

CERAMIN® ICON INSTALLATION INSTRUCTIONS

CERAMIN®

PLEASE READ AND UNDERSTAND ALL SECTIONS IN THIS MANUAL BEFORE YOU BEGIN YOUR INSTALLATION.

For additional information please visit inhaussurfaces.com or call 1.888.255.3412.



CAUTION:

- If using power tools to cut planks, always cut in a well-ventilated area.
- Never use tools designed for other flooring installation systems (eg. seam rollers, tap blocks, etc.).
- Do not directly hit or press Ceramin® Icon with any installation tools such as tap blocks, hammers, mallets or seam rollers as this can cause damage to the product's locking system.
- Never wax, polish or use abrasive cleaners on Ceramin® Icon floors as they may damage the floor's finish beyond repair.
- Ceramin® Icon is not recommended in areas where the floor might experience temperature extremes beyond -40°F (-40°C) or greater than 150°F (65°C).

INTENDED USE

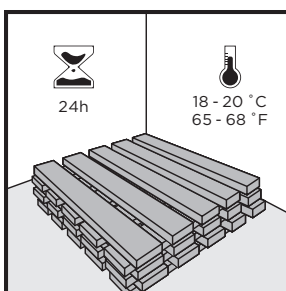
Ceramin® Icon floors are intended for indoor use only and can be installed in any room as long as it does not have in-floor drainage. All Ceramin® Icon floors have been designed to withstand the requirements of the busiest households as well as light commercial applications. Light commercial is defined as environments with light to moderate foot traffic, light point loads and lack of rolling loads. Light commercial areas exclude areas with exposure to chemicals, acids, greases or other such contaminants. If you are unsure of Ceramin's suitability for your application, please contact Inhaus at 1.888.255.3412 before installing the product to confirm warranty coverage.

HANDLING

- Handle Ceramin® Icon with care prior to installation; protect the product's edges, do not drop cartons, etc.
- Always store Ceramin® Icon cartons flat and properly supported on a level surface.
- Never lean cartons against walls and do not store them on saw-horses or similar equipment that does not fully support the full length of the cartons.

PRE-INSTALLATION

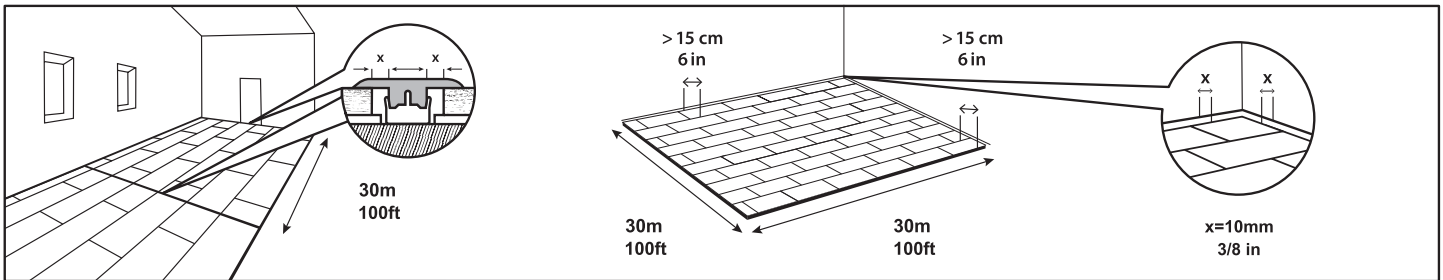
Prior to installing, check all planks for color against samples used in selection to ensure correct product. Further, inspect for defects and transportation damage. Any planks that show damage or defects should not be used.



ACCLIMATION

Cross-stack unopened cartons in the installation area and at room temperature (approx. 18-20C (65-68F)) for minimum 24 hours prior to installation. Do not install cold or frozen planks.

PRE-INSTALLATION CONTINUED



EXPANSION SPACE

It is necessary to leave a 3/8" (10mm) expansion space around the perimeter of the room and all other objects (e.g. toe kicks, plumbing, etc.). The expansion space will be covered by the wall base or quarter round once the floor is installed. If installing in moisture prone areas, please refer to the Recommendations for Wet Area Installation section of this guide.

MAXIMUM ROOM SIZE

Ceramin® Icon floors can be installed in a single room up to 100 linear feet (30m) in length and/or 100 linear feet (30m) in width. Installations in rooms that are over 100 linear feet (30m) in length or width must use transitions.

INSTALLATION LAYOUT

There are no rules when it comes to the direction you choose to lay planks in your installation. Typically, Ceramin® Icon flooring installations are oriented. Parallel to the longest wall in the room, or perpendicular to the main window in the room.

CUTTING PLANKS

Ceramin® Icon flooring planks are designed to be cut using a score and snap method using a standard utility knife. Simply score planks and bend to snap or cut. Always use a straight edge and appropriate safety equipment when scoring and snapping planks. It is important to use good quality, sharp blades in order to minimize damage to the planks. Ceramin® Icon planks can also be cut with guillotine-type flooring cutters and power saws (e.g. circular saw, table saw, miter saw, jigsaw) as well as hand saws.

NOTE: Ceramin® Icon planks should always be cut away from the installation area in order to minimize debris and dust in the installation site. Always wear protective equipment such as safety glasses, a NIOSH-approved dust mask and gloves.

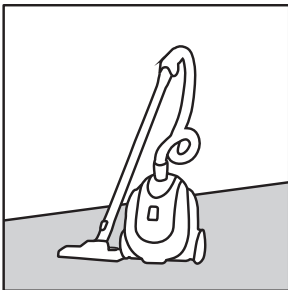
TOOLS AND MATERIALS REQUIRED

- Measuring tape
- Pencil or marker
- Utility knife
- Pull bar
- Handsaw or door jamb saw
- Saw (any of the following – not required if cutting planks using score and snap method):
 - Guillotine-type cutter, Table saw, Miter saw, Circular saw, Jigsaw
- 3/8" (10 mm) spacers
- Safety glasses & dust mask (NIOSH designated)
- Appropriate glue if installing in areas where planks cannot be angled (e.g. under door jambs)
- 100% flexible neutral curing silicone caulking if installing in moisture prone areas
- PE backer rod if installing in moisture prone areas
- A minimum 6 mil (0.2mm) polyethylene vapor barrier (if installing over concrete)

SUBFLOOR PREPARATION

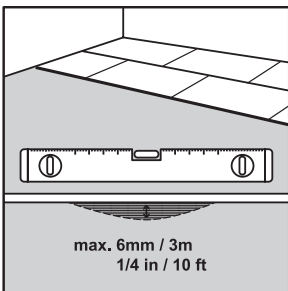
Ceramin® Icon floors can be installed over many types of subfloors as long as they are properly prepared and meet the required criteria outlined below.

CAUTION: If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with applicable local regulations. Do not sand, dry sweep, dry scrape, drill, saw, bead blast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphalt “cutback” adhesive, or other adhesive. These products may contain asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of bodily harm. Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. See “Recommended Work Practices for Removal of Resilient Floor Coverings” (rfci.com) for detailed information and instructions on removing all resilient covering structures.



GENERAL SUBFLOOR PREPARATIONS & PRECAUTIONS

- Subfloors must be clean and free of dirt and debris prior to installation.
- Subfloors must be structurally sound.
- Ceramin® Icon floors can be installed in bathrooms, kitchens, and entryways by following the (Wet Area Recommendations) section of this guide.
- Variations in the subfloor flatness should not exceed 3/16” per 10 ft (6mm per 3m) and 1/8” per 6 ft (3.175mm per 1.9m). Floors must be leveled to meet this specification prior to installation.
- Abrupt height differences of more than 1mm / 10cm must be corrected (for example, nail heads, concrete ridges and other similar small protrusions).
- Carpet is not a suitable underlay for Ceramin® Icon floors. All carpet, carpet pad and carpet tack must be removed prior to installation.
- Care must be taken to ensure that the subfloor meets all local building codes and regulations. If installation is below grade or on grade, foundation walls must meet all local building codes and regulations.
- Crawl spaces must meet all local building codes and regulations. Any moisture or risk of moisture existing in your crawl space should be mitigated prior to installing Ceramin® Icon.



CONCRETE SUBFLOORS

Concrete subfloors must be properly cured prior to installation of Ceramin® Icon.

Always test concrete subfloor for moisture prior to installation. To do so:

- Tape 3' x 3' (91cm x 91cm) pieces of polyethylene vapor barrier to subfloor.
- If condensation appears on the film after 24 hours or concrete appears dark in color, moisture is likely present and a Calcium Chloride test must be performed.

The maximum allowable moisture emission is 8.0 lbs/1000 ft² per 24 hours (3.91 kg/100 m² per 24 hours) ASTM F1869. Alternatively, a Tramex test can be performed in accordance with ASTM F2659. However, recorded values higher than 4.5% require a Calcium Chloride test to verify that the subfloor moisture is appropriate. In Situ probe testing can also be used according to ASTM F2170 and the reading should not exceed 85%.

If moisture emission exceeds these thresholds:

- a vapor barrier should be considered for a successful installation and to prevent the flooring material from being damaged by moisture from the subfloor.
- If using a 6mil (0.2mm) polyethylene vapor barrier:
 - overlap vapor barrier edges by 8” (20cm) and seal with moisture resistant adhesive tape.
 - run vapor barrier 3/4” (2cm) up the wall and install wall base trim over it.

SUBFLOOR PREPARATION CONTINUED

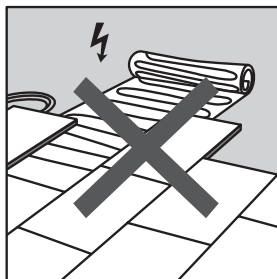
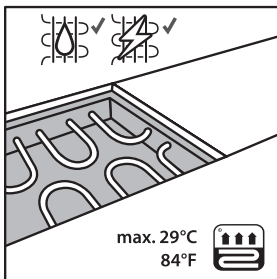
NOTE: Ceramin is waterproof and moisture itself will not affect the products. However, excessive moisture in the subfloor could promote mold, mildew, and other moisture related issues such as trapping of moisture underneath the flooring which may contribute to an unhealthy indoor environment.

WOOD SUBFLOORS

- Wood subfloors must be structurally sound and screwed or nailed to supporting beams.
- Subfloor moisture must be tested prior to installation and should not exceed 12% throughout the installation area.
- Do not install Ceramin® Icon floors over wood subfloors applied directly to concrete.

VINYL (SHEET/TILE), LINOLEUM, CERAMIC TILE

- Existing floor covering must be in good condition with no tears, cracks or chips.
- Floor covering should be well bonded to the subfloor
- Heavily cushioned floor covering (eg. cushion vinyl) and resilient floors that exceed one layer in thickness should be removed. Follow manufacturer's guidelines when uninstalling resilient floor coverings. Wear personal protection equipment (dust mask, gloves, glasses, etc.).
- If installing over ceramic tile, any abrupt unevenness of more than 1 mm / 10 cm (eg. caused by large grout areas) should be made smooth by applying a leveling compound.



WATER/HYDRONIC IN-FLOOR HEAT SYSTEMS

Ceramin® Icon can be installed over water/hydronic in-floor heat systems but floor temperature should never exceed 84°F (29°C). In-floor heat systems must be operating for a minimum of 3 weeks prior to installation of Ceramin® Icon floors. Follow procedures as outlined in the Concrete Subfloors section of this guide.

Do not install Ceramin® Icon directly over electric wires or mats.

ROOM PREPARATION

WALL BASE /TRIM

- Removal of existing wall base/trim is optional. If you decide not to remove your wall base then you will have to install quarter-round moldings after installation of your Ceramin® Icon floor is complete.
- Wall base or trim will need to be installed once the flooring installation is complete to cover the expansion space around the perimeter of the room.
- Always nail/adhere wall base and trim to the wall. Never nail/adhere it to the flooring.

WALL IRREGULARITIES

Walls are not always perfectly straight. Ceramin® Icon floors will need to be cut so as to fit within irregularities of your walls. To do so:

1. Install a complete first row of Ceramin® Icon floors (following the Installation Procedures below) and ensure that all long edges of the Ceramin® Icon flooring are aligned flush with one other.
2. Slide the whole row against the wall; you will now notice any wall irregularities (i.e. areas where the wall is not straight).
3. Trace the contour of the wall onto the row of Ceramin® Icon flooring with a pencil or marker. Once traced, uninstall the planks carefully so as to not damage the locking system and cut along the traced line (see Plank Removal section below).
4. Re-install the planks leaving the necessary 3/8" (10mm) expansion space between them and your wall.

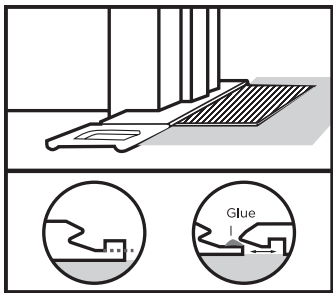
ROOM PREPARATION

CABINETS & ISLANDS

- Always install cabinets and islands prior to installing Ceramin® Icon floors.
- If cabinets need to be installed after Ceramin® Icon is installed they should be mounted to the wall and in a manner that does not pin Ceramin® Icon and prevent it from expanding and contracting.

DOORS & DOOR JAMBS

Ceramin® Icon floors should be installed under door jambs. As such door jambs will need to be undercut accordingly. To do so:



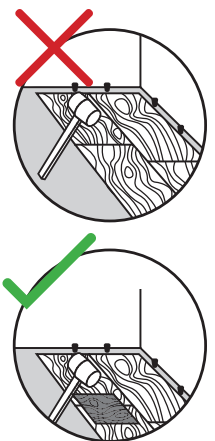
- Use a Ceramin® Icon flooring off-cut to support your saw blade at the correct height for undercutting.
- Check door clearances and make any necessary height adjustments before installing Ceramin® Icon floors.
- Make sure to leave the 3/8" (10mm) expansion spacing from the wall under the door jamb.

TIP: If possible, it is often easiest to start at the door of the room so that the first plank can be easily slid under the door jamb.

- In some cases you may have to modify a plank's locking system as a door jamb may prevent you from angling it into place. To do so, safely remove the vertical section of the groove. This will allow you to slide planks together horizontally. Apply a small amount of adhesive suitable for gluing polypropylene into the plank's groove and slide the plank into place.

INSTALLATION PROCEDURE

- It is recommended that planks be mixed from at least three cartons to achieve the most natural and varied appearance. It is important to mix planks from multiple cartons and review the installation often to ensure the most random appearance.
- Inspect every plank for damage and visual defects before installing it. DO NOT INSTALL damaged or defective planks.
- Never force planks together using excessive force. If planks are not fitting together easily check joint alignment and inspect for debris in the joints.
- **Ceramin® Icon planks should install with thumb pressure. If the use of a mallet is desired for connecting the short ends of the planks, do not tap directly onto planks you are installing. Place a small scrap piece on top of the joint you are connecting and tap it to protect the planks you are installing. Only a small amount of force is required.**
- The first and last row of the installation should be wider than 3.5" (9cm). To ensure this will be the case, prior to installation:
- Measure the width of the room and divide it by the width of the planks you are installing.
- If the remainder is less than 3.5" (9cm) cut 3.5" (9cm) from the width of the first row. If this is not possible, simply ensure that both edge planks are as even in width as possible.
- The first and last plank in a row should be a minimum of 16" (40cm) long.
- Stagger the planks from row to row by a minimum of 16" (40cm).
- Prepare the subfloor and room as per the corresponding instructions found in this guide.
- Use spacers to maintain the 3/8" (10mm) expansion space between the first row and the wall.
- Select a starting corner of the room and work from left to right.

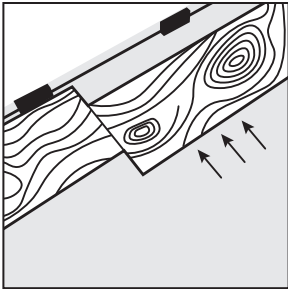


INSTALLATION PROCEDURE CONTINUED

INSTALLING THE FIRST ROW

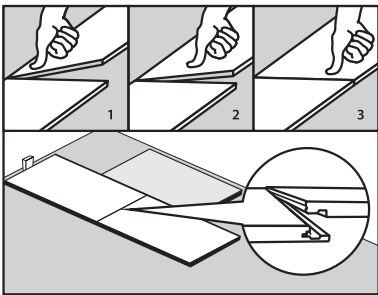
You can connect planks in your first rows in two ways:

Method #1:

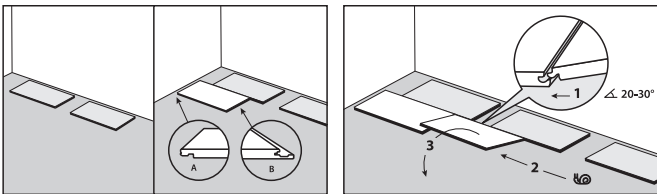


1. Lay the first plank with the long edge tongue facing the wall.
2. Lay the second plank flat on the floor and adjacent to the first plank with the short edge joint aligned with the groove of the first plank.
3. Slide the planks perpendicular to each other engaging the short edge locking system.
4. Continue in this manner until the first row is complete, cutting the last plank to complete the row.
5. Use the remainder of the last plank of the first row to start the second row provided that it is a minimum of 16" (40cm) long.

Method #2:



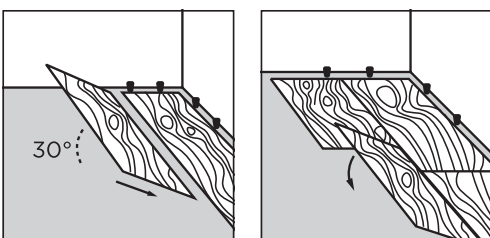
1. Lay the first plank with the long edge tongue facing the wall.
2. Lay the second plank flat on the floor with the short edge joint aligned directly over the groove of the first plank.
3. Apply downward force with thumbs to connect the two planks together. If more force is required, place a small scrap piece on top of the joint you are connecting and tap it lightly using a mallet. Do not tap directly onto planks you are installing.
4. Continue in this manner until the first row is complete. You will have to cut the last plank to complete the row.
5. Use the remainder of the last plank of the first row to start the second row provided that it is a minimum of 16" (40cm) long.



It's important that the long edges of the first row be perfectly straight and aligned in order to facilitate ease of installation of all other rows.

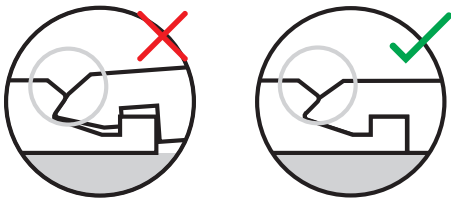
TIP: You can use an extra plank as an alignment tool. Once you install planks of your first row together, temporarily install an extra plank that spans both first row planks you want to align. This extra plank will automatically align the first row plank's long edges. Do this down the length of your first row. The alignment planks are removed prior to continuing with your installation.

ALL OTHER ROWS



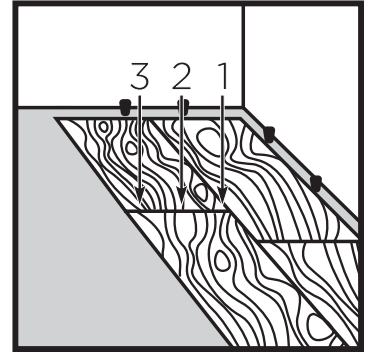
1. To install the first plank of the second row, place its long edge tongue into the previous row's long edge groove.
2. Lift the long edge groove side only to approximately a 30° angle so the edge you're holding is lifted off the floor, but the opposing long edge is resting in the previous row's groove.
3. Lower the plank to lock it into the previous row (a slight up/down, oscillating movement together with some force in the direction of the previous row may help to lower the plank).

INSTALLATION PROCEDURE CONTINUED



TIP: Inspect the width of the long side bevel for uniformity. If the bevel is not even on both sides the connection is not correct.

4. To install the remaining planks, first install the long edge of the second plank to the previous row.
5. Before lowering the plank, make sure its short end tongue overlaps with the previous plank's short end groove.
6. Lower the plank slowly (a short oscillating or up-and-down motion may help to seat the plank into the proper position).
7. Apply pressure to the plank's short edge starting close to the previous row and then engaging towards yourself across the width so as to activate the MegaLoc locking mechanism.



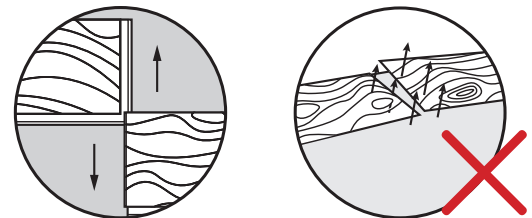
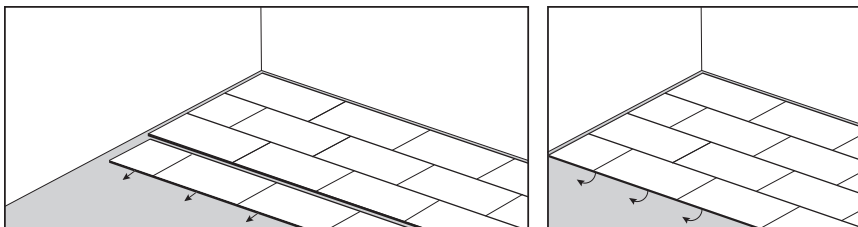
- i. **Thumb pressure should lock the plank in place but if more pressure is required, light tapping with a mallet is acceptable. Do not tap directly onto the installed planks. Place a scrap piece on top of the joint you are working on to tap on.**
- ii. Inspect every joint to ensure it is properly locked. Height differences from plank to plank at the joints is a sign of joints not being properly locked or damaged

NOTE: Planks are designed to interlock easily and with a small amount of pressure; if this is not the case, inspect the connection system for damage or debris.

8. Continue in this manner until your installation is complete.
9. Remove all spacers.
10. Install quarter rounds, base boards and all other moldings.
11. Clean the floor and inspect it to ensure all joints are locked in place.

PLANK REMOVAL

- To remove planks, lift the long edge of the last installed row all at once to approximately 30 degrees in order to disconnect the long edge installation mechanism.
- Once this row has been removed, disconnect each individual plank from one another by starting at the right-most plank and sliding it horizontally to disengage it from the previous plank.
- If you plan to re-install them, care should be taken so as not to damage the installation mechanism.



STAIR INSTALLATION

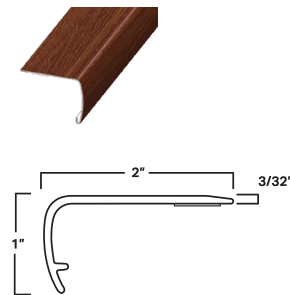
STAIR NOSING

- Stair Nosing is used on landings or stairs. Per the guidelines below, you will need to fasten Ceramin® Icon planks to your stair treads and risers using nails and adhesive. Please note that this applies only to the actual stair steps; flooring installed on landings or at the top of stairs should not be fastened to your subfloor.

IMPORTANT: Stair Nosing should always be installed with both nails and adhesive so as to ensure a safe and secure fit.

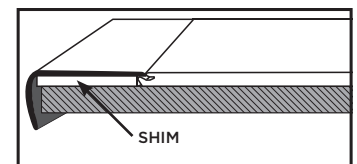
- If your stair treads have existing bull-nosing, remove the bull nosing so as to have a 90-degree angle between tread and riser.
NOTE: before removing the bullnose, ensure the depth of the stair(s) will still meet local and/or national building code after the bullnose is removed.
- Using a scraper, remove the foam pad from the underside of the Ceramin® Icon plank.
- If installing Ceramin® Icon flooring on the riser, begin at the bottom riser; measure and cut a piece of Ceramin® Icon flooring to fit flush with the subfloor.
- NOTE: using Ceramin® Icon planks on stair risers is a style decision and optional. Other finishing options are acceptable.**
- Glue the piece of flooring to the riser by applying a 3" serpentine bead of construction adhesive to the back of flooring.
- Press the plank in place.
- Drill pilot holes on plank for 6d finishing nails and nail plank to riser.
- Measure and cut piece of Ceramin® Icon flooring to width of your stair-tread (depending on the depth of your stairs you may need to use more than one piece of flooring).
- Install the Ceramin® Icon flooring by gluing it to the stair-tread in the same manner as you did the riser.
- Drill pilot holes on plank for 6d finishing nails and nail plank to tread.
- Adhere stair nose molding to stair-tread with construction adhesive (apply 3/16" bead of adhesive in a 3" repeating serpentine pattern to the back of the stair nose).
- Anchor stair nose molding with 6d finishing nails.
- Always ensure you use mechanical (nail) and adhesive (glue) fasteners to secure the stair nose molding.

Stairnose molding

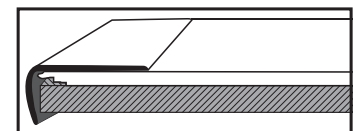


STAIRNOSE CAN BE INSTALLED IN
FLUSH OR OVERLAP MANNER

FLUSH



OVERLAP



NOTE: If installing on a landing, or at top of stairs (i.e. not on the actual stair steps) install flooring as per the normal procedures. Do not glue Ceramin® Icon planks to subfloor on landings and or at top of stairs.

TRANSITION MOLDINGS

- Transitions Moldings can be attached with track (except for quarter round), 6d finishing nails or construction adhesive (eg. Liquid Nails, PL 400). If using adhesive, apply weight to moldings while it is curing to ensure proper adhesion. Be careful not to use too much adhesive as it could penetrate the expansion space or seep onto the flooring surface.
- Never fasten moldings directly to the Ceramin® Icon flooring.
- Ensure that you leave at least 3/8" (10mm) expansion space between moldings, track (if applicable) and Ceramin® Icon floors.
- If installing over radiant heated floors, always use construction adhesive to attach moldings.
- Always pre-drill moldings with appropriate size drill bit to avoid cracking or splitting.

A. TRACK

- The track system can be used to install T-moldings, reducers and square nose moldings. Simply screw or nail the track to the sub-floor and snap the molding in place.

B. QUARTER ROUND

- Quarter rounds are used to cover the space between the floor and existing baseboards. Nail quarter rounds to the wall, not the floor. Do not force the trim against the floor.

C. END CAP

- End Cap moldings provide a transition between Ceramin® Icon floors and a vertical surface such as toe-kicks and sliding glass doors. These moldings can also be used to transition between carpets and tile.

D. REDUCER

- Reducers are used to transition from Ceramin® Icon floors to surfaces of a lesser height such as vinyl floors.

E. T-MOLDING

- T-moldings are used in areas where the room is larger than 100' (30m) in board length or wider than 100' (30m) in board width. T-moldings can also be used where the flooring continues through a doorway or passageway into another room. T-moldings are necessary when installing two connecting rooms where the floors are being installed in different directions.

INSTALLING MOLDINGS

If installing with track:

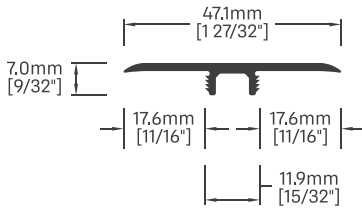
1. Install track first
2. Install Ceramin® Icon floor up to track leaving a 3/8" (10mm) expansion space between the Ceramin® Icon floor and the track.
3. Install the molding by inserting it into the track.

If installing without track:

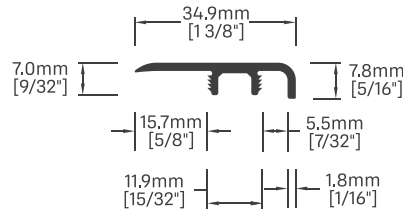
1. Measure so as to ensure that a 3/8" (10mm) space will be left between the Ceramin® Icon floor and the vertical part of the molding (both sides of the T-molding if applicable).
2. Install the Ceramin® Icon floors up to the measured point.
3. Install the molding.

MOLDINGS PROFILES

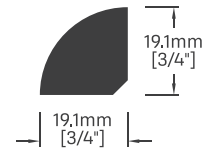
T-MOLDING



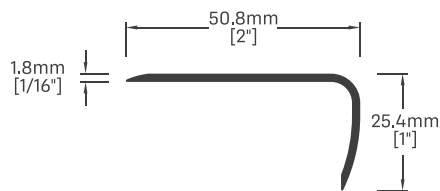
END CAP



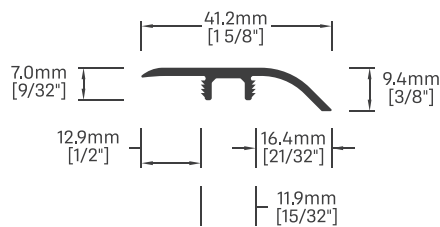
QUARTER ROUND



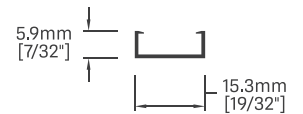
STAIRNOSE



REDUCER



TRACK

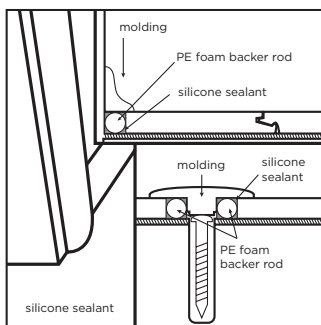


RECOMMENDATIONS FOR WET AREA INSTALLATION

When installing in moisture prone areas (eg. kitchens, bathrooms, entryways), seal all expansion spaces with compressible PE foam backer rod and 100% neutral cure flexible silicone caulk as described in the following procedure.

NOTE: Ceramin® Icon is not a water barrier. When excessive moisture accumulates in buildings or on building materials, mold and/or mildew growth can occur. Care should be taken to address any moisture related issues prior to installing Ceramin® Icon.

NOTE: Do not use acrylic based caulks as they are rigid and will prevent the floor from expanding and contracting. Use only neutral curing 100% flexible silicone caulk. Do not use acetoxysilicone caulks as they may damage Ceramin® Icon.



PROCEDURE:

1. Insert 1/2" (12mm) compressible PE foam backer rod into room perimeter expansion space and cover completely with flexible silicone caulk.
2. Insert 3/8" (10mm) compressible PE foam backer rod at transitions and cover completely with flexible silicone caulk.
3. Use 100% flexible neutral cure silicone caulking around door frames and other fixed objects (eg. plumbing).
4. Install baseboards, quarter-rounds or other applicable moldings and immediately wipe up excess caulk.
5. Ensure baseboards or quarter-rounds are attached to walls, not floors.

Tip: for ease of installation use PE Foam backer with a diameter closest to the floor's overall thickness.