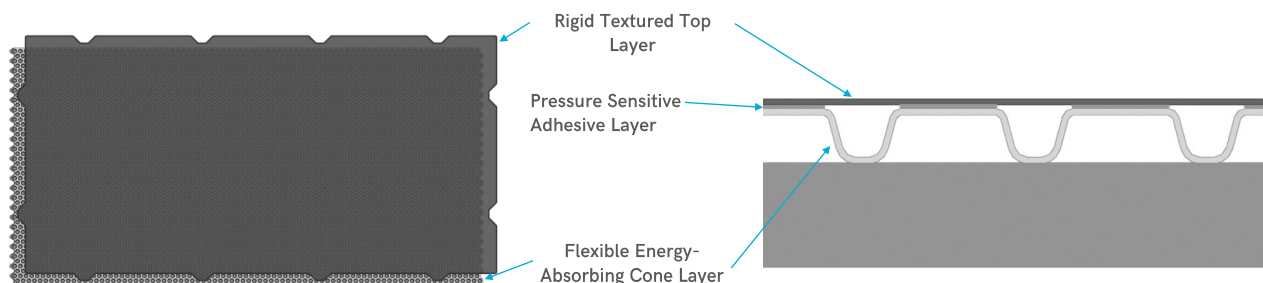


ABOUT THE PRODUCT

Viconic Fall Defense™ is a flooring underlayment system designed to reduce the risk of fall related injuries by adding military grade impact protection to compatible flooring systems.

The Viconic system is composed of two main components: the rigid, textured top layer and the flexible, energy-absorbing cone layer. These layers are attached to each other with a pre-applied pressure sensitive adhesive (PSA).

- It is important to note that these two layers are intentionally offset, allowing adjacent panels to be adhered to each other while reducing telegraphing onto the flooring system.



Viconic Fall Defense™ is a floating system. It should not be adhered to the subfloor during installation.

Viconic is designed to point-deform and recover during an impact onto the flooring surface. In order for the system to function properly, a compatible flooring and adhesive system must be selected.

Flooring systems compatible with Viconic:

- Heterogenous vinyl sheet
- Rolled carpet
- Modular carpet
- Flexible LVT/LVP (without click lock)

Flooring systems NOT compatible with Viconic:

- Hardwood
- Ceramic or stone tile
- Click lock LVT/LVP
- Other rigid floor coverings

PRE-INSTALLATION

Note: Prior to installation, the Viconic panels will need to acclimate to the temperature of the room for at least 48 hours. Follow all flooring manufacturer recommendations for product acclimation. Depending on installation conditions this may take up to 24 hours.

Note: Viconic may be installed over any rigid subfloor including: wood concrete, or a previously installed rigid flooring system.

1. Determine the number of panels and ancillary items necessary for the installation by measuring the room or referring to architectural drawings:
 - An overage of 5-20% or more will be necessary depending on the complexity and dimensions of the room.
 - You will also need to consider transitions between the Viconic system and adjacent flooring surfaces to minimize trip hazards.
 - Subsurface supports may be needed for any areas of the installation that require the flooring system to be rigidized.
2. Creating a simple 2D CAD layout is the most accurate method of determining the square footage required for the project.
3. Items you will need for installation:
 - Viconic Fall Defense™ panels
 - A broom and dustpan and/or vacuum
 - Sharp razor blades (including a hook blade)
 - Tape measure and straight edge
 - Compatible flooring system and adhesive
 - Ramped transition pieces (as necessary)
 - Subsurface supports (as necessary)
 - Acrylic latex caulk (as necessary)
 - Heavy duty construction adhesive (as necessary)
 - Viconic toilet flange seal (as necessary)

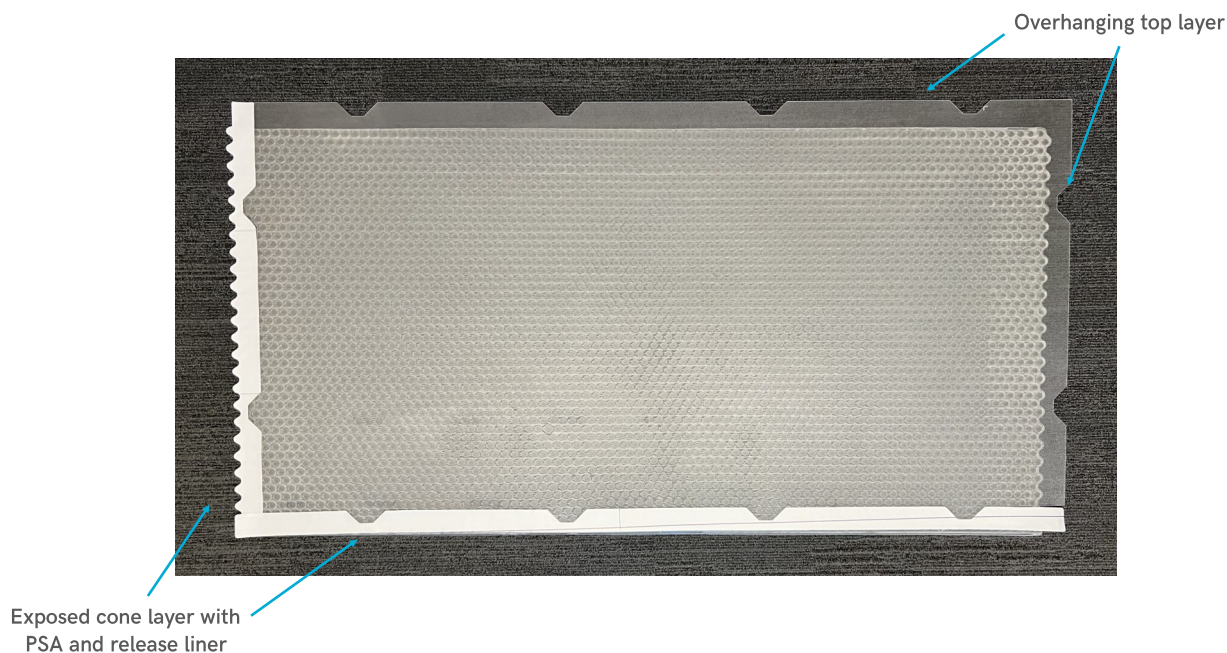
PRE-INSTALLATION CONT.

4. Ensure that the subfloor is flat to 3/16" (3.9 mm) in 10' (3050 mm) and 1/32" (0.8 mm) in 1' (305 mm). Bring high spots level by sanding, grinding, etc. and fill low spots. Smooth the surface to prevent any irregularities or roughness from telegraphing through the flooring system.
5. Evaluate all doors in the room to identify any potential clearance issues:
 - The overall height of the Viconic system is 7/16" (11.1 mm).
 - Any doors swinging into a room with Viconic will need to accommodate this height plus the height of the new flooring system.
 - Use a sample piece of Viconic with the selected flooring system and place under the full width of the door.
 - Ensure the door is able to open and close freely.
6. If the door will not open and close without resistance, two options are available:
 - If possible, removing and cutting down the door is the easiest method.
 - If the door is unable to be cut, the door jamb will have to be raised to accommodate Viconic.
7. Clear the subfloor of all debris prior to installation.
8. Determine where flooring material transitions and height transitions will be located.

INSTALLATION

Note: Each panel consists of two edges with an overhanging top layer and two edges where the flexible cone layer and pre-applied PSA are exposed and protected with a release liner. Do not remove the release liner until you are ready for installation. Once panels are adhered, they may not be disassembled without risk of delamination.

Viconic panels will need to be cut to fit the perimeter of the room and around any permanent structure.



INSTALLATION CONT.

How to: Cutting Panels

A standard box cutter or carpet knife is recommended to make any necessary cuts to the Viconic system. Use a marker and straight edge to mark all cut lines.

1. For the easiest method of cutting, flip the Viconic panel and cut through the cone layer with enough pressure to score the top layer. Once the top layer is scored, the part can easily be snapped in two.
2. The panels may also be cut from the top surface. The ridged top layer is resilient, so use several passes with a sharp blade.

With either method (but especially when cutting from the top surface) be sure to use a blade friendly cutting board under the panel. Do not trim directly on top of a Viconic panel. This will cause damage to an installed panel below.

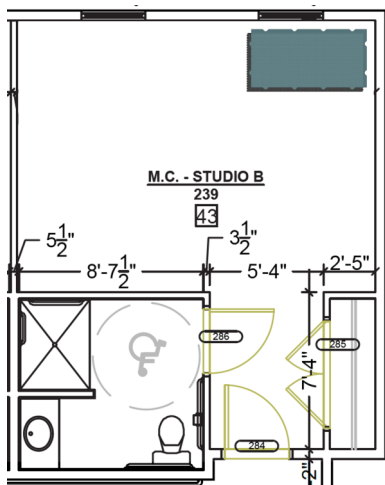
The rigid top layer must be fully supported by the cone layer for the system to function properly.

CAUTION: Cut corners and edges may be extremely sharp. Handle with caution to help prevent injury.

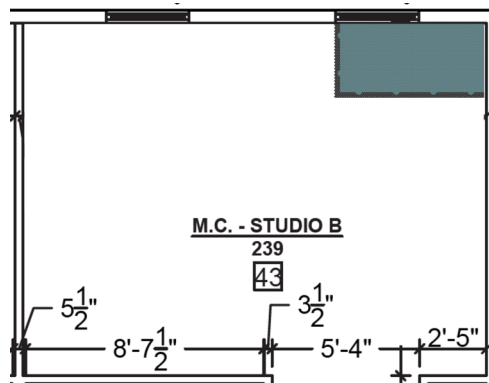


Reminder: Refer to the pre-installation panel layout to ensure the most efficient layout for Viconic.

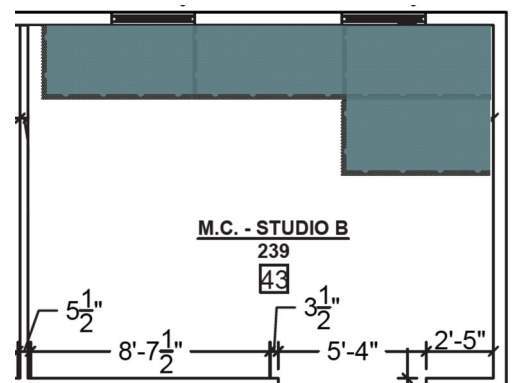
1. Start installation in the far right corner of the room with the overhanging top layer edges facing the walls
 - Trim off both overhanging top layer edges to begin. It may be beneficial to cut more than just the overhanging top layer based on room dimensions.
 - Place the first part with trimmed edges 1/4" (6.35mm) from both walls in the far right corner of the room.



Starting Installation in far-right corner of room with overhanging top layer edges facing the walls



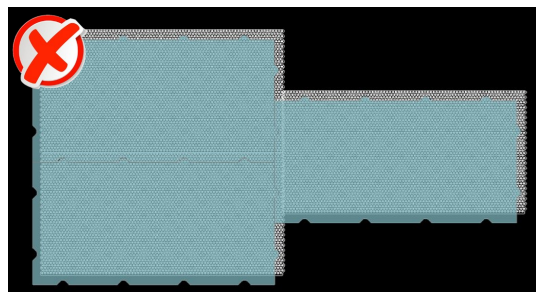
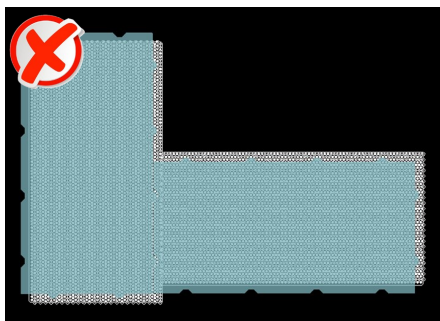
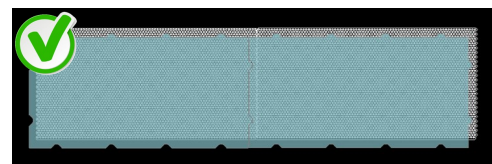
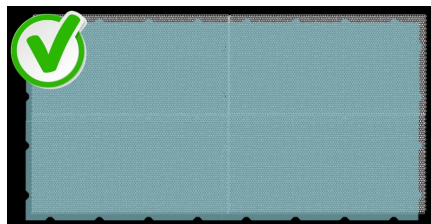
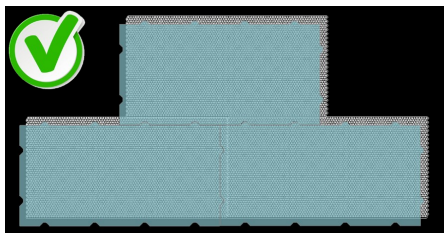
Removing the overhanging top layer on both walls



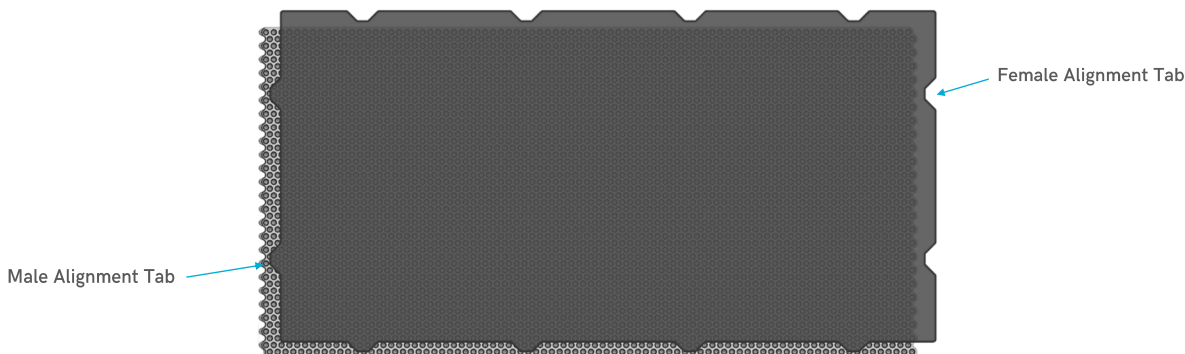
Continuing the first row of the installation while maintaining the same panel orientation

INSTALLATION CONT.

- Although it is not necessary, panels may be staggered along the long seam
 - Do not change orientation of the panels during installation, i.e. do not attach a short seam to a long seam or vice versa
2. Working in either direction, make necessary cuts to adjacent panels and dry fit together
- While laying panels, ensure all are oriented in the same direction, i.e. all release liners are oriented in the same direction



- Viconic panels need to be tightly aligned with zero overlap to avoid telegraphing of seams to the floor covering top surface.
 - All male and female location tabs must be aligned properly and gaps in the top layer between adjacent panels must be minimized.
 - Any gaps smaller than 1/16" (1.59 mm) can be typically filled using the selected troweled adhesive.
 - Any gaps larger than 1/16" (1.59 mm) must be filled with an acrylic latex caulk.
 - Any gaps larger than 1/8" (3.18 mm) are not acceptable and should be repositioned or patched with a scrap piece of the top layer cut to size.
3. After two panels have been dry fit and alignment is acceptable, remove the release liner and active the PSA by applying hand pressure to the seam.
4. Repeat this process until the floor is fully covered with Viconic, understanding additional considerations may be necessary for entryways, bathrooms, and areas where height transitions will occur.
5. The entire Viconic installation should be rolled with a 100lb roller to wet-out both the Viconic PSA and the floor covering adhesive.



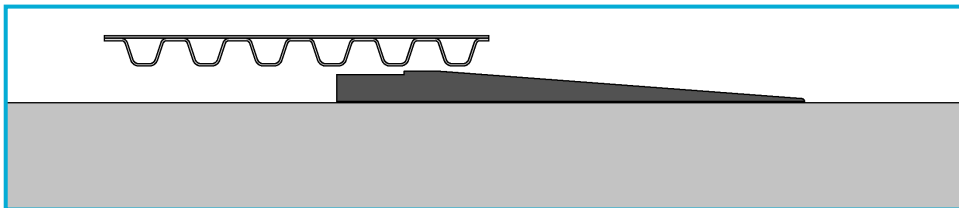
Ramped Transition Piece



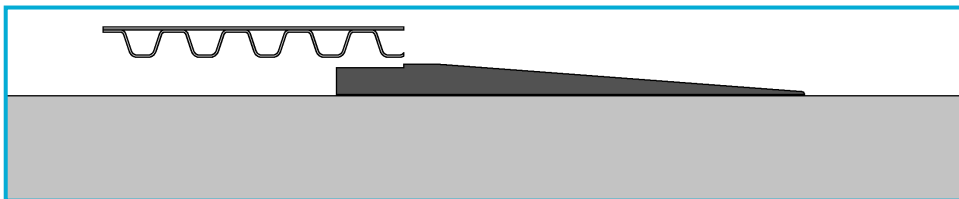
Note: Always install a Viconic ramped transition piece to transition between a flooring system with Viconic and an adjacent flooring product of unequal height to avoid trip hazards and maintain ADA accessibility.

1. Determine where the ramp will be installed. This is typically done in the threshold of the room and contained within the doorway (Step 1).
 - Note: Areas where flooring products change may require seaming or alternative transition strips.
 - It is recommended to extend the new floor covering past the ramped transition so the floor covering can be adhered directly to the subfloor outside the room.
2. After identifying the location of the transition, loose lay the transition to ensure it lays flat on the subfloor. Use a sharp blade to cut the piece to size and shape.
3. Dry fit Viconic panels to the edge of the transition strip. Do not fully install the panel(s) that will contact the transition strip. Leaving them loose-laid will make final installation easier.
 - The ramped transitions have a 1" (25.4 mm) recessed channel along the length of the part. This accommodates the rigid top layer of the adjacent Viconic panel and allows for a smooth transition into the room once the finished floor covering is installed.
4. After the ramp has been cut to size and all adjacent Viconic panels are loose laid, mark a cut line on the Viconic panel that aligns with the far edge of the recessed channel on the ramp.
 - Following this line, cut through both the rigid top layer and cone layer (Step 2).
 - Mark a cut line 1" (25.4 mm) from the freshly cut edge.
 - Following this line, cut through the cone layer ONLY. Be careful to leave the rigid top layer intact.
 - Cutting through the cone layer with a hook blade will help avoid damaging or weakening the top layer.
 - You will most likely have to cut through cones and against rows of cones to complete this process. This is acceptable when creating a creating a ramped transition seam.
 - Once cut, peel the 1" (25.4 mm) strip of the cone layer from the top layer (Step 3).
 - Dry fit all pieces and ensure the overhanging top layer fits into the recessed channel and lays flat.
5. The transition will need to be fastened rigidly to the subfloor.
6. Ensure any adhesive selected is compatible with the urethane ramped transition and the subfloor to which it is attached. Gorilla Heavy Duty Construction adhesive works well in most installations.
7. Once all pieces have been dry fit successfully and the ramped transition is adhered to the subfloor, begin the final system assembly.
8. Finish the Viconic installation by removing all release liners, applying hand pressure to all the Viconic seams, and filling any voids between panels as previously described (Step 4).
 - Note: The finished floor covering should be installed using the manufacturers recommended methods with adhesive systems which are compatible with Viconic as previously described. Viconic offers no warranty on the finished floor covering (Step 5).

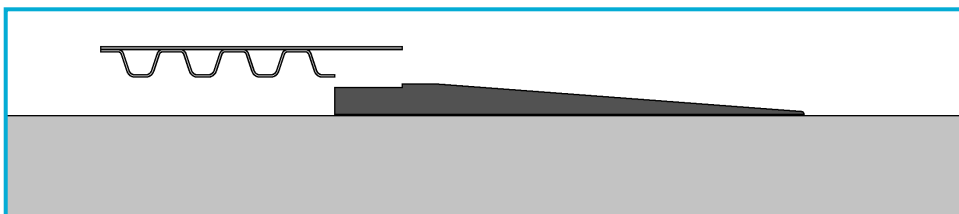
Ramped Transition Installation: Step by Step



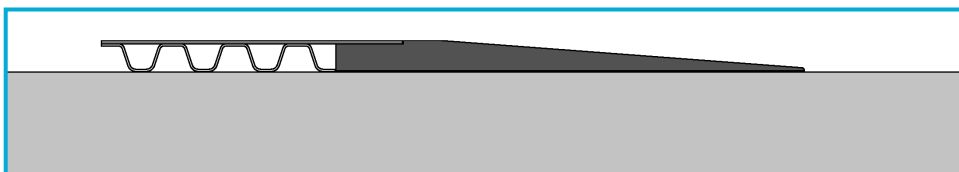
Step 1: Place ramped transition in doorway or logical transition location and dry fit adjacent Viconic panels



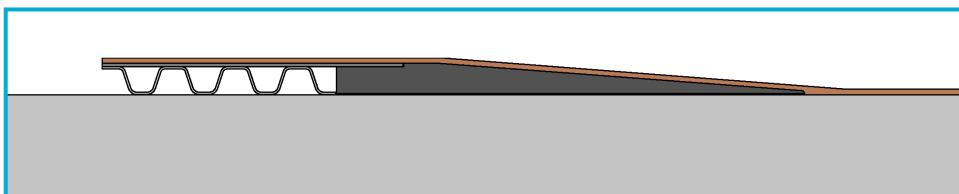
Step 2: Trim through both layers of Viconic panel at the edge of the recessed channel



Step 3: Remove 1" of the cone layer while keeping the top layer intact



Step 4: Adhere the ramped transition to the subfloor and complete installation of Viconic panels



Step 5: Install floor covering over ramped transition

Subsurface Support Installation

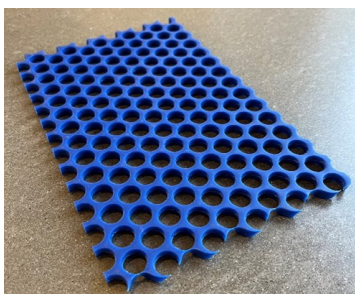
Note: Viconic reduces the risk of fall-related injuries by deforming during an impact and will deform under an applied load. Special consideration should be given to areas that will experience sustained heavy static loads in excess of 75 psi (520 kpa).

Viconic supplies subsurface supports to reduce or prevent deformation due to sustained heavy static loads.

- Areas with subsurface supports will not reduce risk of injury, therefore they should be used only where necessary.
- Examples of heavy static loads could include a hospital style bariatric bed or excessively heavy furniture.
- If you are unsure if a piece of furniture will need subsurface supports, measure the weight of the furniture (in lbs), calculate the total surface area of the feet contacting the flooring surface (in in²) and divide the weight by the surface area.
- Other recommended areas for subsurface supports include locations that need to be rigidized for mounting purposes such as a toilet mount or floor mounted grab rails.

Viconic provided subsurface supports are supplied in sheets as large as 33" x 63" (83 cm x 160 cm) and may be cut to size at the job site.

1. To install subsurface supports, determine the required piece size and location.
 - Identify the area where supports are needed.
 - Dry fit the Viconic panels and mark the area where the supports will be located.
 - Overlay the support paying special attention to cone orientation.
 - Cut the support to size using box cutter or suitable cutting tool.
 - Install the subsurface support in the marked area, making sure the cone layer is nested within the sub-surface support.
2. Ensure the Viconic panel lies flat in the subsurface support. The subsurface support may need to be cut in areas where two Viconic panels come together.



Viconic-Supplied Subsurface Support



Viconic panels must lie flat in subsurface supports



Caster cup over Viconic System

Load Spreaders

Note: Caster cups and furniture sliders should be considered if the locations of heavy static loads are expected to change, are not established at the time of the Viconic installation, or the installation of subsurface supports are impractical.

The caster cups will increase the area of loading and reduce pressure on the Viconic system.

- Standard caster cups are available at you locale hardware store.
- Choose a sufficiently rigid product, either: metal, hardwood or rigid plastic.

When choosing caster cups, determine the total weight of the static load. Verify that the total weight (in lbs) divided by the total area of the caster cups (in in²) is less than 75.

- Example: A 450 lb piece of furniture with four legs will need a total surface area of 6 in² to meet the static loading limit. This means that each of the four caster cups will need to have a surface area of 1.5 in². A square caster cup with sides measuring 1.25" or a round caster cup with a 1.4" diameter would be sufficient .

Bathroom Installations

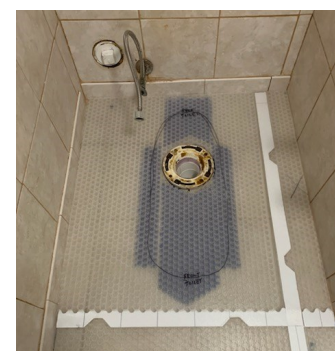
Before You Work

- To install Viconic in a bathroom setting, determine the Viconic panel layout and maintain the same panel orientation from adjacent rooms if possible (see Installation section).
- If the bathroom is connected to a room that is also being installed with Viconic, continue installing with the same panel orientation into the room.
- Determine if extended toilet mounting bolts will be necessary. The combined height of the Viconic system and new floor covering may require extended hardware.
- Viconic should not be installed in a walk-in shower; however, the system may be installed up to a pre-fabricated shower pan or tub.
- After the flooring product has been installed, the flooring system will need to be fully sealed against the shower pan using 100% silicone caulk to prevent seepage.

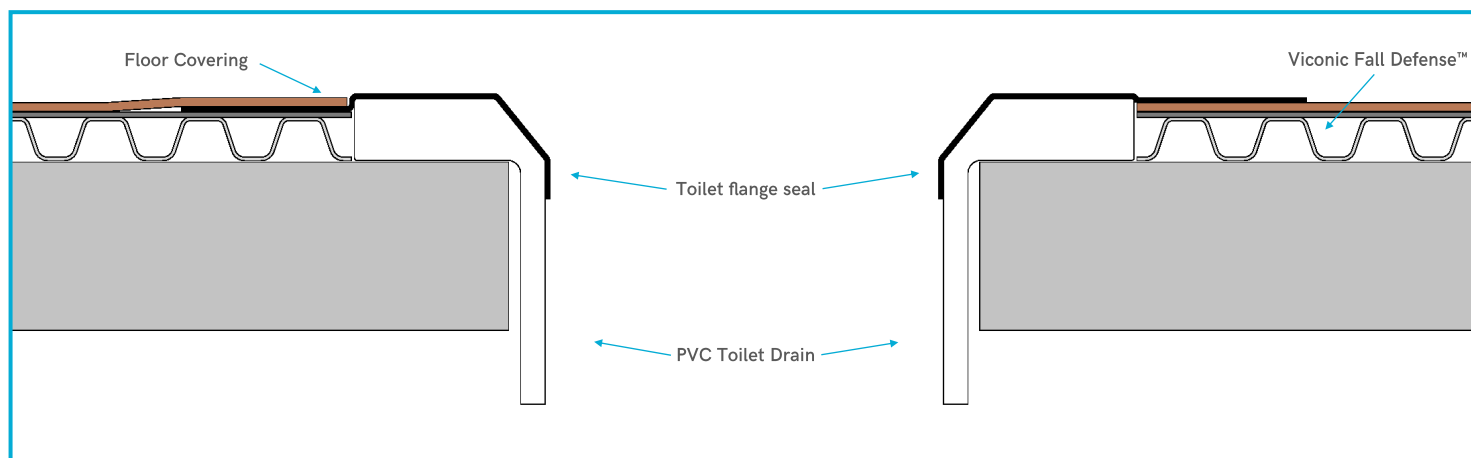


Viconic-supplied toilet flange seal

1. When installing Viconic around toilet drains, Viconic-supplied subsurface supports and a toilet flange seal are required:
 1. Loose lay the Viconic panels.
 2. Determine the exact center of the toilet flange.
 3. Mark the center point on the top surface and trim through both layers of the Viconic panel within 1/4" (6.35 mm) of the toilet flange perimeter.
 4. Subsurface support installation is recommended to create a rigid toilet mount.
2. Viconic supplies a flange seal to minimize the risk of seepage beneath Viconic in and around the toilet flange.
 - The flange seal should be installed above the Viconic layer.
 - The flange seal may be installed beneath or above the finished floor covering and sealed with caulk or adhesive to prevent seepage.
3. Trim Viconic panels flush with shower pans and bathtubs. Do not leave a 1/4" expansion gap, but ensure the Viconic system lays flat on the subfloor.
4. Install a 2.5" (63.5 mm) wide strip of subsurface support under Viconic along the entire length of the shower pan or bathtub.
5. In any wet environment, sealed floor coverings and perimeter sealing are necessary to prevent seepage beneath Viconic and onto the subfloor.
6. Finish the installation by using a combination of molding, coving, or silicone around the perimeter of the room to create a watertight seal.
 - Note: In the event seepage beneath Viconic occurs, gently lift the installed system, clean and dry the subfloor, and re-install the flooring system.



Recommended use of subsurface supports around toilet mount



Viconic toilet drain assembly cross section. Toilet flange seal must be installed above Viconic but may be installed below the floor covering (left) or above the floor covering (right)

Patching and Repairing

Note: Small patches may be made if the Viconic system is damaged such that the top layer is punctured or the system is permanently deformed.

1. Remove the damaged section using a sharp blade:
 - When removing the damaged section, do not cut through cones.
 - The removed section should be a variation of a hexagonal shape, not square or rectangular.
2. Cut a patch section from a scrap piece of Viconic using the damaged section as a template.
 - Both the rigid top layer and cone layer must be fully present in the patch.
 - The patch section must lay flush with the previously installed Viconic panels.
 - Gaps between the patch and installed Viconic panels must be less than 1/16" (1.6 mm).
 - Tape around the full perimeter of the patch using a thin flooring underlayment tape such as Seam Guard 0.005" Underlayment Tape.



Example of a hexagonal shaped patch

Joining Two Viconic Installations

Note: Any installations within a room should be completed without changing orientation of the Fall Defense™ panels. Under rare circumstances a continuous installation may not be possible or feasible, e.g. two flooring crews working concurrently in different areas of a facility or expanding the area covered by Viconic after the initial installation has been completed.

1. In this situation, cuts will need to be made to create an overhanging top layer and exposed cone layer.
2. Cut one panel through both the top layer and cone layer such that it extends 2" (51 mm) over the adjacent panel
3. On one panel, make a cut line 2" (51 mm) from the edge.
4. Flip the panel and cut through the cone layer only, keeping the top layer intact .
5. Remove the strip of cones, resulting in an overhanging top layer.
6. On the adjacent part, mark a cut line 2" (51 mm) from the edge and cut completely through the rigid layer, leaving the cone layer intact.
7. Attached the overhanging top layer and exposed cone layer as you would adjacent panels in the main body of the installation.

FLOOR COVERING INSTALLATION

Note: Compatible floor coverings and adhesive systems should be installed per the manufacturer's guidelines. The Flooring system needs to be adhered to Viconic. Loose lay flooring products are not compatible.

Viconic recommends using flexible, acrylic, water-based flooring adhesives. Both spray and trowel adhesive systems are acceptable:

- The adhesive system needs to be flexible to allow the Viconic system to point-deform and recover.
- Viconic is not compatible with rigid thermosetting adhesives including epoxy adhesives.

Always test adhesive compatibility with a sample piece of Viconic Fall Defense™ to verify bonding will be acceptable

Examples of compatible adhesives include:

- | | | |
|-------------------------|---------------------|-------------|
| • Capital PS100 | • Mannington V-88 | • Shaw 4151 |
| • Mannington Infinity 2 | • Shaw MS Resilient | • Shaw 5000 |
| • Mannington RP-18 | • Shaw S150-95 | • Shaw 5100 |
| • Mannington V-82 | • Shaw 4100 | • Stix 2230 |

FLOOR COVERING INSTALLATION CONT.

1. After Viconic Fall Defense™ is fully installed, prepare the surface for flooring installation. Remove any dust and debris from the Viconic layer to ensure the flooring system adheres to Viconic properly.
2. The chosen flooring adhesive should be installed directly over Viconic as well as any ramped transition pieces.
3. Follow all flooring manufacturer recommendations for flooring installation.
4. Lay out modular flooring systems to minimize seams directly over the ramped transition piece. It is recommended that one tile spans the width of the ramp such that it is adhered to both the Viconic system and the subfloor outside of the room.
 - Care should be taken to minimize the use of small modular flooring pieces in high traffic areas.
5. Chemical welding is the preferred method to seal any seams in flooring materials.

CAUTION: When heat sealing is required, care should be taken during the sealing process to prevent damage to the Viconic system. Viconic Fall Defense™ is a thermoplastic system that may deform and melt at high temperature.



FLOOR COVERING REMOVAL AND REINSTALLATION

Removal of flooring products and re-installation of a new flooring product without damaging the Viconic system is possible.

1. Apply pressure to the Viconic system while simultaneously peeling back the old flooring system.
2. Modular flooring systems can be removed one tile at a time.
3. Sheet goods may need to be cut and removed in strips.
 - Use a hook blade when cutting the flooring system to prevent damage to the Viconic system.
4. Assess the Viconic layer for any damage and make repairs as necessary.
5. Reapply a compatible flooring adhesive as necessary and reinstall the new flooring system following manufacturer guidelines.