

KCC Commercial Sheet Installation Guidelines

CAUTION FOR HANDLING

- Carefully read the instructions shown on each subsidiary material prior to the installation. If you have any questions, please contact our Customer Support Center at +82-2-80-022-8200.
- After completing the installation, please provide the customer with the Guidelines to ensure correct use and care.

1. Storing and Transporting

When storing the product, do not lay it on its side or stand it against the wall, but set it upright on flat surface. Prevent the product from falling to avoid injury and damage. Temporary storage at installation site or during transportation, the product can be laid on its side.

Due to weight of the product, it is recommended proper carts are used in moving the product.

2. Installing

Those who work in confined area shall wear personal protective equipment. In addition, the working area shall be frequently ventilated for circulation of fresh air.

Since the adhesive and the glue contain flammable organic solvent, make sure not to be exposed to the ignition.

Since a cutting knife or a sharp edge of the product may cause the personal injury, put on protective gloves during installation.

3. Usage

The product is inflammable and can generate a health-hazardous smoke during a fire.

Do not apply wax on products having UV layer.

Immediately remove foreign substances such as water, oil or sand from the product surface to prevent slippage. Use an anti-slip mat at the door entering from the bathroom or outside.

Please consult with local waste management authority when disposing the product.

Fully ventilate the room for 2-3 days after installation.

Do not use the product other than for the use of residential and commercial flooring.

INSTALLATION MANUAL

1. Tools for Installment

- Measuring tape, steel rule, cutting knife, edge trimmer, long scribe, recess scribe, hand roller, 50kg roller, Adhesive for commercial flooring specified by KCC, the trowel for applying the adhesive.

2. Initial Maintenance and Preparation

- Make sure that all the materials are not exposed to direct sunlight, snow, or rain, and are stored in a well ventilated area.
- To prevent color variation, products should be categorized into LOTs and only products with same LOT should be used during installation.

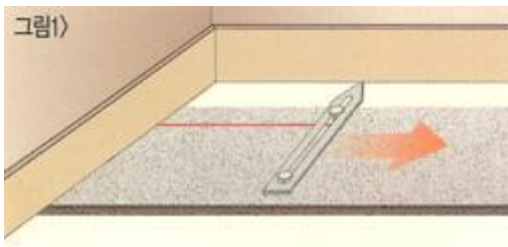
3. Pretreatment of the Floor

- Turn on heater for 7-14 days prior to installation to properly dry the SUBSTRATE down to less than 4.5% of the moisture content before installing and then stop heating on the day of installation.
- Fill the cracks and pits with the Crack Cover, grind the projections, and remove foreign substances such as sand or dust to make the surface smooth prior to installation.
- Since the hardener used for the floor repairing contains epoxy materials which may cause discoloration of the product surface, please contact us for technical support prior to installation.
- Burn up the contaminant such as varnish, paint, lacquer, wax, and the finish with as protective aluminum foil tape on the remainder.
- Completely remove existing flooring and adhesives as well as the wall paper adhesives at the interface region prior to re-installation.
- Note that the product installed on the plywood could deform due to the level difference while the product installed on heating panels could deform due to the level difference or a sharp increase in temperature.

4. Checking and Cutting a Roll Stock

- Acclimate the product at the temperature of the installation site before installing.
- The area to be installed should be maintained between 18°C and 22°C for 48 hours before, during and after completion.
- For a product with a modular pattern, temporarily cut the product so that the patterns are well arranged, and all products shall be installed in a reverse direction.
- Temporarily cut the product so that there would be extra remaining
- Place the long scribe so that the tip of it would face towards front wall. Pull it to mark a line on the product while keeping it perpendicular. Then using cutting knife, cut it with an angle so

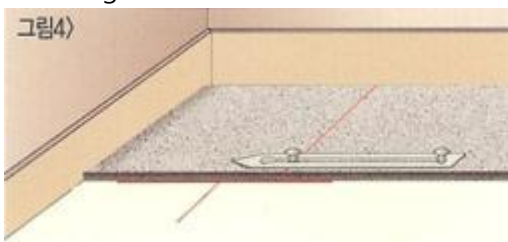
that the other side of the surface would be cut out more than the surface side.



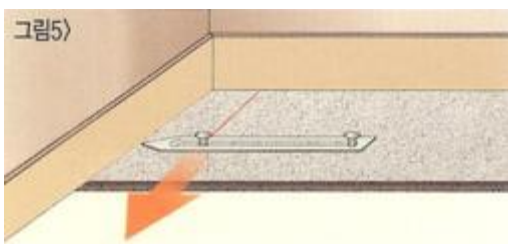
- For the cutting of the part which is folded over the lower part of the wall, draw a line along the end of roll and mark a '+' line vertically.



- Slide down the folded part to the ground maintaining the end of roll to the line drawn on the ground. Place the long scribe so that it can measure the length between the '+' line and the line on the ground.



- Use the long scribe to draw a horizontal line from the end to the distance that has been rescinded.



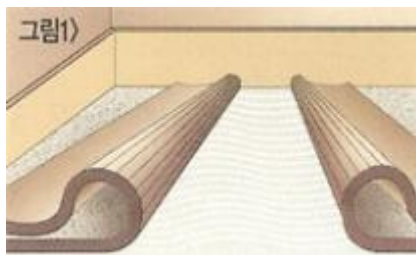
- Cut along the line and attach the end to the wall.
- Repeat the same procedure for the opposite end of the roll.
- When the first floor is cut, prepare for the next floor by trimming the joint part with the edge trimmer.



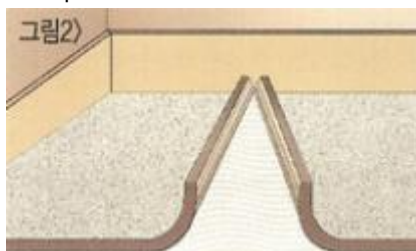
- Since the reference cutting line printed on the back may be different from the actual measurement, use a measuring tape for correct cutting.
- Use of colored pencil is recommended as permanent marker could result in discoloration of the product.

5. Applying Adhesives and Joint Installation

- Use adhesives specified by KCC (NEW-OK 3000 or equivalent) since it is important to use the right adhesive for the installation.
- When installing at sites with high pedestrian volume (like commercial buildings, offices, and hotels), full spread method should be used. After the product is cut, fold it in half, spread the adhesive, and then fix it to the sub-floor. Repeat this procedure.



- When installing at sites with low pedestrian volume (like living rooms, and kitchens), partial spread method should be used. After the product is cut, fold it lengthwise, spread the adhesive in 30cm wide from wall, and fix the product to the sub-floor. When this is done, set it as base, make sure the following has matching pattern, and apply the adhesives in 20cm wide to fix it to the place.



- To cut the joints, use a recess scribe to mark a line on the product and hold the edge trimmer at a right angle when cutting.



- Sweeping from the overlapped portion, press the product in place to make sure there are no air pockets or portions found to be loose.

6. Bonding Joints

- Applying glue should begin when all the installation process is done, and the glue specified for commercial flooring by KCC must be used.
- Apply an adequate amount of glue (1gr/m) to prevent the joint swelling (blushing or blistering) due to an excess amount of glue.
- Do not enter the area for 2~3 hours after applying the glue in order to prevent the bonding portion from peeling and being contaminated.
- Since the glue is hazardous, keep it out of the reach of children and prevent contact with eyes and skin. Store it in a cool, dark and dry place. Fully ventilate the area during the installation. Since it is flammable, make sure not to expose it to ignition.

7. Maintenance

- If a protective vinyl film with adhesive is used after installation, the adhesive on the film could contaminate the surface of the product.
- Immediately remove the substances and dye containing the organic solvent that may cause the contamination. Make sure the product is not directly exposed to lacquer, black rubber, detergent, hydrochloric acid, hair dye, or pyroligneous liquor.
- Make sure not to drag a heavy object such as furniture, refrigerator, or piano, which may cause damages or warps to the installed product..
- Use alcohol to remove any contaminant from the product surface, but do not use solvent such as acetone and thinner. Also do not use wax for the product with UV coated surface since the product is already UV coated. However, by the time when UV coating is worn out, regular wax applying is recommended for floor maintenance.
- The company is not responsible for any defect that may have resulted from installing in a way different from the provided instruction for the installation.

WELDING ROD

Standard Size: 4mm (in diameter) * 100m/Roll (length)

What is a welding installation?

Welding installation uses heat to weld a matching welding rod in the seam to prevent moisture

entering into the joints and shrinking/deformation of the product due to external force.

Welding Tools

Welding rod, automatic grooving machine, heat welder, pressing roller, manual grooving machine, cutting knife



Welding Installation

1. Preparation for Construction

- Ensure the sub-floor of the installation site is flat so that the joint would come out even.

2. Grooving

- Before welding, using automatic grooving machine, in order for the welding rod to be completely fixed to the product, cut a U-shaped groove of about $\frac{2}{3}$ ~ $\frac{4}{5}$ of the depth of the product deep. (Caution: Welding should not begin until 24 hours after the floor installation when the adhesive is fully cured)



3. Welding

- Properly choose the temperature and speed of welder so that the welding rod could fix into the joints well.

(Caution: In case of improper condition, welding rod may not to be fixed tightly into the joints and carbonization of product surface due to high temperature could occur.)



4. Trimming

- After Welding, let the welding rod ~~te~~ cool down to prevent deformation due to high temperature, then in two steps, cut out the parts that are sticking out.



- First step: Stick the slide into trimming knife to make a cut it for the first pass.



- Second step: Cut it again and this time, only with trimming knife so that the surface would be even.



- If the first step which is cutting with trimming slide is skipped, the level of welding rod would be lower than the level of product surface, so the trimming process must be done in two steps.

5. Finish

Check corners and unnoticeable areas as well.