INSTALLING VINYL FLOORING

Congratulations on choosing to install vinyl as your new flooring! Resilient vinyl flooring is one of the most popular floor coverings in today's homes. With a wide variety of colors and styles, you are sure to find a pattern or design to compliment your home or office.

When it comes to installing vinyl flooring you have a number of different options. This guide will help you determine what is right for your floor to ensure you have a successful installation.

> ✔ **TIP:** If reading online, click on any item in this contents list or any grey text in the document to jump to a specific section.

INSTALLATION OPTIONS

Vinyl flooring has come a long way in the last couple decades. Today, you have a number of different options when it comes to installing vinyl in your home or office. In this section, we'll be going over the basic installation options including:

- **Vinyl vs. Linoleum Flooring**
- **Types of Vinyl**
- **Vinyl Composition**
- **Installation Areas**
- **Installation Methods**
- **Radiant Heating Considerations**

Vinyl vs. Linoleum Flooring

Many people (flooring sales professionals included) often confuse vinyl and linoleum. While both floor coverings look and are installed similarly, the two materials are very different in their compositional make up. Vinyl is a synthetic, petroleum-based product while linoleum is made from all-natural materials.

Types of Vinyl

The first step in your flooring project is to decide what type of vinyl you want to install:

- **Sheet Vinyl** – Sheet vinyl is most often sold in 6 foot, 9 foot and 12 foot rolls (other roll lengths may be available). Sheet vinyl is sold with a variety of different backing and can be secured to the subfloor with a quality flooring adhesive or as a floating floor (for certain types of backings only). While sometimes more difficult to work with, sheet vinyl floors have fewer seams and will generally last longer than vinyl tile or planks.

- **Vinyl Tiles** – Vinyl tile is usually sold in 6 inch, 9 inch, 12 inch and 18 inch tiles (other sizes may be available). Vinyl tiles are either glued or glueless (self-stick). Vinyl tiles are generally easier to install but do not last as long as sheet vinyl. Take care when choosing vinyl tiles for bathrooms or entryways. Not all vinyl tiles can be used in areas with prolonged exposure to moisture.

- **Vinyl Planks or Strips** – Plank or strip shapes used to replicate wood floors. This type of vinyl is sold in a variety of widths and lengths as well as parquet squares. Installation methods are similar to vinyl tile.

> 📋 **NOTE:** Vinyl tiles and planks can take more time to install but are easier to transport. Sheet vinyl can be difficult to transport and install because it is bulky and heavy.

Vinyl Composition

Vinyl flooring is manufactured one of two ways:

- **Layered Composite** – Layer composite vinyl (also called rotogravure or rotovinyl) is the most common type of vinyl on the market. First, a core of foam or vinyl is laid on top of a backing layer. A printed pattern is then laid over the core and covered with a clear, durable wear layer. All the layers are fused together to form a solid sheet of vinyl. Layered composite comes in a wide variety of colors and patterns. Quality varies greatly with this type of vinyl. Higher-quality layered composite vinyls generally have thicker cores and wear layers.

- **Inlaid** – Inlaid vinyl is the most durable type of vinyl. Inlaid vinyl is named such because small vinyl particles are inserted (or inlaid) on a printed backing layer. These particles provide the color and pattern on the vinyl. The particles are then covered with a top surface wear layer for durability.

> ✔ **TIP:** Inlaid sheet vinyl is generally more expensive, has a longer life-span than layered composite vinyl and is only available in 6 foot rolls.

Wear Layers

Wear layers can be made from a variety of materials. Generally, the thicker the wear layer the longer the vinyl will last. Always choose a vinyl with a wear layer that can handle the amount of traffic in your installation area.

Common wear layer materials include:

- **No-wax vinyl** – An entry-level material that resists scrapes, scuffs and mild stains. No wax floors require regular cleaning and the occasional polishing to maintain the "new" look of the floor.

- **Urethane (PVC)** – A mid-level material that resists scrapes and scuffs and has better stain resistance than no-wax floors. Urethane floors will not need as much maintenance to maintain the "new" look of the floor.

- **Enhanced Urethane** – A very durable material that resists scrapes and scuffs and will not stain from normal household items such as mustard, wine, iodine, etc. These floors are also more resistant to dirt and do not need as much intensive cleaning.

- **Aluminum Oxide** – A durable material that is most often found on pre-finished wood or bamboo flooring. This type of finish resists scrapes, scuffs, and stains.

Backing Types

Vinyl is manufactured with a variety of backings. Felt is the most common and makes up 90% of all vinyl backings. Newer fiberglass backings are becoming more popular as they provide more cushioning and can be installed in a wider variety of areas. Additionally, there are new stretchable backings on the market that expand and contract with temperature and moisture changes.

Other Considerations

In addition to the type of vinyl, wear layer and backing, you should also take the following things into consideration when choosing your vinyl:

- **Gloss Level** – Vinyl comes in a variety of gloss levels from satin to semi-gloss to gloss. Generally, lower gloss patterned vinyl (like satin finishes) will wear better over time.

- **Pattern Repeat** – The pattern repeat is the width of the pattern on the vinyl. Take this width into consideration when determining the layout for your installation area and the placement of seams.

- **Pattern Match** – Pattern matching is aligning the pattern on the vinyl during installation so that patterns repeat naturally across seams for a cohesive looking floor. Generally, tile-like vinyl patterns or patterns with defined lines are easier to match and hide seams.

Installation Areas

One of the reasons vinyl is popular is because it can be installed in a number of different areas in a home or office. Vinyl is approved for all grade levels (at, above or below) and is a good choice for wet areas such as kitchens, bathrooms or laundry areas.

Vinyl can be installed over the following subfloors:

- **Concrete** – Concrete subfloors must be smooth, clean, level, flat and dry. You must perform a polyethylene, calcium chloride and/or pH alkalinity test prior to installation. Excessive moisture can interfere with the vinyl adhesive.

- **Wood** – Wood subfloors must be smooth, clean, level, flat and dry. Some wood subfloors required an additional plywood underlayment installed above the subfloor for stability.
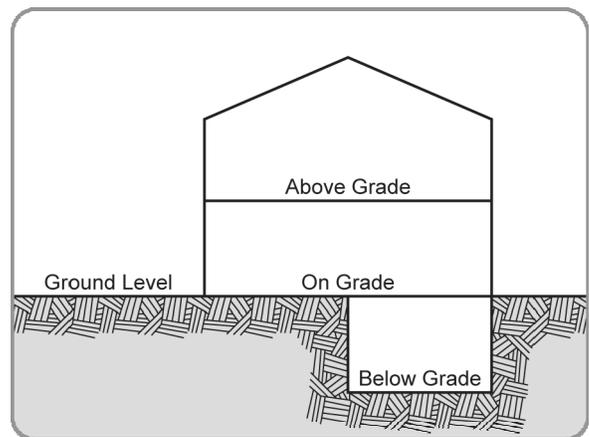
- **Existing Flooring** – Existing linoleum or vinyl must be in good condition and fully adhered to the subfloor. If your existing floor is not completely level and flat, you should consider installing a plywood underlayment to support the vinyl. You must remove any damaged or loose flooring prior to installation.

> ✔ **TIP:** Be aware of asbestos if you are removing existing flooring before you install your new vinyl. Some older flooring products contain asbestos which can contaminate your home or office if removed. If you find asbestos in your existing flooring, do not remove it. Instead install a suitable plywood underlayment before installing your vinyl.

Installation Methods

Now that you've decided on the type of vinyl you're going to install and you've identified your subfloor, it's time to determine how you will install your vinyl. Installation methods vary depending on the type of vinyl you are installing.

Felt backed sheet vinyl can be installed:

- **Full Spread Adhesive** – An adhesive is applied to the whole floor beneath the vinyl.
- **Perimeter Adhesive** – An adhesive is only applied to the perimeter of the floor and at any seams.

Fiberglass backed sheet vinyl can be installed:

- **Loose Lay** – Sheets of vinyl are laid but not secured to the subfloor.
- **Modified Loose Lay** – Sheets of vinyl are laid on the subfloor and only secured at strategic points (such as under appliances or in high traffic areas).
- **Full Spread Adhesive** – An adhesive is applied to the whole floor beneath the vinyl.

Vinyl tiles, planks, or strips can be installed:

- **Peel-and-stick** – Adhesive is applied when the tiles are manufactured. During installation, you remove the protective backing and secure to the subfloor.
- **Tab or Spray Adhesive** – You apply glue tabs or a spray adhesive to the bottom of each tile and secure to the subfloor.
- **Full Spread Adhesive** – An adhesive is applied to the whole floor beneath the vinyl.

Choosing Your Adhesive

It is best to use the same brand adhesive as your flooring. This ensures that the adhesive will work properly with the flooring. If you want to use a different brand adhesive, ALWAYS check with your flooring manufacturer or retailer to ensure the flooring is compatible with that adhesive.

There are a number of quality adhesives that work for a variety of flooring products. Always make sure your adhesive is specially designed for use with the type of backing on the vinyl you are installing. A premium felt backed vinyl adhesive will not work for a homogenous sheet vinyl or fiber product.

Radiant Heating Considerations

Many types of vinyl flooring can be installed over radiant heating systems. However, it is always a good idea to check with your flooring manufacturer to ensure your vinyl is designed for this type of heating. Some vinyl products can become discolored or detach from the floor as it heats. Always follow your manufacturer's specific guidelines for floor temperatures and care.

PLANNING YOUR INSTALLATION

Now that you've got the basics about down, it's time to start planning your vinyl installation. In this section, you will:

- **Determine Your Layout**
- **Allow for Expansion**
- **Factor in Waste**
- **Estimate Installation Time**
- **Choose an Underlayment**
- **Install Safely**

Determine Your Layout

Vinyl tiles provide you with a variety of options when it comes to determining your floor layout. You can choose to install vinyl tile that is square with the room or diagonal. Or you can mix and match vinyl tile sizes, colors and materials to create any number of patterns and designs. If you are using different types of vinyl, sketch out your design or pattern so that you can refer to it on installation day.

If you are installing sheet vinyl, your layout options are more limited as you must work with the dimensions of the sheet. To make your sheet vinyl installation easier, you should create a pattern of your floor and any objects you must work around.

Allow for Expansion

Some vinyl goes through minor expansion and contraction once installed. Your flooring may expand slightly width-wise and shrink slightly length-wise. Always follow your specific manufacturer's recommendations for expansion spacing and seam gaps.

In most cases, the vinyl floors should never fit flush with walls or over time the flooring will start to bubble or fold. However, vinyl can be installed flush with bathtubs or showers as you may need to caulk these areas to prevent water from penetrating your subfloor.

> ✔ **TIP:** Some professionals install wall base to cover the edges of the vinyl near walls, cabinets or other obstructions. While other professionals install vinyl flush with cabinets, doorjambs, thresholds, bathtubs and other obstructions. They then use flexible silicone caulk to seal these edges. Always follow your flooring manufacturer's recommendations during your installation as some vinyl needs more expansion/contraction room.

Factor in Waste

Waste is a part of any flooring project. Waste can be due to:

- Odd shapes in the room that you must work around

- Installation mistakes

- Type of vinyl installation (sheet vs. tiles or planks)

Non-professional installers should account for a waste factor of around 10%. Plan to order a roll size to match the length of the room with as few seams as possible. (For example, for a 10x15 room you'd order a 12x15 roll of vinyl.) You can also use the Advanced Estimator tool on FindAnyFloor.com to help you determine how much vinyl you'll need to complete your flooring project.

Be sure to factor waste into your original purchase. This is especially important when purchasing vinyl tiles or planks. Retailers continually add and discontinue the types of products they offer. There is no guarantee that your flooring retailer will carry your exact vinyl in the future. And remember, **you should always end up with extra vinyl at the end of your project.** Over the life of the floor you may need to replace sections that get damaged from use.

> **NOTE:** Over time, you may get tears or holes in your sheet vinyl. It may not be practical to replace that section even if you have left over sheet vinyl. Always consult a flooring professional before you begin replacing sections of your sheet vinyl floor.

Estimate Installation Time

There is no hard and fast rule for installing or completing any vinyl flooring project. Generally, sheet vinyl or vinyl tiles should take one to two days to install.

Other factors that affect installation time vary widely and include:

- **Experience level:** If this is your first time installing sheet vinyl or vinyl tiles, it may take you longer than someone who has already done one or more installations.

- **Room complexity:** Simple rooms or patterns can take less time than large areas or complex designs.

- **Assistance available:** If you are working with sheet vinyl, you'll probably need at least one person to help you. However, having too much assistance may impede your progress.

- **Amount of planning:** Usually, the more planning you do, the less time your vinyl project will take.

Choose an Underlayment

The Resilient Floor Covering Institute (RFCI) approves American Plywood Association (APA) underlayment grade plywood, hardboard or Type 1 lauan plywood as acceptable underlayments for vinyl flooring. Always follow your flooring manufacturer's guidelines when choosing an underlayment. Some types of underlayments may void your warranty.

APA Plywood

APA plywood is used as an underlayment for subfloors that are not completely smooth, flat, level and dry. APA plywood underlayments are also recommended to help support the new vinyl above existing floors. APA plywood should be ¼", 3/8" or ½" and underlayment grade, meaning it has a fully sanded face and has an exterior and/or exposure 1 classification.

> ✔ **TIP:** If you add a plywood underlayment, the floor in your installation area may be higher than surrounding rooms.

Hardboard

Hardboard is a thinner, smoother version of plywood. If you want to use hardboard as your underlayment, it must be class 4, 0.215 inch, service-grade hardboard. All other hardboards are not dimensionally stable enough to support a vinyl floor over time. Additionally, not all vinyl manufacturers recommend installing vinyl over hardboard. Always follow your flooring manufacturer's guidelines when choosing an underlayment so you do not void the warranty.

Lauan and Other Types of Plywood

Plywood comes in a number of different grades. Many manufacturers allow Type 1 ¼" lauan plywood to be used as an underlayment for vinyl floors. However, this type of lauan board is extremely difficult to find.

You should NOT use other types of lauan board, particle board, OSB board or lesser quality plywoods as underlayments for your vinyl floor as they are not dimensionally stable enough to support the linoleum floor over time. These products can have hollow spots between the exterior layers which will cause squishy or "soft" spots in your vinyl floor. Additionally, these products could delaminate which could cause large bubbles in your floor. If delamination occurs, you will have to replace both the underlayment and the vinyl. These product may also contain water soluble chemicals, dyes or inks that can be transferred to and stain your vinyl.

Install Safely

Follow these guidelines to ensure a safe working environment.

- Read and follow all manufacturer guidelines when installing your vinyl.

- Wear the proper clothing and shoes (work boots or tennis shoes).

- Wear OSHA approved safety goggles and hearing protection.

- Wear other personal protective equipment such as shin guards, knee pads, respirators and/or gloves, when necessary.

- Do not work under the influence of alcohol, drugs or other medications which can impair your decision making ability.

- Keep your work area clear from debris and clutter. Not only are these tripping hazards, but these items could damage your vinyl.

- Make sure the room has proper lighting and ventilation.

- Ensure the electrical power to the area you're working in can support all the electric tools you are using.

- Know where your first aid kit is located.

- Use all machinery and tools as intended by the manufacturer with all safety guards in place.

PREPARING FOR INSTALLATION

Installation day is almost here. Before you purchase or have your vinyl delivered, there are a few things you need to do first including:

- **Moisture Testing Your Concrete Subfloor**
- **Inspecting and Leveling Your Subfloor**
- **Removing Molding and Doors**
- **Undercutting Door Casings**
- **Installing the Underlayment**

Moisture Testing Your Concrete Subfloor

Moisture testing is an extremely important part of the installation process if your vinyl will be installed directly on a concrete slab (especially new concrete slabs). Wet concrete can cause issues with your adhesive as well as seep up and stain your vinyl floor. There are three types of moisture tests you should perform on your concrete slab.

Polyethylene Moisture Test

The Polyethylene Moisture test is an easy way to perform a moisture test on a slab that is at least 30 days old. Duct tape several 12 inch by 12 inch pieces of polyethylene in various places to the concrete slab for 24-48 hours. A clear garbage bag or clear plastic sheeting works well. When taping, be sure the squares are taped all the way around so no air can escape.

If after 24 to 48 hours any condensation forms on the plastic or if the concrete darkens, you must perform a Calcium Chloride and pH Alkalinity test. These results indicate that your subfloor may contain too much moisture to safely install your vinyl flooring. If neither of these things happens, the concrete subfloor is ready for your vinyl flooring.

> **NOTE:** Even if you have a successful polyethylene test, you should consider a Calcium Chloride and pH Alkalinity test to ensure it is safe to install your new vinyl floor.

Calcium Chloride and pH Alkalinity Tests

Calcium Chloride and pH Alkalinity tests are far more accurate than the polyethylene test. Supplies can be purchased online or at stores that specialize in concrete tools and/or flooring. These tests measure the moisture emissions and the alkalinity of the concrete slab. Perform each test according to the manufacturer's instructions. Refer to your flooring manufacturer's guidelines for acceptable ranges.

If either of these tests exceeds the recommended limits, you should seal your concrete subfloor with an appropriate sealer as recommended by your vinyl manufacturer. Check with the sealer manufacturer to be sure the concrete sealer will not interfere with the adhesive you'll be using during your vinyl installation. Sealers can be purchased at your local flooring retailer or any home improvement store. Once the sealer has cured, you should re-test to ensure moisture levels are within acceptable limits.

If after sealing your concrete you are still having moisture issues, talk to a flooring professional for additional guidelines and testing procedures.

Inspecting and Leveling Your Subfloor

A flat, or level, subfloor is one that is free from any dips and valleys, no matter how small. Any bumps, seams, dirt or raised nail heads will be visible under the vinyl. Whatever the cause, it's your job to fix or remove the imperfections so the floor is completely level. Before you begin finding your imperfections, make sure the floor is scraped and swept clean of all drywall mud, paint splatters and any other debris. Be sure to sink nails below the subfloor so that you can fill them.

Finding the Imperfections

Before you begin leveling, you'll need to find the imperfections. Many manufacturers recommend that your subfloor not have a variance of more than 3/16" over a 10' section of subfloor. An easy way to find imperfections in your subfloor for both concrete and wood subfloors is using an 8-10' piece of straight lumber.

Start at one end of the room and lay the straightest side of the lumber down on the subfloor. From ground level, look to see if there are any gaps between the lumber and the subfloor. Mark those with a pencil on the subfloor.

Next touch each end of the lumber. Does it rock or tip to one side? If there is any movement, find the high spot that is causing the movement and mark it with a pencil. Make your way methodically across the room with the lumber, observing and marking the imperfections in the subfloor.

You can also use a flashlight to help you find imperfections in the subfloor. Lay your straight piece of lumber on the subfloor and move the flashlight from one end of the lumber to the other near the floor. If light filters either below or above the lumber, you've found a high or low spot.

Leveling Low Spots in Concrete Subfloors

If you found low spots, cracks, nail holes or gaps in your concrete subfloor, use embossing leveler or a self-leveling compound (floor patch) to fix them. Embossing leveler is applied with a straight edge finishing trowel above the existing subfloor. It can be used to patch certain areas or across the whole floor as needed.

Self-leveling compounds are like quick-set concrete. DO NOT use regular cement products as they do not set and cure fast enough. Only use self-leveling compounds that indicate they have quick drying times and are made specifically for leveling floors. These can be purchased at many flooring or home improvement stores.

> **NOTE:** Using patching products that are not specifically recommended for the flooring may void the manufacturer's warranty. Play it safe and always choose a product that is recommended by your flooring manufacturer even if it is more expensive than other products.

1. Prepare the floor patch in a bucket according to the manufacturer's instructions. Make sure you are outside or in an area where it won't matter if some of the compound splashes out of the bucket. Always follow the manufacturer's instructions when mixing the compound. Some recommend adding the water after the compound is added while others recommend adding water before.

   > **NOTE:** Because these products set so quickly, do not prepare the compound until you are ready to begin using the product on your floor.

   > **TIP:** Mix only small batches of compound at a time so it does not dry in the bucket or on tools before it is all used up.

2. Mix the compound using a paddle-type drill attachment (available from most home improvement stores). The mixture should be similar in consistency to a milkshake.

3. Place your lumber at the edge of the place you will be leveling. Pour some of the leveling compound on the subfloor. Use a trowel to fill in all the low areas. Quickly move the lumber across the area you just leveled to ensure it is flat. If it is not, add more compound. If the area is too high, scrape away compound.

> ✔ **TIP:** This part of the process works best with two people – one person working with the compound and one person working with the straight lumber.

4. Work quickly across the floor filling in all the low spots. Use the lumber to ensure each spot is flat. If you run out of compound, clean up the bucket and tools then mix another small batch.

5. Once all the low spots are filled, take your lumber and re-assess all the areas you just leveled. If you still find low areas, mix another batch of compound and add more to the top of the dried compound.

6. Wait for the compound to dry and cure completely before installing your vinyl.

Leveling High Spots in Concrete Subfloors

Use a grinder or sander to level high spots in your concrete subfloor. If you don't own one, these machines can be rented from many equipment rental stores. When grinding, always wear a respirator as concrete produces a lot of dust. You can also try wetting the slab before you begin to help control dust. If you are working on an addition to a home, make sure everything is sealed tightly with plastic and taped completely shut. Cover and tape all AC intake vents so that concrete particles are not distributed throughout your home via the ventilation system.

> ✔ **TIP:** Concrete dust will get everywhere (including closed cupboards or drawers) because the particles are so fine. Be sure to tape everything up tightly! Placing a box fan in a window so that the air from inside the home is pulled outward can also help disperse the concrete dust.

Leveling a Wood Subfloor

Before you begin any leveling, walk the floor and screw down any loose or squeaky places with coarse-headed screws. You should also consider screwing down sections that are in high-traffic areas for reinforcement. Once everything is secured, you're ready to move onto leveling the subfloor.

Leveling a wood subfloor can prove to be more challenging than concrete subfloors, especially if the wood subfloor is not flat because of high spots over joists (also called crowned joists). If the high spot over a crowned joist is relatively low, try sanding down the area above the joist enough to make it flat. If the crowned joist is high and there are exceptionally low areas between joists, use a self-leveling compound to even out the floor. All the preparation and application steps are the same as for concrete subfloors.

If your floor has excess sagging, check beneath the subfloor. You may be able to correct some sagging by installing wood supports between the joists below the subfloor. Once your wood subfloor is level, you can install your underlayment (if necessary) then your vinyl.

Removing Molding and Doors

When installing vinyl, you have a couple of different options when it comes to working around molding:

- You can remove all molding and baseboards in your installation area with a crow or pull bar. If you plan on reusing the molding and baseboards, take care during removal. Small nicks can be filled, sanded and painted over; however, pieces that are broken or have major damage may need to be replaced.

- If your vinyl will fit below the molding and the subfloor, you can leave moldings in place and cut your vinyl to slip seamlessly under the molding. If you choose to leave the trim in place, take care to cut your vinyl long enough to fit completely under the molding, but not so long that it fits too tightly to the wall behind (which will cause bubbles that are difficult to remove once the floor is glued).

- You can leave your existing molding in place and install vinyl right up to the molding. Once your installation is complete, you'll go back and caulk the seam between the edge of the flooring and the bottom of the molding to ensure the vinyl does not start to peel away from the subfloor. This method is only recommended if the molding is extremely difficult to remove. It can be difficult to trim vinyl neatly and accurately along the trim. Additionally, the caulking could fail in the future causing the vinyl to curl along the edges. If using this method, keep an eye on all caulked areas. Remove existing caulk and reapply as necessary throughout the life of the floor.

Additionally, it's a good idea to remove all doors and set aside especially if you are installing sheet vinyl. Always remove all furniture in the installation area. If working in a bathroom, remove the toilet as well so the flooring can be installed under the fixture.

> ✔ **TIP:** Many professionals do not recommend caulking around the toilet after the vinyl is installed. If caulked, you are less likely to notice small leaks.

Undercutting Door Casings

Not all vinyl installations require you to undercut door casings.

- If you are installing your vinyl over a concrete subfloor without an underlayment AND you are installing your vinyl flush with your molding, you do not have to undercut door casings.

- If you are installing a plywood underlayment OR you are installing your vinyl under your molding, you should consider undercutting your door casings so that your floor has a consistent look.

> ✔ **TIP**: It is a good idea to undercut door casings for all installations to help protect the subfloor from moisture. Vinyl that is cut short around door casings can allow moisture to penetrate the subfloor.

You should undercut all door casings before you begin your installation. This ensures you do not have excess wood chips or saw dust in your installation area.

To undercut door casings, you'll need a scrap piece of vinyl, a pencil, a scrap piece of underlayment and your saw (a handsaw or special saw for cutting door jambs). Always use the finest blade possible when undercutting door casings so that the saw does not split or mar the wood. NEVER use a saws-all or skill saw as these saws may be difficult to control for these types of cuts.

1. Use the scrap piece of flooring and your underlayment to bring your saw up to the right height of the door casing.

2. Use a pencil to draw a line at the top of the vinyl/underlayment. This is how much you'll be cutting off the bottom of the door casing so that the vinyl will fit underneath it.

3. Use the saw to cut the door casing along the line you drew. Keep your scrap piece of vinyl/underlayment in place to help ensure you make a straight cut.

Now when you reach a door casing, you can slide the vinyl under the casing and flush with the wall.

Installing the Underlayment

If you are installing vinyl over a wood subfloor or above existing flooring, you should consider installing an underlayment. (For more information, see the **Choose an Underlayment** section beginning on page **9**.) When installing your underlayment, keep these things in mind:

- Stagger your sheets so seams are at least 12 inches from the seams in the subfloor. Stagger the underlayment joints a minimum of 12 inches.

- Start in one corner of the room and work your way across the whole floor.

- Leave a 1/8" expansion perimeter along all walls.

- Leave between 1/16" and 1/32" expansion gap between each underlayment sheet.

- Place factory edges to factory edges whenever possible.

- Fill all expansion gaps with a thin layer of leveling compound. Once dry, sand the seams so they are level and flat.

- Use 1 ¼" (3d) ring shank nails to secure the underlayment to the subfloor. Place nails every 6" in the field and every 4" at all seams. Most professional installers use ¼" crown, divergent, galvanized staples spaced 4" apart in the field and 2" apart at all seams instead of nails. Both the nails and the staples should fully penetrate the subfloor but should not be visible from underneath.

- Let the installed underlayment acclimatize for 24 hours before installing your vinyl, if recommended by your flooring manufacturer.

> ✔ **TIP:** This acclimatization process can be especially important in cold climates.

INSTALLING FELT BACKED SHEET VINYL

Felt backed sheet vinyl and can be installed via two different methods:

- **Full Spread Adhesive** – An adhesive is applied to the whole floor beneath the vinyl.

- **Perimeter Adhesive** – An adhesive is only applied to the perimeter of the floor and at any seams. Staples can be used along the perimeter, if desired.

> ✔ **TIP**: The full-spread method is a good choice for felt backed and fiberglass sheet vinyl in high traffic areas. This is the method most professional installer use for all vinyl installations.
>
> The perimeter adhesive method can be a good choice for higher-quality felt backed vinyl. Using the perimeter adhesive method also makes removing the vinyl at a later date easier (such as if the vinyl is only being installed for a short time). If stapling, be sure your molding will cover all staples. Please note, however, that most professional installers do not recommend using the perimeter adhesive method as the vinyl may come loose around the edges and may tear more easily during use (even with high-end vinyl).

Installation steps for both methods only differ in where you apply your adhesive. Always follow all the adhesive manufacturer's recommendations during installation.

Depending on your floor size, you may be:

- **Installing a Vinyl Floor without Seams**

- **Installing a Vinyl Floor with Seams**

> 🗒 **NOTE**: Working with sheet vinyl can be difficult because it is bulky and heavy. Be sure to ask for help when moving the vinyl. Always measure and make all cuts carefully.

Tools and Materials

You will need the following tools and materials:

- ❑ 100lb roller or rolling pin
- ❑ Carpenter's square
- ❑ Floor pattern or Kraft paper
- ❑ Full-spread adhesive
- ❑ Gloves
- ❑ Masking tape
- ❑ Measuring tape and/or ruler

- ❑ Notched trowel
- ❑ Pencil and/or felt-tipped pen
- ❑ Scissors
- ❑ Seam sealer kit
- ❑ Shears or snips
- ❑ Staple gun
- ❑ Utility knife

This is not an all inclusive list. Your tools and materials may vary based on your specific installation needs.

Installation Tips and Tricks

Use these tips and tricks to help ensure you have a successful felt backed vinyl installation:

- Leave a 1/8" expansion perimeter if recommended by your flooring manufacturer. The vinyl floor should never touch the walls or over time it will start to fold or bubble. However, sheet vinyl can be installed flush with bathtubs or showers as you will need to caulk these areas to prevent water from penetrating your subfloor.

- Wear gloves if using a full spread adhesive. This type of adhesive will stick to everything (skin, clothes, hair, etc.) and may take a few days to wear off.

- Do not unroll your sheet of vinyl and leave it out too long before you are ready to install it. Your vinyl may contract before it is laid permanently in place.

- Do not lay your vinyl in direct sunlight.

- For trimming vinyl in place, purchase a few specialty "hook blades" for your utility knife. These blades fit in all standard utility knives and can greatly increase your speed and accuracy. (Always practice on a scrap piece of vinyl before using on your floor.) Blades are available at most home improvement and flooring stores.

Pre-Installation Steps

Prior to installation, follow all the information in the **Preparing for Installation** section beginning on page **11**. This includes:

- **Moisture Testing Your Concrete Subfloor** (page **11**)
- **Inspecting and Leveling Your Subfloor** (page **12**)
- **Removing Molding and Doors** (page **15**)
- **Undercutting Door Casings** (page **16**)
- **Installing the Underlayment** (page **17**)

Additionally, place the sheet vinyl in the installation area 24 hours before your installation to give it time to acclimatize to the room conditions.

Installing a Vinyl Floor without Seams

If you are installing vinyl in a small room with no seams and few obstacles (such as a bathroom or closet), you can install without making a pattern.

1. Measure your room taking into account any obstacles or odd shapes you must work around.

2. Add 3 inches to all sides of your room measurement.

3. Find a clean, dry place to unroll your vinyl. Garages or large rooms work best. If working in the house on other flooring, ALWAYS place some sort of protective barrier between the vinyl and your existing flooring.

4. Use a sharp utility knife to cut out the rough dimensions of your room.

5. Roll up your cut vinyl and take back into your installation area.

6. Sweep or vacuum the subfloor then lay out the vinyl in the installation area.

7. Use your utility knife to cut away any excess along walls or obstacles. Take care and make these cuts exact.

    ▪ Use a scrap piece of wood to press the vinyl up against straight walls to slightly crease it. Use a straight edge to cut along the crease. Be sure to leave a 1/8" expansion gap if recommended by your flooring manufacturer.

    ▪ Cut around obstacles (such as vents or islands) carefully so that all cuts are exact.

    ▪ To trim outside corners, cut vertically from top to bottom through the sheet at the corner. Then cut away the excess on either side of the corner.

    ▪ To trim inside corners, cut a "V" shape in the corner where the vinyl folds or overlaps. The bottom tip of the "V" should be at the floor level. Start with small "V's" until you cut away enough so that the vinyl lays flat in each corner. Cut away the excess along either wall.

Outside Corner   Inside Corner

8. You are now ready to glue the vinyl to the subfloor.
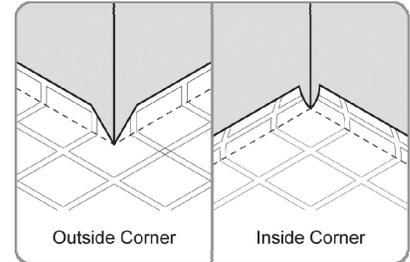
Adhering the Seamless Vinyl to the Subfloor

Now that your vinyl is laid out and cut, it's time to begin securing it to your subfloor.

1. Roll back half the floor and tape in place.

> ✔ **TIP:** Place a heavy object such as your bucket of glue, a tool box or a few full paint cans on the other half of the floor to keep it from shifting while rolling back your vinyl. If it does shift, make sure to reposition the sheet as necessary prior to putting any weight on the glued section of the floor. Once the vinyl is laid into the adhesive, it can be nearly impossible to move it without damaging the floor.

2. Apply the adhesive according to the manufacturer's recommendations. Read the instructions on the adhesive bucket carefully as some adhesives require "open time." This refers to the amount of time the glue should be left exposed prior to the vinyl being laid into it. If you install your vinyl too soon, you will get bubbles in your floor due to the adhesive "off-gassing" during the curing process.

3. Carefully unroll the vinyl and press firmly in place. Apply pressure starting from the middle and working your way to the edge. Staple edges where necessary or desired.

4. Roll the newly installed vinyl floor with a roller as recommended by your flooring manufacturer. For more information on rolling, see Rolling the Floor on page 28.

5. Repeat steps 1 through 4 for the other half of the floor.

6. Re-roll the entire floor as recommended by the adhesive manufacturer.

7. Let the floor cure completely. For more information, see Letting the Floor Cure on page 29.

Installing a Vinyl Floor with Seams

Anytime you install sheet vinyl in a large room with multiple seams and obstacles, you should create a pattern of your floor. This will help you cut your vinyl to the correct size for your installation area.

Creating a Pattern

Pattern kits can be purchased at any home improvement store or you can simply use a roll of Kraft paper, masking tape, scissors, a straight edge and a utility knife.

> **NOTE:** Some patterns come with a roller disk to help you create the pattern along walls. These disks create a pattern that is 1 inch less than your floor. Before you cut your vinyl, be sure to add 1 inch to all your measurements along each wall so that your vinyl is the correct size for your room.

1. Lay the paper down along the longest wall (hopefully with the fewest obstructions). Use the masking tape to tape sheets together so that the entire floor along the wall is covered. Leave an expansion gap between the paper and the wall, if required.

2. Work your way across the room adding paper to your initial section. Keep the pattern as smooth as you can and add generous amounts of masking tape along each seam to hold the pattern together.

> ✔ **TIP:** Cut small diamond shapes every 2 to 4 feet in each direction. Place a strip of masking tape over these cutouts to help hold the pattern to the subfloor.

3. As you reach obstacles in the room (kitchen islands, pipes, etc.), cut and/or fold the paper to fit around the obstacle. Remember to leave an expansion gap between the edge of the pattern and the obstacle, if required. Take more time in these areas to ensure the pattern is accurate. Press the pattern under the door casings and cut to fit.
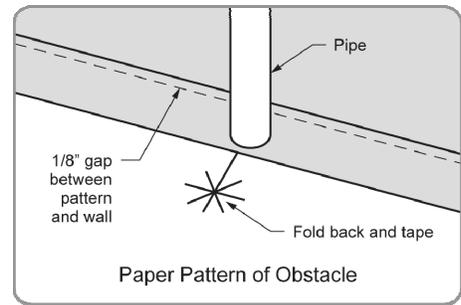
Pipe

1/8" gap between pattern and wall

Fold back and tape

Paper Pattern of Obstacle

> ✔ **TIP:** If you mistakenly cut too much away from the pattern for a certain area, add more paper and tape in place. If you need to remove paper in a certain area, cut or fold back and tape the paper.
> If you are not removing wall base, press the edge of the paper into the crease along the molding. Do a short length of wall at a time to ensure the pattern is accurate. Cut out the pattern for each wall along the crease and tape to your overall pattern. This helps to ensure your pattern matches the contours of the wall and molding exactly.

4. Once you've created a pattern for the whole floor, look at the pattern before you remove it from the subfloor. Make sure:

- The pattern is smooth and flat on the floor.
- The entire floor has an expansion gap around the perimeter, if necessary.
- All obstacles have been identified and accounted for in the pattern.

5. Use a felt tipped marker to write "TOP" on the pattern. Carefully roll up your pattern.

> ✔ **TIP:** While this might seem like a silly step, distractions are common during installations. Doing this one simple step can save you from having to re-purchase and cut your vinyl because you used the wrong side of the pattern.

6. Find a clean, dry place to unroll your vinyl. Garages or large rooms work best. If working on other flooring, ALWAYS place some sort of protective barrier between the vinyl and your existing flooring.

Unroll the vinyl as it will be installed on your floor (TOP side up). You can use small tools, bricks or books to hold down edges.

7. Take your paper pattern to the area with your unrolled vinyl. You are now ready to create your seams (if needed) and cut your vinyl.

Creating Seams

If you are installing vinyl in a large area, you may have to account for seams. Always try to install your vinyl so there are as few seams as possible. When creating a seam, use the pattern on your vinyl to your advantage to hide the seam. Create seams along faux grout lines or other natural line breaks in the pattern. If your vinyl has a repeating pattern, make sure to add enough to each "cut" in order to match the pattern. The goal is to hide your seams to make the floor look like one continuous sheet of vinyl.

Stagger Seams
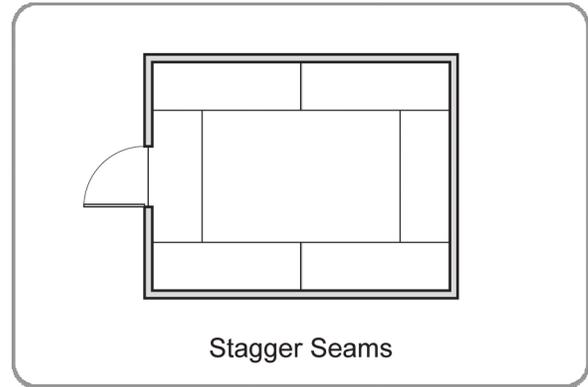
When identifying where to put seams, use these guidelines:

- Place seams perpendicular to doorways and entrances.

- If installing vinyl in two adjoining rooms, try to plan the layout so that the connecting seam will fall on a grout line or pattern break in the doorway connecting the two rooms. This will help to create the appearance of a seamless installation.

- Try to run seams parallel to high traffic areas.

- Do not align seams on top of existing vinyl seams.

- Try to avoid placing seams at pivot points or in high traffic areas.

- If you are working around a kitchen island, place the seam on the low traffic side of the island, if possible.

1. Lay your pattern out on top of your unrolled vinyl (either one or multiple sheets). The vinyl and your paper pattern should be facing up as it will be installed on the floor.

> ✔ **TIP:** Remove the tape covering your cut out diamonds and replace with new tape. Press securely to the vinyl to help keep the pattern in place while you're cutting.

2. At a seam, align the second piece of vinyl so that it overlaps the first piece by at least 1 inch. **Make sure the patterns on both pieces match.** Remember, you want your seam to blend in with the pattern. Use masking tape to tape the two pieces of vinyl securely together.

> ✔ **TIP**: It's OK if the overlap is more than 1 inch so the patterns match. You will be cutting off the excess. Always match the patterns in the same direction as they were on the roll.
> Additionally, make small cutouts a few places along the seam on the edge of the grout line that will be cut off. Use these areas as "windows" to match the pattern on the top piece to the pattern on the piece below.

3. Use a utility knife and straight edge to cut through BOTH pieces of vinyl. Lay the newly cut seams together so that they are flush with each other and the patterns match and/or repeat naturally.

> ✔ **TIP**: Use a new, sharp blade and practice cutting through two pieces of scrap vinyl before you make your first seam cut.
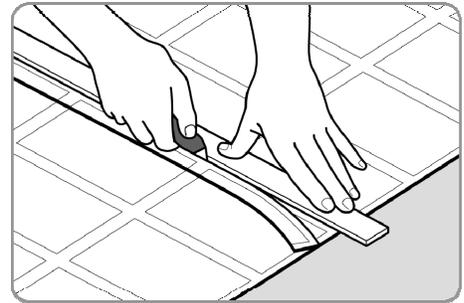
4. Tape the newly cut seam securely together with masking tape. Discard the excess cut vinyl.

5. Repeat these steps for other seams throughout your installation area.

Cutting the Vinyl to Fit the Pattern

Once your pattern is created and you've cut all the seams, it's time to cut the rest of your vinyl. You have two options when it comes to cutting your vinyl. You can:

- Use a utility knife (and possibly a straight edge) to cut the vinyl along your pattern. (This method is recommended by most flooring professionals.)

- Use a felt tipped marker to trace your pattern on the vinyl then cut with heavy-duty shears. (This method should be used sparingly as it is difficult to get straight and even cuts with shears.)

1. If it is not already, lay your pattern out on top of your unrolled vinyl. The vinyl and your paper pattern should be facing up as it will be installed on the floor. Both the vinyl and the pattern should be smooth and flat.

   ✔ **TIP**: Remove the tape covering your cut out diamonds and replace with new tape. Press securely to the vinyl to help keep the pattern in place while you're cutting.

2. Carefully cut your vinyl along the pattern. Cut out or around any obstacles or other items in your pattern.

   NOTE: Some professionals leave 3" on either side of their pattern along all walls. They will then cut off the excess once the vinyl is laid out in the installation area to ensure the vinyl fits flush with the walls.

3. Once the vinyl is cut, roll up and remove the pattern.

4. Carefully, roll up the vinyl and take it into the installation area.

   ✔ **TIP**: Roll up the vinyl so that it can be unrolled in the direction you want to install it. Always have someone help you carry the vinyl into the installation area. Sheet vinyl is heavy and bulky to transport.

Adhering the Vinyl to the Subfloor

Now that your vinyl is cut, it's time to begin securing it to your subfloor. You should always install larger vinyl sections first then work your way down to the smaller sections. Follow all the manufacturer's recommendations during installation.

1. After you've swept and vacuumed the subfloor, unroll and align your vinyl in the installation area. Position all seams as they will be on the floor.

2. Evaluate your cutting job. Remove any excess where needed.

3. Starting with the largest piece of vinyl, roll back half the sheet (opposite the seam) and tape in place with masking tape. Some professionals recommend starting at the edge of the room with the least amount of obstructions.

    Place heavy objects such as buckets of glue, a tool box or a few full paint cans on the other half of the vinyl to keep it from shifting while you are rolling. If it does shift, make sure to reposition the sheet as necessary prior to putting any weight on the glued section of the floor. Once the vinyl is laid into the adhesive, it is very difficult to move without damaging the floor.

4. Apply the adhesive according to the manufacturer's recommendations. Only glue the edges of the sheet if you are using the perimeter adhesive installation method. Staple edges where necessary or desired if using the perimeter adhesive method.

5. Carefully unroll the vinyl and press firmly in the adhesive. Apply pressure starting from the middle and working your way to the edge for full spread adhesives.

6. Roll back the edge near the seam and tape in place.

7. Use a pencil to trace a line next to the seam on the subfloor.

8. Roll back slightly and tape the other (smaller) piece of vinyl.

9. Spread your adhesive under both rolled back pieces of vinyl (for full spread) and along the seam line you just made.

    Follow all the manufacturer's recommendations for spread rate and the type of trowel to use. Some manufacturer's recommend applying adhesive 2" on either side of the seam, while others recommend 6" on either side (for perimeter adhesive). When installing near obstructions, spread the adhesive as close to the obstruction as possible. (If the adhesive is even a half an inch from the wall, the vinyl will eventually curl and allow moisture and debris to get underneath which could damage your subfloor.)

10. Lay the largest piece of vinyl down into the adhesive then the smaller piece. Press tightly together and to the floor. Make sure both pieces are flat on the floor. Wipe away any excess adhesive that is squeezed up through the seam.

> **NOTE**: Make sure all seams are cleaned free of flooring adhesive. The adhesive may interfere with the seam sealer. Eventually, the seam will fail and the vinyl will curl and allow moisture or debris below the flooring.
>
> Additionally, if the vinyl pieces are not pressed tightly together you may get a condition called ledging. This is when one piece of vinyl is higher on the floor than the other. Dirt and other debris can get trapped on the ledge and call attention to the seam.

11. Roll the whole seam with a roller or rolling pin. This helps keep the two pieces in contact with each other and the floor.

12. Roll the newly installed section of vinyl floor with a roller as recommended by your flooring manufacturer. For more information on rolling, see Rolling the Floor on page 28 (see below).

13. Curl the second half of the second sheet of vinyl back and repeat the installation procedures. Work your way across the room until all pieces are installed and rolled.

14. Re-roll the entire floor as recommended by the manufacturer.

Rolling the Floor

Many adhesive manufacturers recommend rolling the floor with a 75 to 100-lb roller during and after the vinyl is installed. Rolling works out any air bubbles and glue pockets as well as ensures the whole floor is in contact with the adhesive. If you do not own a roller, you can rent one at an equipment rental shop. For smaller areas, you can use a 3 section laminate roller. For very small areas or seams, use a rolling pin. Different products require different methods, so always consult your manufacturer's guidelines when choosing a roller.

When rolling, always start in the center of the floor and work your way toward the edges (much like rolling out pie dough). Roll both the length and the width of the floor. Pay close attention to all seams. Make sure that during rolling you are not separating the seams from each other. If any adhesive seeps out from under the floor, wipe it up immediately with a damp rag.

Sealing Seams

Once your floor is installed, you should seal all seams to prevent moisture from penetrating the subfloor. Special seam sealer kits can be purchased at most flooring and home improvement stores. Follow all the directions for your specific kit.

> **NOTE:** Do not leave large pools of sealer along the seam as it will dry and be visible on your floor. Wipe up excess sealer with a rag or paper towel. When using solvents, always follow the manufacturer's recommendations as some solvents can damage the wear layer.

Letting the Floor Cure

Most floors need between 24 and 72 hours to cure and bond. Always follow your adhesive manufacturer's recommendations as times may vary between products. This curing time is critical for the floor as well as the seams. During this time, you should not move any furniture back into the room and keep foot traffic to a minimum. Additionally, some manufacturer's recommend keeping the temperature in the installation at 65 degrees or above for 48 hours after the installation.

Once cured, use care when moving appliances or heavy pieces of furniture back into the room. Place these items on plywood or other type of padding and "walk" into place. Try not to slide anything heavy across the floor or you may scuff or damage your new vinyl floor.

Follow all your manufacturer's recommendations for cleaning the floor. Some recommend not mopping for 5 days after installation.

INSTALLING VINYL TILE

Vinyl tiles or planks can be installed via one of three methods:

- **Peel-and-stick** – Adhesive is applied when the tiles are manufactured. During installation, you remove the protective backing and secure vinyl tiles to the subfloor. This is the easiest way to install vinyl tiles and planks.

- **Tab or Spray Adhesive** – You apply glue tabs or a spray adhesive to the bottom of each tile and secure to the subfloor.

- **Full Spread Adhesive** – An adhesive is applied to the whole floor beneath the vinyl.

Installing vinyl tiles or planks is much like installing ceramic or stone tile. You'll use the same installation procedures for each adhesive method.

> ✔ **TIP**: If installing self-adhesive vinyl tiles, consider applying a latex primer to the subfloor before installation if recommended by your manufacturer.

Tools and Materials

You will need the following tools and materials:

- ❑ Carpenter's square
- ❑ Chalk line
- ❑ Felt-tipped pen and/or pencil
- ❑ Full-spread adhesive, adhesive tabs or spray adhesive (if necessary)

- ❑ Masking tape
- ❑ Measuring tape and/or ruler
- ❑ Notched trowel
- ❑ Utility knife
- ❑ Vinyl tile cutter, shears or snips

*This is not an all inclusive list. Your tools and materials may vary based on your specific installation needs.

> ✔ **TIP**: A vinyl tile cutter is much like a paper cutter for vinyl. These enable you to quickly make straight cuts during your installation. If you don't want to buy one, these can be rented from many equipment rental shops.

Installation Tips and Tricks

Use these tips and tricks to help ensure you have a successful vinyl tile installation:

- Leave a 1/8" expansion perimeter, if recommended by your flooring manufacturer. Vinyl tiles can be installed flush with bathtubs, showers and thresholds as you will need to caulk these areas to prevent water from penetrating your subfloor.

- Keep a hairdryer or heat gun handy if installing peel and stick vinyl tiles. If you install one incorrectly, heat with the hairdryer and slide quickly into place.

Pre-Installation Steps

Prior to installation, follow all the information in the **Preparing for Installation** section beginning on page **11**. This includes:

- **Moisture Testing Your Concrete Subfloor** (page **11**)

- **Inspecting and Leveling Your Subfloor** (page **12**)

- **Removing Molding and Doors** (page **15**)

- **Undercutting Door Casings** (page **16**)

- **Installing the Underlayment** (page **17**)

Installing Vinyl Tiles

Installing vinyl tiles is much like installing ceramic or stone tiles in the way the flooring is laid out.

1. Snap a chalk line between the center points of each opposite wall. The place on the floor where the chalk lines intersect is the center of the room.

   Make sure the quadrants are nearly perfect squares.

Room Layout for Installing Vinyl Tile

2. Layout a row of loose vinyl tiles in all directions at the intersection point.
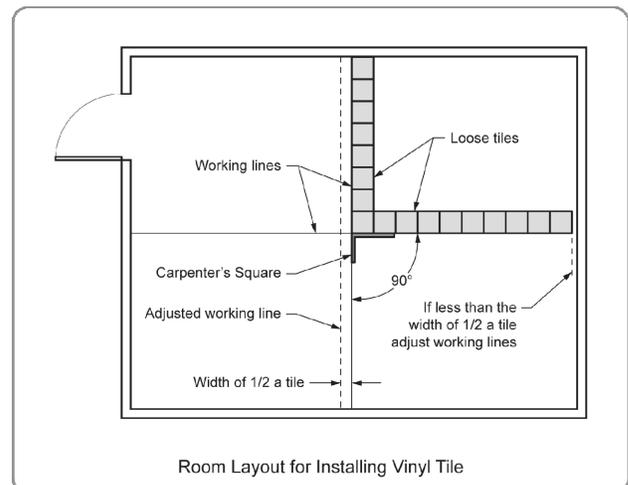
3. Evaluate whether the center intersection point is a good starting place.

   If you end up with small cuts along each wall (less than ½"), move your starting point down by ½ vinyl tile width for each wall (if necessary). Re-snap your chalk line and lay out your loose vinyl tiles to re-evaluate the placement.

4. Once you're satisfied with your center point, divide the main four quadrants into smaller sections (if you're working in a large room). Doing this makes it easier to install straight vinyl tile section by section. Snap chalk lines to outline each section within each quadrant.

5. Sweep and vacuum the floor so it is completely clean.

6. Beginning at the center point, install the first vinyl tile so it aligns with the two main chalk lines in the center of the room. Apply the adhesive to the subfloor as directed by the manufacturer or remove the backing and stick firmly to the subfloor.

> ✔ **TIP**: If using peel and stick vinyl, place each tile correctly. The adhesive on these types of tiles is very strong and hard to remove once in place.

7. Place another vinyl tile next to the first one in one direction of the room then along the other direction. Tiles should be snug but not overlapping.
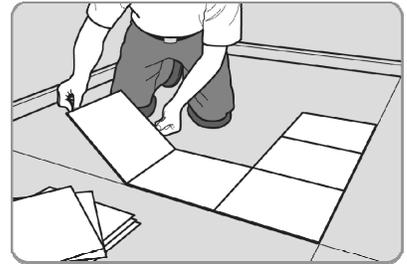
8. When you reach a wall, scribe fit the vinyl tile.

    ▪ Place a full vinyl tile directly on top of the one you just installed near the wall.

    ▪ Place a second vinyl tile on top of the other two butted up against the wall. (Leave expansion spacing, if needed).

    ▪ Use a pencil to mark the inner edge of the top vinyl tile on the middle one.

    ▪ Remove the middle one and cut along the line. The cut tile should now be the exact width you need for your installation area.

9. Continue installing vinyl tile in each section and quadrant until the floor is completed.

10. Roll the newly installed vinyl tiles with a roller as recommended by your flooring manufacturer. For more information on rolling, see **Rolling the Floor** on page **28**.

Letting the Floor Cure

Most vinyl tile floors need between 24 and 72 hours to dry and cure. Always follow your adhesive manufacturer's recommendations as times may vary between products. This curing time is critical for the floor. During this time, you should not walk excessively on the floor or move any furniture back into the room. Additionally, some manufacturer's recommend keeping the temperature in the installation area at 65 degrees or above for 48 hours after the installation.

Once cured, use care when moving appliances or heavy pieces of furniture back into the room. Place these items on plywood or other type of padding and "walk" into place. Try not to slide anything heavy across the floor or you may scuff or damage your new vinyl floor.

Follow all your manufacturer's recommendations for cleaning the floor. Some recommend not mopping for 5 days after installation.

INSTALLING FIBERGLASS SHEET VINYL

Fiberglass sheet vinyl can be installed via three different methods:

- **Loose Lay** – For most floors that are less than 25 sq yards (225 sq feet); however, always follow your specific manufacturer's recommendations for size. Some loose lay fiberglass vinyl floors cannot have any seams. Other loose lay floors may be secured to the subfloor at seams.

- **Semi-Loose Lay** – For any size floor. Semi-loose lay fiberglass vinyl is secured to the subfloor along two adjoining walls (preferably at the entrance to the room and the wall with heavy appliances) as well as secured under appliances and in heavy traffic areas. To secure these floors you can use:

  - Acrylic double sided tape

  - Pressure sensitive adhesive

  > **NOTE:** If using the semi-loose lay method DO NOT secure the vinyl on oppose walls as the floor needs to be able to move. If it cannot move, you will get bubbles in the center of your floor.

- **Full Spread Adhesive** - For any size floor. Installation is similar to felt-backed sheet vinyl. However when installing fiberglass vinyl, always follow your manufacturer's recommendations during installation. The adhesive application may be different than for felt-backed vinyl.

  > **NOTE:** For some fiberglass vinyl floors the adhesive is applied with a paint roller then allowed to dry completely before placing the vinyl into the glue. For other types of fiberglass vinyl, the glue is applied with a notched trowel and the vinyl is placed in the wet glue.

Tools and Materials

You will need the following tools and materials:

- ❑ Acrylic double sided tape or pressure sensitive adhesive
- ❑ Carpenter's square
- ❑ Felt-tipped pen
- ❑ Floor pattern or Kraft paper
- ❑ Gloves

- ❑ Masking tape
- ❑ Measuring tape and/or ruler
- ❑ Notched trowel or paint roller
- ❑ Scissors
- ❑ Shears or snips
- ❑ Utility knife

This is not an all inclusive list. Your tools and materials may vary based on your specific installation needs.

Installation Tips and Tricks

Use these tips and tricks to help ensure you have a successful fiberglass vinyl installation:

- Leave a 1/8" expansion perimeter if recommended by your flooring manufacturer. Loose lay fiberglass vinyl can be installed flush with bathtubs as you will need to caulk these areas to prevent water from penetrating your subfloor.

- If you are transporting fiberglass vinyl that is more than 6 feet long, make sure it is rolled on a sturdy core. Fiberglass vinyl that is less than 6 feet can be rolled the short way for transit.

- Do not overlap pieces of acrylic tape.

- If using pressure sensitive adhesive, follow the manufacturer's recommendations for adhesive application and open time.

- Additionally, follow all your manufacturer's recommendations for installation. Cutting techniques, seams and adhesives may be different than for felt-backed vinyl.

- Do not lay your fiberglass vinyl in direct sunlight prior to installation.

Pre-Installation Steps

Prior to installation, follow all the information in the Preparing for Installation section beginning on page 11. This includes:

- Moisture Testing Your Concrete Subfloor (page 11)
- Inspecting and Leveling Your Subfloor (page 12)
- Removing Molding and Doors (page 15)
- Undercutting Door Casings (page 16)
- Installing the Underlayment (page 17)

Additionally, place the fiberglass sheet vinyl in the installation area 6 hours before your installation to give it time to acclimatize to the room conditions, if recommended by your manufacturer. The installation area temperature should be at least 65 degrees and the fiberglass vinyl should be rolled face out for proper acclimatization.

Installing a Loose Lay Fiberglass Vinyl Floor

Installing a fiberglass vinyl loose lay floor is similar to installing a felt-backed vinyl floor. The main difference is that you will not be adhering the fiberglass vinyl to the subfloor.

1. Measure your room taking into account any obstacles or odd shapes you must work around.

2. Add 3 inches to all sides of your room measurement.

3. Find a clean, dry place to unroll your fiberglass vinyl. Garages or large rooms work best. If working on other flooring, ALWAYS place some sort of protective barrier between the fiberglass vinyl and your existing flooring.

4. Use a sharp utility knife to cut out the rough dimensions of your room.

5. Roll up your cut fiberglass vinyl and take back into your installation area.

6. Sweep or vacuum the subfloor then lay out the fiberglass vinyl in the installation area.

7. Use your utility knife to cut away any excess along walls or obstacles. Take care and make these cuts exact.

   - Use a scrap piece of wood to press the vinyl up against straight walls to slightly crease it. Use a straight edge to cut along the crease. Be sure to leave a 1/8" expansion gap if recommended by your flooring manufacturer.

   - Cut around obstacles (such as vents or islands) carefully so that all cuts are exact.

- ▪ To trim outside corners, cut vertically from top to bottom through the fiberglass sheet at the corner. Then cut away the excess on either side of the corner.

- ▪ To trim inside corners, cut a "V" shape in the corner where the fiberglass vinyl folds or overlaps. The bottom tip of the "V" should be at floor level. Start with small "V's" until you cut away enough so that the fiberglass vinyl lays flat in each corner. Cut away the excess along either wall.

Outside Corner   Inside Corner
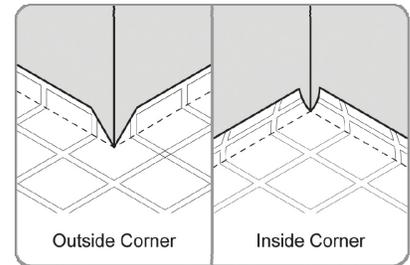
8. The floor is now installed. Caulk and install molding where necessary.

Installing a Semi-Loose Lay Fiberglass Vinyl Floor

Installing a semi-loose lay fiberglass vinyl floor is much like installing felt-backed vinyl. If you have a large room, you should consider creating a pattern then cutting your fiberglass vinyl based on the pattern. This will help you cut your vinyl to the correct size for your installation area.

If the semi-loose lay floor will have seams:

- Place seams perpendicular to doorways and entrances.

- Do not align the seam on top of an existing vinyl seam

- Try to avoid placing seams at pivot points or in high traffic areas.

- If you are working around a kitchen island, place the seam on the low traffic side of the island, if possible.

- Try to run seams parallel to high traffic areas.

- Always try to install your fiberglass vinyl so there are as few seams as possible.

Creating a Pattern

Pattern kits can be purchased at any home improvement store or you can simply use a roll of Kraft paper, masking tape, scissors, a straight edge and a utility knife.

> **NOTE:** Some patterns come with a roller disk to help you create the pattern along walls. These disks create a pattern that is 1 inch less than your floor. Before you cut your fiberglass vinyl, be sure to add this 1 inch back to your measurements along each wall so that your vinyl is the correct size for your room.

1. Lay the paper down along the longest wall (hopefully with the fewest obstructions). Use the masking tape to tape sheets together so that entire floor along the wall is covered. Leave an expansion gap between the paper and the wall, if required.

> **NOTE:** Your fiberglass vinyl flooring may roll up or buckle if you cut it to the exact dimensions of the room. The expansion gap allows for some movement. Don't worry; this gap can be covered by wall base or quarter round molding.

2. Work your way across the room adding paper to your initial section. Keep the pattern as smooth as you can and add generous amounts of masking tape along each seam to hold the pattern together.

> ✔ **TIP:** Cut small diamond shapes every 2 to 4 feet in each direction. Place a strip of masking tape over these cutouts to help hold the pattern to the subfloor.

3. As you reach obstacles in the room (kitchen islands, vents, etc.), cut and/or fold the paper to fit around the obstacle. Remember to leave 1/8" expansion gap between the edge of the pattern and the obstacle, if required. Take more time in these areas to ensure the pattern is accurate. Press the pattern under door casings and cut to fit.
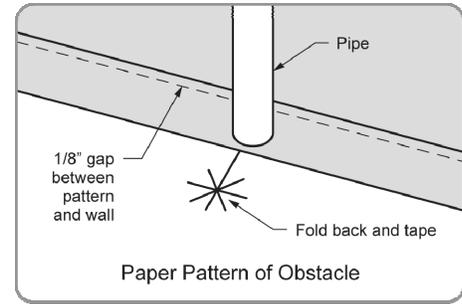
Paper Pattern of Obstacle

> ✔ **TIP**: If you mistakenly cut too much away from the pattern for a certain area, add more paper and tape in place. If you need to remove paper in a certain area, cut or fold back and tape the paper.
>
> If you are not removing wall base, press the edge of the paper into the crease along the molding. Do a short length of wall at a time to ensure the pattern is accurate. Cut out the pattern for each wall and tape to your overall pattern. This helps to ensure your pattern matches the contours of the wall and molding exactly.

4. Once you've created a pattern for the whole floor, look at the pattern before you remove it from the subfloor. Make sure:

- The pattern is smooth and flat on the floor.

- The entire floor has a 1/8" expansion gap around the perimeter, if required.

- All obstacles have been identified and accounted for in the pattern.

5. Use a felt tipped marker to write "TOP" on the pattern. Carefully roll up your pattern.

> ✔ **TIP**: While this might seem like a silly step, you can get distracted during your installation. Doing this one simple step can save you from having to re-purchase and cut your fiberglass vinyl because you used the wrong side of the pattern.

6. Find a clean, dry place to unroll your fiberglass vinyl. Garages or large rooms work best. If working on another type of flooring, ALWAYS place some sort of protective barrier between the fiberglass vinyl and your existing flooring.

Unroll the fiberglass vinyl as it will be installed on your floor (TOP side up). You can use small tools, bricks or books to hold down edges.

7. Take your paper pattern to the area with your unrolled vinyl. You are now ready to create your seams (if needed) and cut your fiberglass vinyl.

Creating Seams

If you are installing fiberglass vinyl in a large area, you may have to account for seams. When creating a seam, use the pattern on your vinyl to your advantage to hide the seam. Create seams along faux grout lines or other natural breaks in the pattern. If your fiberglass vinyl has a repeating pattern, add enough to the second "cut" to match the pattern properly. The goal is to hide your seams to make the floor look like one continuous sheet of vinyl.


Stagger Seams
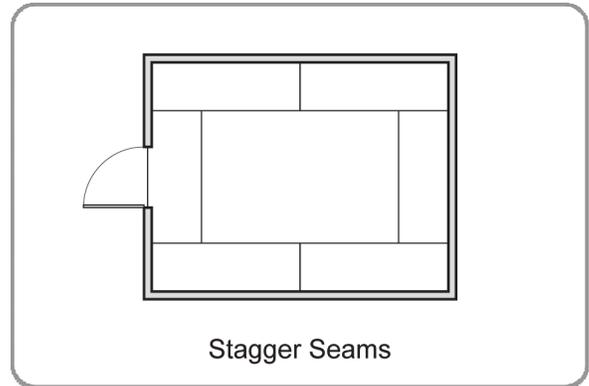
1.   Lay your pattern out on top of your unrolled fiberglass vinyl (either one or multiple sheets). The vinyl and your paper pattern should be facing up as it will be installed on the floor.

> ✔ **TIP:** Remove the tape covering your cut out diamonds and replace with new tape. Press securely to the vinyl to help keep the pattern in place while you're cutting.

2.   At a seam, align the second piece of fiberglass vinyl so that it overlaps the first piece by at least 1 inch. **Make sure the patterns on both pieces match.** Remember, you want your seam to blend in with the pattern. Use masking tape to tape the two pieces of vinyl securely together.

> ✔ **TIP:** It's OK if the overlap is more than 1 inch so the patterns match. You will be cutting off the excess. Always match the patterns in the same direction as they were on the roll.

1.   Use a utility knife to cut through BOTH pieces of fiberglass vinyl. Lay the newly cut seams together so that they are flush with each other and the patterns match and/or repeat naturally.
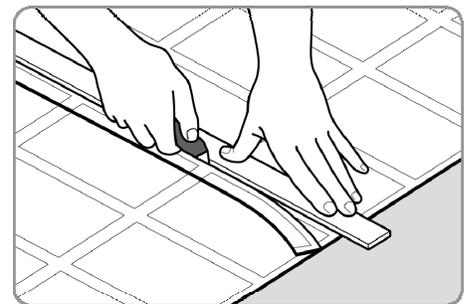
> ✔ **TIP:** Use a new, sharp blade and practice cutting through two pieces of scrap vinyl before you make your first seam cut.

2. Tape the newly cut seam securely together with masking tape. Discard the excess cut vinyl.

3. Repeat these steps for other seams throughout your installation area.

Cutting the Vinyl to Fit the Pattern

Now that you've got your pattern and you've created all the seams, it's time to cut your fiberglass vinyl. You have two options when it comes to cutting your vinyl. You can:

- Use a utility knife (and possibly a straight edge) to cut the fiberglass vinyl along your pattern. (Most flooring professionals recommend this method.)

- Use a felt tipped marker to trace your pattern on the fiberglass vinyl then cut with heavy-duty shears. (Use this method sparingly as it is difficult to get straight and even cuts with shears.)

1. If it is not already, lay your pattern out on top of your unrolled fiberglass vinyl. The vinyl and your paper pattern should be facing up as it will be installed on the floor. Both the vinyl and the pattern should be smooth and flat.

> ✔ **TIP:** Remove the tape covering your cut out diamonds and replace with new tape. Press securely to the vinyl to help keep the pattern in place while you're cutting.

2. Carefully cut your fiberglass vinyl along the pattern. Cut out or around any obstacles or other items in your pattern.

> ▭ **NOTE:** Some professionals leave 3" on either side of their pattern along all walls. They will then cut off the excess once the vinyl is laid out in the installation area to ensure the vinyl fits flush with the walls.

3. Once the vinyl is cut, roll up and remove the pattern.

4. Carefully, roll up the fiberglass vinyl and take it into the installation area.

> ✔ **TIP:** Roll up the vinyl so that it can be unrolled in the direction you want to install it. Always have someone help you carry your vinyl into the installation area. Sheet fiberglass vinyl is heavy and bulky to transport.

Adhering the Fiberglass Vinyl to the Subfloor

Now that your fiberglass vinyl is cut, it's time to begin securing it to your subfloor. Semi-loose lay fiberglass vinyl is secured to the subfloor along two adjoining walls (preferably at the entrance to the room and along the wall with heavy appliances) as well as under appliances and in heavy traffic areas. Do not adhere the floor on opposite sides of the room as the vinyl will not be able to move freely in any direction. Overtime, this could cause bubbles in your floor.

To secure semi-loose lay fiberglass vinyl floors you can use:

- Acrylic double-sided tape
- Pressure sensitive adhesive

> **NOTE:** The procedures below describe the installation process for double-sided acrylic tape. If using a pressure sensitive adhesive, follow the manufacturer's guidelines for preparation and application. Always allow extra time for other types of adhesives to set up and become tacky, if recommended by the manufacturer.

1. After you've swept and vacuumed the subfloor, unroll and align your fiberglass vinyl in the installation area. Position all seams as they will be on the floor.

2. Evaluate your cutting job. Remove any excess where needed.

3. Determine the two adjoining walls that your fiberglass vinyl will be adhered to.

4. Carefully roll back the edge of the vinyl and apply strips of acrylic tape along the entire edge. Do NOT overlap pieces of tape.

   Place heavy objects such as a tool box or a few full paint cans on the other half of the fiberglass vinyl to keep it from shifting while you are rolling. If it does shift, make sure to reposition the sheet as necessary prior to securing it to the subfloor.

5. Remove the paper backing from each strip and carefully unroll the vinyl into place along the wall. Apply even pressure so that the fiberglass vinyl is secured to the subfloor.

6. Place acrylic tape in an "X" under each appliance. Press firmly down.

7. Repeat steps 4 and 5 along the second adjacent wall.

8. When you reach a seam, roll back one piece of vinyl and temporarily secure with masking tape. Apply a strip of acrylic tape under the edge of the fiberglass vinyl that is still on the floor. Do NOT remove the paper backing on the floor side. The seam will not be secured to the subfloor. The two edges of flooring will be secured to each other.

9. Unroll the masking taped vinyl and stick onto the other half of the acrylic tape. The two pieces of fiberglass vinyl should be aligned correctly and flush.

10. Apply seam sealer along the whole length of the seam. Follow the seam sealer manufacturer's recommendations for clean up and setting time.

11. Secure and seal each seam as you get to it.

12. The floor is now installed. Caulk and install moldings where necessary.

Installing a Full Spread Adhesive Fiberglass Vinyl Floor

The procedure for installing full-spread adhesive fiberglass sheet vinyl is the same as for felt-backed sheet vinyl. See the **Installing Felt Backed Sheet Vinyl** section starting on page **18**. Always follow your specific manufacturer's recommendations for adhesive application methods and open times.

SPECIAL CIRCUMSTANCE INSTALLATIONS

You are bound to run into obstacles and transitions during your vinyl installation. In this section, we'll discuss:

- **Vinyl Transitions and Moldings**
- **Working around Pipes**
- **Working around Heat Registers**
- **Working Around Fireplaces and Brickwork**
- **Installing Vinyl on Stairs**

Vinyl Transitions and Moldings

There are a variety of transition pieces and moldings to help you when working around doorways or between different types of flooring. These items come in a variety of colors, materials and styles to match your vinyl floor and surrounding décor. Transition pieces come in a variety of profiles to match the thickness of your vinyl. Generally, vinyl transitions vary according to the type of flooring you are transitioning to.

Carpet Transitions

When transitioning to carpet, there are a variety of generic transitions available:

- **Metal Transitions** – The most common type of transition piece. These usually come in silver or gold.
- **Vinyl and Rubber Transitions** – These come in a variety of colors to coordinate with the surrounding décor.

Carpet to Vinyl Transition Installation Methods

Carpet to vinyl transitions are installed via four different methods:

- **Metal Transitions (for Wood Subfloors)** – A pre-drilled flat metal bar is fastened with a matching screw to the subfloor to cover the area where the vinyl and carpet meet.
- **Metal Transitions (for Concrete Subfloors)** – A piece of nap-lock or clampdown metal is nailed or glued on top of the exposed edge of the vinyl. The carpet is then tucked into the other side of the metal and the metal is partially flattened with a rubber mallet to hold the carpet firmly in place.

- **Insert (Cap and Track)** – Available in vinyl and rubber. A "U" shaped track is nailed or glued to the subfloor at the edge of the vinyl. A T-shaped length of rubber or vinyl is snapped down into the groove. Since the bottom of the "T" is shaped like an arrow, the molding cannot work loose on its own. Use a construction adhesive or the adhesive recommended by the molding manufacturer.

- **Edgewise** – A brand name L-shaped transition which is used exclusively above wood subfloors with plywood or hardboard underlayments that are adjacent to carpet. The L-shape is fastened with nails or staples to the exposed edge of the underlayment. The top part of the molding sits flat on top of the vinyl to provide a clean, low profile transition. The nails or staples are hidden by the carpet.

Laminate, Hardwood or Tile Transitions

When transitioning to laminate, hardwood or tile, the transition should match or accent the other type of flooring. Most often these transition pieces will already be in place. However, if you need to install them, transition pieces include:

- **Reducer Strip:** This transition piece is used to join vinyl floors to flooring that is a higher. This is the most common molding for laminate, hardwood or tile when transitioning to vinyl.

- **End Molding**: This type of transition pieces is used to separate and transition to flooring that is lower than your vinyl such as carpet, tile, hardwood or laminate. It can also be used as a transition around fireplaces, sliding doors or any other outside door threshold.

  Most often your vinyl will be lower than other flooring surfaces in your home or office. However, if you installed a plywood or hardboard underlayment, your vinyl floor may be higher than a tile or hardwood floor. End molding goes by the following names: Baby threshold, square nose, universal edge or end cap.

- **T-Molding:** This molding is used between floors that are the same height. Most often your vinyl will be lower than other flooring surfaces in your home or office. However, if you installed a plywood or hardboard underlayment, your vinyl floor may be the same height as a tile or hardwood floor.

When installing molding, follow all the manufacturer's recommendations. If you need additional information, see one of the other **FindAnyFloor.com** installation guides for the type of flooring you are transitioning to (such as laminate or tile). Each installation guide contains specific information for installing transitions for that flooring type. Installation procedures may differ depending on the subfloor type, type of flooring and how the other flooring was installed.

Trim Options

You'll install trim along all walls and around obstacles to hide the expansion spacing and give the room a finished look. The most common types of trim include:

- **Wall Base:** This molding is placed along the bottom of the wall. Wall base can also be used under cabinets.

- **Quarter Round:** This molding is placed along wall base above the flooring. It can also be used under cabinets if wall base is too large or at the bottom of stairs for aesthetics.

Working around Pipes

Working around pipes can be tricky for both sheet vinyl and vinyl tile installations. Making a template of the pipe and the distance from the wall can help you install your vinyl flush with the pipe.

1. Measure the distance from the center of the pipe to the wall. Subtract your contraction spacing (usually 1/8"), if required.

2. Using a piece of Kraft paper, align a carpenter's square so it touches the edge of your paper (the wall) and extends the length of your measurement (the center of the pipe). Draw a straight line.

3. Draw a circle matching the pipe's diameter around this center point.

4. Cut out the circle and line on your Kraft paper. Leave a ½" or so on either side of the line. It is only to help you measure the distance from the wall to the pipe.

5. Slide the template around your pipe. If necessary, cut through one edge of your circle template and position around the pipe.

6. Evaluate the fit and make any adjustments.

7. Once you are satisfied, tape it to the rest of your pattern for sheet vinyl installations or use it to help you cut a suitable vinyl tile to fit around the pipe. Always seal any seams made behind pipes according to the manufacturer's recommendations.

Working around Heat Registers

If you are installing sheet vinyl, account for floor heat registers in your pattern. Be sure to remove the decorative grill and install the vinyl flush with the duct in the floor.

For vinyl tiles, try to make a precise cutout of the register in one or more tiles.

1. Place the full vinyl tile in position above the register.

2. Use a pencil to outline where the vinyl tile overlaps the duct.

3. Use a hair dryer or electric heat gun to soften the vinyl tile. Once more pliable, cut along your outline.

4. Place the vinyl tile back over the duct to evaluate your cut. Trim as needed.

5. Once sized correctly, install as you did for the rest of your floor.

Working Around Fireplaces and Brickwork

Install your vinyl up to fireplaces or brickwork as you would a wall. Once installed, caulk the entire edge of vinyl around the fireplace to keep the edge from rolling up. You do not need to undercut the brickwork or add any additional molding.

Installing Vinyl on Stairs

Vinyl should NOT be installed on full staircases for safety reasons. Vinyl is designed for flat, level surfaces. Rubber or vinyl stair treads can be used; however, these are quite expensive and should only be installed by an experienced professional.

Vinyl can be installed over one or two steps in certain areas (such as those leading into a sunken living room or garage). Take care if installing in one of these applications as vinyl is slippery even when dry. Consider adding metal stair nose to help reduce the possibility of slipping.

COMPLETING THE JOB

Congratulations! You're almost done installing your vinyl floor. All that's left to do is:

- **Installing Wall Base and Quarter Round Trim**
- **Caulking Your Floor**

Installing Wall Base and Quarter Round Trim

Installing the wall base and quarter round trim hides the edges of the vinyl as well as puts the finishing touches on your room. Base shoe molding can be used instead of wall base in areas where wall base will not fit (such as under cabinets).

1. Measure and cut the wall base and quarter round trim for your installation area.

2. Using a construction adhesive, apply a thin, wavy line down the length of the wall base molding.

3. Gently press the wall base molding against the wall. Nail the molding to the wall at an angle every 16". Do not nail or glue to the vinyl.

    Undercutting Molding   Butting Against Molding

    Wall Base Molding

    > ✔ **TIP**: Always nail the wall base to the wall at an angle. If you nail straight into the wall, the nails may not hold well into the drywall.
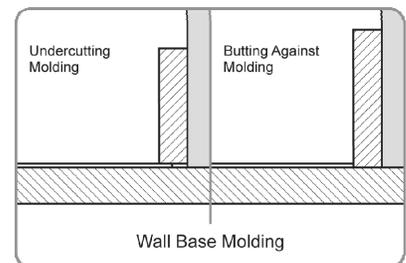
4. Apply a thin, wavy line down the length of the quarter round molding.

5. Gently press the quarter round molding to the bottom of the wall base molding so it fits snugly against the flooring. Nail the molding to the wall at an angle every 16". Do not nail or glue to the vinyl.

    Undercutting Molding   Butting Against Molding

    Wall Base and Quarter Round Molding

    > ✔ **TIP**: Always nail the wall base to the wall at an angle. If you nail straight into the wall, the nails may not hold well into the drywall.
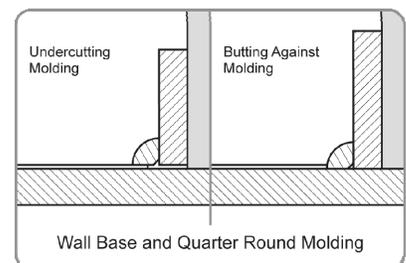
Caulking Your Floor

Applying caulk to the perimeter of your vinyl is a good way to help protect your subfloor from moisture. Use flexible, mildew-resistant silicone caulk to seal around bathtubs, showers, or other wet areas. If you did not remove your based boards, caulk the perimeter of the room to ensure the vinyl does not peel up around the edges. Areas that will be covered by molding or transition pieces do not need to be caulked unless you are concerned about moisture in these areas.

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