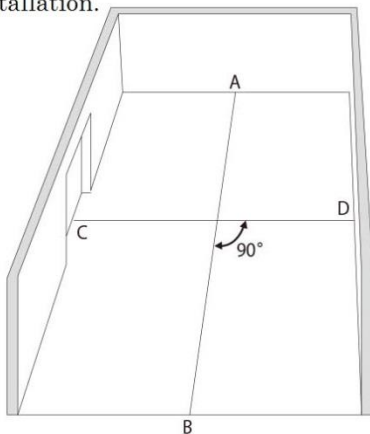
# Carpet tile and cushion backed carpet tile installation

## Installation



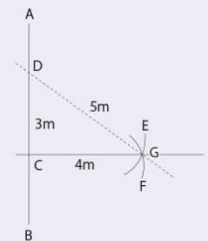
- Suminoe carpet tiles have a size of 50x50cm and 25x100cm. Try to create a lay out which reduces unnecessary cuts of carpet tiles and is compatible with the characteristics of the carpet tiles. In areas with high traffic or in proximity of exit/entrance, create a lay out that can allow an easy replacement of the carpet tiles. Try to avoid small cuts on the wall extremity surfaces. If this were not possible, move the central line and rebalance the lay out to well place the carpet tiles on floor.

In square sized rooms there is an expected loss of 3% of carpet tiles due to the cutting. In rooms with different size of the loss is more than 5 %.
- Divide the room in four parts. First draw the A-B line in center of the room, then draw the C-D line perpendicularly to the A-B line (at 90 degrees). If the room is not divided by perfectly perpendicular lines, the edges/joints of the carpet tiles will be out of order at the end of the installation.

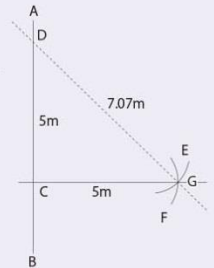


### CAUTION

Draw the line A-B and choose a point C on that line. From the point C, set the point D at 3 m of distance, then around the point D draw the circle line E of 5 m radius. Then, from the point C draw circle line of F of 4 m radius. Find the point of intersection G of the E and F lines and then draw a line to unite the point C and G. In this way, you will have the two lines perpendicular.



In the lay out draw the line A - B and find C. From C on A-B line, set D on a fixed distance (in this case 5 m); then around D draw the E circle line with a radius of the fixed distance  $\times \sqrt{2}$  (in this case  $5 \times 1.414 = 7.07\text{m}$ ). From C, draw the F circle line of with a radius with the same length of the fixed distance (in this case 5 m) and find the point of intersection G of the E and F line. Like in the previous case, draw a line that joins C and G; you will have a perfect 90 degree angle.





# Carpet tile and cushion backed carpet tile installation

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- We recommend to use Cesar Bond as adhesive agent
  - Spread the adhesive agent with a roll or a combing trowel from the central line drawn in the room.
  - In case of free access floor, do not put the adhesive agent on the panels' edges or concavities.
  - The quantity of adhesive agent and drying period depends on the type of floor.
- Please consider the following table as an indication for the installation.

Floor that easily absorbs liquids	Quantity 100-150gr/m <sup>2</sup>	Drying time 15-20minutes
Floor that hardly absorbs liquids	Quantity 80-120gr/m <sup>2</sup>	Drying time 20-25minutes

As the drying time varies significantly on season, type of floor, air conditioning level etc., please consider the above table as an indication.

The adhesive agent is well dried when it becomes transparent. Its original color is light blue.

If you place the carpet tile on the adhesive agent without properly let dry, the adhesive force will be too strong and render difficult the removal of the carpet tile in the future.

### Carpet tile application important tools

It is relatively easy to install our carpet tile, but it is necessary to have some tool to complete the installation properly.

- writing implements
- screwdriver
- measure
- ruler/square
- cutter
- hammer
- saw
- sandpaper
- bar
- non-slipper
- screw
- Cesar Bond
- Knee Kicker

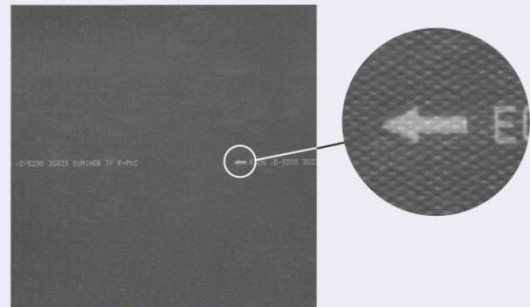
4

4-1

Starting from the intersection in the center of the room, place the carpet tiles along the central line. Line 10 carpet tiles on the central line with a distance of 3-5mm between each carpet tiles.

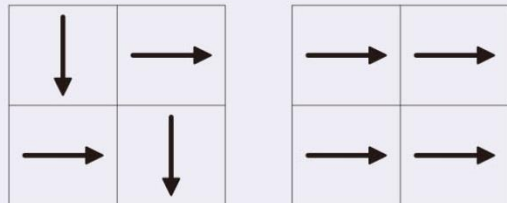


On the back of each tile carpet there is an arrow that indicates the direction of the pile.



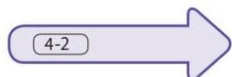
You can install carpet tiles with Monolithic or Chequer Board method.

Check the arrow on the back of the carpet tile and make the installation paying attention to the direction of the pile.



In case of application on raised floors, do not place carpet tile in a way that its edges joint perfectly the edges of the raised floor panel. It is recommended to place the carpet tile in the middle or in a 1/3 of the panel. The joining of the edges of carpet tile and panels can make the joints between carpet tiles more visible.

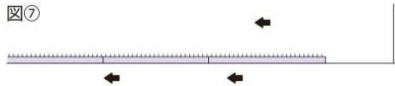
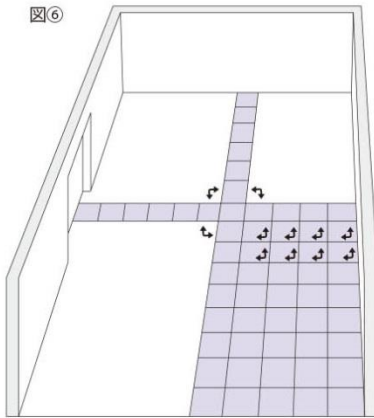
The external light on the pile surface may make the carpet tile' color look slightly different. For this reason, check each carpet tile pile direction and place the carpet tiles in the best way to create a homogeneous look.



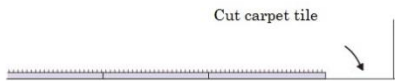
# Carpet tile and cushion backed carpet tile installation

4-2

As in the picture, place the carpet tile along the central line of the room and cut the extra part of the carpet tiles do not fit in the room.



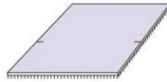
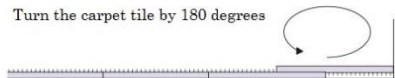
Pose the carpet tile on the desired installation position and make two marks on the carpet tile backing by a cutter.



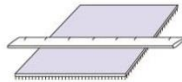
Use the same pile direction of the adjacent carpet tile.



Turn the carpet tile by 180 degrees



Position the ruler on the mark and cut the carpet tile. The cut edge should go always against the wall.



CAUTION

Proceed with the installation of carpet tiles on the floor only after the adhesive agent has dried.

As the drying time varies for season, type of floor, air conditioning level etc., please calculate this time arbitrarily. Please apply the carpet tiles only when Cesar Bond becomes transparent. Cesar Bond has a light blue color before it gets dried. If carpet tiles are applied on the glue which is not perfectly dried, they become hardly removable.

### Tile Carpet Adhesive strength

On the slopes or area where tile carpet can slip, please apply epoxy resin or urethane resin adhesive tread. The application of resins makes the carpet tiles difficult to remove. If you remove the carpet tiles on slopes, please replace them with new ones as they physical properties may be damaged.

### Carpet tiles with high cut pile

The pile of carpet tile with thick cut pile carpet tiles can bend out of the carpet tile surface once the cut has been made. This may cause an imperfect joint of the edges between carpet tiles.

In this case, use a knee kicker to level the carpet tile edges. Avoid any twist of the pile on the edges of carpet tiles.

### Cushion Back Carpet tile

Please apply higher quantity of adhesive agent in case of cushion backed carpet tiles. (more than 100gr/m<sup>2</sup> for floors that hardly absorbs liquids/more than 130gr/m<sup>2</sup> for floors that easily absorbs liquid)

Wait until the adhesive agent becomes transparent before applying the carpet tiles.

If due to the storage of the carpet tiles, the materials present some curving, please level them by hands and apply the levelled carpet tiles on the floor.

Remove any undulation on the carpet tile with the hand roller pressing the edges.

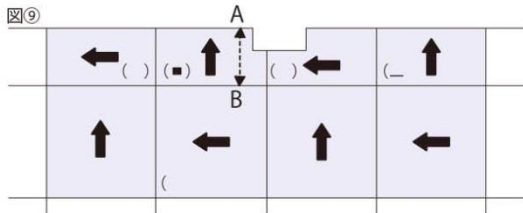
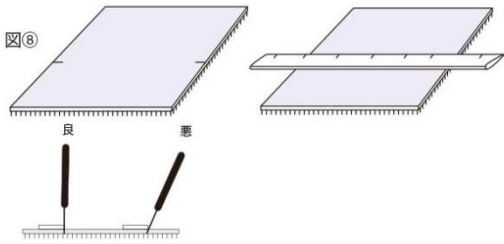
As for the other type of carpet tiles, the cut edge should be against on the wall.

In case of cable installation, once the carpet tile has been removed, please replace it and level it again in order to eliminate any curving.

# Carpet tile and cushion backed carpet tile installation

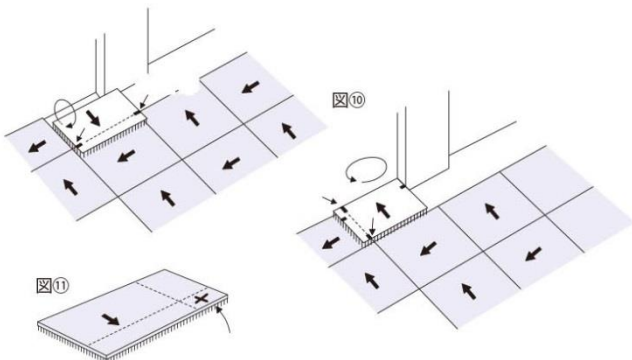
4-3

When cut the carpet tile, make two marks on the back, place the ruler between them and proceed with the cut. Use the cutter to make a cut perpendicular to the backing as in the picture.

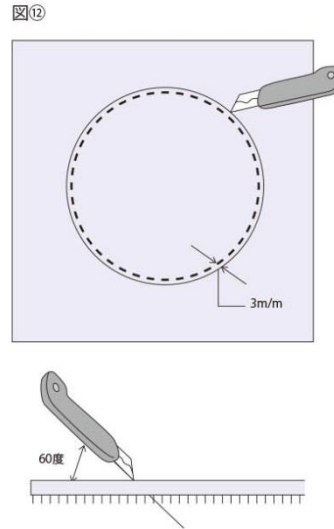


In case of an installation close to a protuberance on the wall, the carpet tile needs to be cut.

- 1- Turn the carpet tile, put it against the wall, make the marks on the backing following the edge of the adjacent carpet tile, place the ruler on the marks and proceed with the cutting.
- 2- After the first cut, do the same in the other direction to make the marks. Then, rotate carpet by 180 degrees and make the cutting. The back should look like that in the picture.
- 3- After having signed the backing with the two lines proceed with the cutting.



In case of a circle cut, draw a circle on the back of the carpet tile on average 3mm larger than the real dimension and cut the carpet tile with a cutter with an inclination of 60 degrees on the surface.



When cut loop-pile carpet tile, insert the cutter until the extremity of the pile. If you cut only the backing, please insert again the cutter in the carpet tile and cut also the pile. If there are some pile coming out of the carpet please cut it with the scissors.



# Carpet tile and cushion backed carpet tile installation

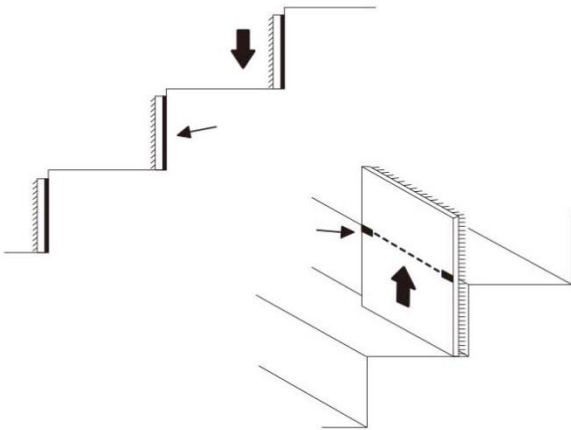
31mm

5

Apply the carpet tile with non-slip tools.

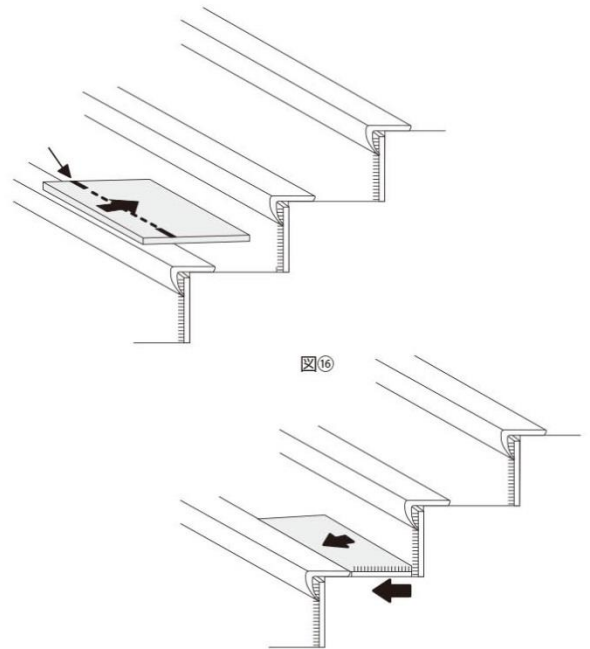
5-1

Cut the carpet tile, posing it along the surface of the step as in the figure and pay attention to make a cut 2-3mm shorter than surface dimension. Apply a glue base board on the surface and apply the carpet.



5-3

Proceed with the cutting as usual. Pay attention to install the carpet against the no-slipper.



5-2

Once the carpet has been installed, fix the no slipper with the glue and the screw.

