

Residential Sheet Vinyl Installation Guidelines

STORAGE AND HANDLING

All resilient products must be stored in a protected interior location, ideally one that can be climate controlled. Optimum storage temperatures are between a low of 65°F and high of 90°F. Additionally, the humidity of the storage area should be controlled and maintained between 30% and 70%.

Always store resilient sheet products tightly rolled, face-out on a sturdy cardboard core designed for that purpose. For 12' wide resilient flooring, store the roll horizontally and support it across the entire width. You may also store 6' wide resilient flooring vertically (on edge). You must follow these storage recommendations to prevent compression and distortion of the resilient sheet materials.

Flooring products can be heavy and bulky. Be good to yourself and always use proper lifting techniques when handling these products. Whenever possible make use of material-handling equipment such as dollies or material carts. Never lift more than you can safely handle; get assistance. Flooring products can be damaged by rough handling before installation. Exercise care when handling and transporting these products.

Before starting the job, always check the flooring materials to ensure they are the correct pattern, style, and color. Also make sure that the size and amount of the products are sufficient to complete the installation. Inspect the materials closely before installation for any visible defects. Mannington Flooring products are manufactured to high quality standards and are carefully inspected before leaving our facility. Occasionally, however, defects are not detected. If you notice a visible defect in the flooring product, stop the installation and contact your local Mannington salesperson for assistance.

NOTE: Mannington Floors will not pay labor charges on claims filed for materials installed with obvious visible defects.

JOB SITE CONDITIONS

The environment where flooring products are installed is critically important in regard to successful installation and continued performance of the flooring products. Mannington Flooring products are intended to be installed in interior locations only. These interior locations must meet climatic and structural requirements as well.

Temperature Requirements

Do not install flooring products until the work area can be temperature controlled. We recommend that the work area be maintained at a minimum temperature of 65°F and a maximum temperature of 90°F for 48 hours before, during, and after the installation. This requirement can seldom be fulfilled with temporary space heaters. A permanent heating or cooling source should be operational before proceeding with the installation of any flooring product. For the entire life of the floor, the temperature should never fall below 55°F. If this minimum temperature cannot be maintained, the performance of the flooring products and adhesives can be adversely affected. Ideally the job site relative humidity will be maintained in the 40% to 50% range.

You may install all Mannington flooring products over hydronic radiant-heated flooring systems only, provided the surface temperature of the system does not exceed 85°F. Before installing flooring products over newly-constructed radiant heating systems, operate the system at maximum capacity to force any residual moisture from the cementitious topping of the radiant heating system. Then set the thermostat to a comfortable room temperature for the installation. For the smoothest job and best results, always condition flooring, adhesives, and installation accessories to the job site temperature before beginning the installation. There are many in-floor warming systems being introduced, while most of these systems are compatible with rigid products such as ceramic or hardwood, they are generally unsuitable with resilient flooring products. Always check with the flooring manufacturer before covering these in-floor warming systems.

Structural Requirements

The structural integrity of the job site is critical for satisfactory flooring installation. The type and method of construction, grade level, and flooring system components all impact the installation of flooring products. Many times local building codes establish only minimum requirements for flooring systems. These minimum requirements may not provide sufficient rigidity for successful installation and continued performance of flooring products. Structural flooring systems are constructed of either concrete (or cement like materials) or wood. The description of each of these structural flooring constructions is presented in the General Installation information in Section I.

For more comprehensive information, contact the manufacturer of the particular flooring underlayment system. The American Concrete Institute and APA The Engineered Wood Association, aka the American Plywood Association can provide details for their respective products.

RESIDENTIAL TRIPLE OPTION INSTALLATION

General Instructions

Before beginning any installation, carefully read the General Installation Guidelines described on pages 6-10. We have designed the Triple Option installation method for use with all Mannington running line felt-backed Residential Resilient sheet products. **(The product must be 12' wide. The Triple Option installation method cannot be used with 6' roll goods.)**

Triple Option Installation Methods

Mannington's Triple Option installation methods simplify the installation process of Mannington Residential Resilient felt-backed flooring product. The preferred method for felt back installation is fully adhered. Triple Option lets installers match the installation technique to the job site conditions. The three installation methods are:

- **Fully Adhered:** The Fully Adhered technique has a long history of proven success. It's the best option in areas subjected to heavy foot or rolling traffic, or in more complex job sites with multiple alcove drops, center islands, or when intricate net-fit cutting is required.
 - o Acceptable substrates are clean, dry, smooth, and include both wood panel and concrete subfloors.
 - o This technique becomes an installer's only option if:
 - the vinyl roll is distorted or not rolled face-out on a 4" core
 - the backing becomes kinked, cracked, or severely folded during installation
- **Loose Laid:** Loose Laid is the easiest of the Triple Option installation methods. Using this method, the vinyl is fit just slightly short of all vertical surfaces (minimum 1/8" away) so that it lies completely flat with no fullness or "pinch" points. This installation method makes removal of the floor at the end of its life cycle remarkably easy.
 - o Loose-Laid floors can be installed over many substrates that are unacceptable for Fully Adhered products (particleboard, chipboard, flakeboard, lightweight concrete).
 - o This non-adhered installation method allows the material to be rolled back to correct any substrate problems and is easily removed when required.
 - o Although the floor is referred to as Loose Laid, V-31 adhesive is necessary at all seams and around any floor vents.
 - o Restrictive and transition moldings are required.
 - o **Loose Laid should not be used if the job site:**
 - is larger than two full drops of material
 - is greater than 30' in length
 - is exceptionally "cut up" and complex
 - o **Loose Laid is not an option if:**
 - the roll is distorted
 - the roll is not rolled face-out
 - the felt becomes kinked, cracked, or severely folded during installation
- **Perimeter-Fastened:** In a Perimeter-Fastened installation, the sheet vinyl is fastened to an acceptable substrate around the perimeter of the work area and at any product seams. This installation method makes removal of the floor at the end of its life cycle easy.

- o Using this option, the vinyl can be installed over many types of substrates that may not be appropriate for a Fully Adhered installation (particleboard, chipboard, flakeboard, lightweight concrete).
- o Perimeter-Fastened installations require that the product be adhered with a 4" to 6" band of V-31 adhesive applied with a 1/16" x 1/32" x 1/32" notched trowel around the perimeter and at any seams.
- o If the substrate is wood, the product can be fastened using staples.
The staples should:
 - have at least a 1/2" crown
 - be of sufficient length to fully seat into the underfloor panels
 - be spaced every 2" around the perimeter of the room
 - be applied after the adhesive when a combination of staples and adhesive is being used
- o Restrictive moldings (cover base, quarter round, etc.) and transition moldings must be used in a Perimeter-Fastened installation.
- o **Perimeter-Fastened is not an option if:**
 - the job site and material are not conditioned and climate controlled. This is particularly important in new construction.
 - the roll is distorted
 - the roll is not rolled face-out
 - the felt becomes kinked, cracked, or severely folded during installation

Whichever option an installer chooses, it's important to:

- o Employ good resilient sheet flooring work practices regarding the careful handling and fitting of the products.
- o Be vigilant in underfloor selection and preparation.
- o Install in indoor climate-controlled (temperature and humidity) environments.

Cutting and Fitting

You may use pattern scribing, freehand knifing, or direct scribing techniques when installing Mannington felt backed resilient products. The material is flexible and will handle easily when cutting and fitting. Always fold the material in a wide radius to avoid sharp kinks and creases that may cause breaks in the backing. You may flash cove all Mannington products that are fully adhered or perimeter-fastened (see pages 41-42). Thoroughly sweep the surface after you have completed the entire substrate preparation. Be sure to carefully vacuum or sweep around the perimeter of the room to remove loose dirt and debris.

One Piece Installation

Precut the floor covering to fit the area, allowing 2" to 4" extra length and width for fitting. Position the resilient flooring in the room, allowing enough material to drop into offsets, closets, alcoves, etc.

Align pattern squarely in room, parallel to all walls. If the room is not square, align the pattern so the run-off is located in the least conspicuous area.

HINT: When aligning resilient flooring with straight line patterns, avoid positioning a pattern line next to the wall. If the line falls several inches from the wall, any pattern runoff caused by an out-of-square room will be less noticeable. After the sheet is positioned, weigh it to prevent shifting. Make relief cuts around unusual objects such as pipes, fixtures, floor registers, etc.

Make relief cuts on all inside and outside corners. Rough-cut the sheet to remove excess material. Trim and fit the perimeter so the floor covering lies flat before adhesive is spread.

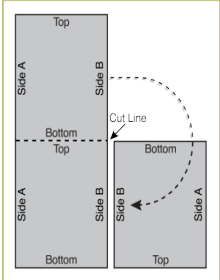
Seamed Installation

Fit and cut the first sheet as in a one-piece installation and weigh this sheet to prevent it from shifting. (Use floor roller, toolbox, adhesive container, etc.) Position the second sheet in the room and align it to the first sheet for accurate pattern match. Once you have achieved pattern alignment, weigh the second sheet to prevent it from shifting.

Before positioning the resilient flooring material in the room, determine the best possible placement of the seam and the dry zone. Snap a white chalk line indicating where the seam will be positioned. Snap two white chalk lines 18" on either side of the seam chalk line.

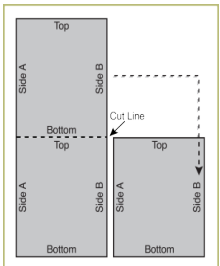
Pattern Matching

When your work area requires more than one sheet of material, provide additional length on the second and succeeding sheets to allow for proper pattern alignment. Install Mannington Resilient Floors using either the “Reverse” or “Do Not Reverse” method.



“Reverse” Method

“Reverse Sheets for Seaming” means turning the second sheet 180° to the first sheet. To determine the amount of additional material required to assure proper pattern alignment when the “Reverse Sheets” method is recommended, cut the first sheet at least 3” longer than the net room requirements. Cut the second and all succeeding sheets to this length plus the length of the pattern repeat.



“Do Not Reverse” Method

“Do Not Reverse Sheets for Seaming” means placing the opposite selvage edges together. To determine the amount of additional material needed to align patterns in “Do Not Reverse” designs, cut the first sheet 3” longer than the net room requirements. Cut the second and all succeeding sheets to the next multiple of the pattern repeat over the net room dimension, providing the starting wall is the same.

Minimizing Pattern Run-Off

To minimize pattern run-off, cut the material to the appropriate sizes the day before the actual installation. (Remember, always store material at its recommended temperature.) When you have completed cutting the resilient sheet, tightly roll the cuts face-out around a core, maintaining as equal diameter as possible. When cutting and storing the flooring pieces, remember that each piece must be installed in sequential order. If you need more than one roll of floor covering, make sure that all rolls are marked with the same shade letter.

You can correct pattern run-offs during installation. You may “shrink” or compress the design by tightly rolling the sheet face-in. To stretch the design, tightly roll the material face-out.

Begin pattern matching in the center of the sheet. This method divides any pattern run-off toward the end of each sheet.

NOTE: All Mannington residential rotogravure 6’ wide material is split from 12” wide rolls, thereby leaving only one true selvage edge. Installations with only one seam will not present a problem. As long as you reverse the sheets, they will overlap with selvage edge to selvage edge. With the third sheet, however, you may find it necessary to move the sheet by the width of one design unit to obtain a proper pattern match. On 6’ wide “Do Not Reverse” patterns, you may have to move the sheet by one design unit to provide proper overlap and pattern alignment at all seams.

It is important to obtain accurate overlap of the selvage edges to ensure pattern match across the sheets, as well as along the length of the seam. There are several techniques you may use to determine proper overlap. The first method is to cut notches or “windows” along the selvage grout line. These notches will allow you to see the overlapped grout line and will assist you in positioning the second sheet. The second method Mannington recommends to determine proper overlap is to measure the design elements across the first sheet with a tape measure to determine the pattern repeat and then transfer this measurement across both sheets to assist in the positioning of the second sheet.

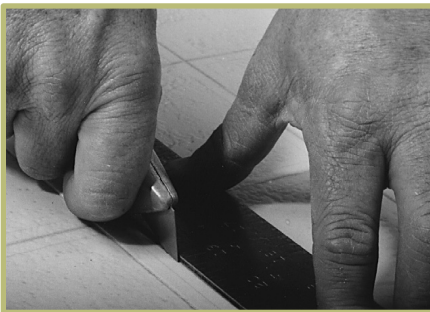
Seam Cutting

Seaming is one of the most important aspects of resilient sheet installation. It is often the sole criteria for judging the entire installation. We cannot emphasize enough the importance of taking the time to ensure a properly aligned, cut, and sealed seam. Always double-cut seams in Mannington Residential felt-back products with a new, sharp utility knife blade. Use a steel straightedge as a guide. A dull blade will not produce an acceptable seam. If the seam is long, or if it is being cut on a concrete underfloor, we advise sharpening or changing blades as needed. It is also good practice to remove any oily, protective coating on the new blades with a clean cloth before starting to cut the seam.

Double-Cutting of Seams

The most accurate method for cutting seams in felt-backed and fiberglass-reinforced vinyl back products is double cutting. When double cutting, both sheets are cut at the same time. This ensures the edges of both sheets are cut exactly the same, with no gaps or fullness. Many of today's resilient flooring patterns feature very narrow grout or design lines. It is very difficult to align and cut these narrow lines in the exact center. Because the grout or design lines are often the focal point of the pattern, it is extremely important to maintain the exact width of these grout lines throughout the entire installation. The most accurate method of maintaining the line width is to make the seam cut along the side of the grout line.

Cut the seam net, not full. Keep the knife blade parallel to the straightedge, at a 90° angle to the floor covering. Position the knife to allow as much of the cutting edge of the blade as possible to come in contact with the floor covering. It is difficult to keep the utility knife steady if only the point of the knife is riding on the floor.



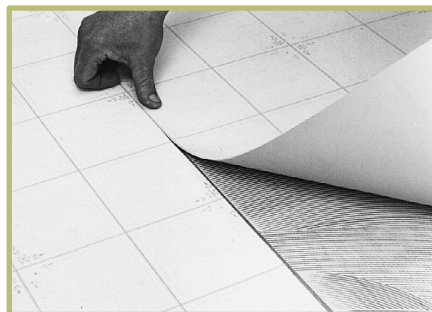
With the sheets aligned, position the steel straightedge so it completely covers the grout line of the top sheet. Using the straightedge as a guide, cut the length of the seam in the "shadow" of the grout line with a utility knife. This technique will ensure that all grout lines are of the same width. This is important, since you will completely cut away the bottom sheet grout line and will leave the grout line of the top sheet intact.



Once the seam is cut, remove the selvage edge and turn back the material to expose the subfloor.



Apply adhesive as required with the chosen installation method.



Carefully place the second sheet into position.



Thoroughly clean the seam area with a clean white cloth and wipe dry. Remove any adhesive that has dried on the surface with a clean white cloth dampened with a good quality-grade mineral spirits or painter's naphtha. Avoid wiping down or across the seam cut with a soiled cloth. Keep the seam cut free of soil, adhesives, or contaminants.

Apply adhesive as required with the chosen Triple Option installation method.

ADHESIVE RECOMMENDATIONS & APPLICATION

Mannington strongly recommends that when residential felt-backed products are to be fully adhered to an approved underfloor, you use Mannington V-31 adhesive (see page 15).

Adhesive Application – Fully Adhered Products

Apply adhesive with the following recommended notched trowels.

- For porous and nonporous substrates: Use a trowel notched 1/16" wide, 1/32" deep, and 1/32" apart

It is always a good idea to allow "open time" for the adhesive before laying the sheet down. Open time is the elapsed time between when the adhesive was spread and when the floor covering material is positioned into the adhesive. This allows moisture to "flash off" the adhesive, permitting the adhesive to develop more body and tack. Open time is always dictated by the underfloor porosity and atmospheric conditions. Make certain to provide ample open time on nonporous substrates and at seam lines.

After trimming the material to fit the room, tube or lap it back to expose approximately one-half of the underfloor. Strike a white chalk line near the fold of the material. This line provides a guide for adhesive application. Spread the adhesive, leaving no gaps, voids, puddles, or thin spots, over 100% of the exposed underfloor. Keep the trowel clean and properly notched to maintain this uniform coverage.

After the adhesive has begun to tack up, gently position the sheet into the adhesive. Roll the floor covering forward into the adhesive to eliminate trapping air. Do not drop or flop the material into the adhesive. Using a 75 lb. (or heavier) three-section floor roller, roll the material in both directions, starting in the middle of the sheet width and rolling toward the edges. This process eliminates air and embeds the floor covering into the adhesive. Roll areas that cannot be reached with a floor roller with a hand seam roller.

Failure to roll the floor covering can result in the following problems:

- **Lack of bond between material and underfloor**
- **Telegraphing of adhesive ridges**
- **Permanent indentations when heavy items are placed on the new flooring, resulting from adhesive displacement**

Once the first half of the material is adhered and rolled, fold back the second half and repeat the procedure. When folding back the sheet use extreme caution to prevent tearing the felt backing at the glue line. Also, be careful to regulate the adhesive spread at the glue line. This will avoid an adhesive ridge left in the center of the sheet.

Adhesive Application – Perimeter-Fastened

When installing resilient sheeting using the Options Felt Backing Perimeter installation system, the material is only fastened around the perimeter of the work area as well as at all seam lines. Fasten the material using either Mannington V-31 Premium Latex Adhesive or staples.

Once the material has been fit, tube or lap back the flooring material and re-sweep the underfloor and back of material before fastening the product. Spread Mannington V-31 adhesive with a standard 1/16" x 1/32" x 1/32" notched trowel in a 4" to 6" wide band around the perimeter of the room. Thoroughly roll the material into the adhesive using a hand roller to ensure adhesion and to flatten out any adhesive ridges. Re-trim any fullness that may have occurred in the resilient sheet.

Adhesive Application – Loose Laid

Even though adhesive is not required when using the loose-laid method, it is essential to apply an 8" band of V-31 adhesive at all seams, and around any floor vents. Apply an 8" wide band of V-31 adhesive centered on the seam cut. Allow enough open time for adhesive to tack up, but do not allow adhesive to form a skin, or over dry. Reposition the cut seam edges and roll the material into the adhesive using a hand roller. Exercise care to help prevent adhesive contamination in the seam cut.

NOTE: It is impossible to obtain an accurate pattern match when turning material 90° to another sheet. This method of "quarter turning" the material may also cause shade and texture variation. For these reasons, Mannington does not recommend "quarter turning" of any of our resilient floor covering products.

Seam Sealing

Before beginning the seam sealing process, thoroughly clean the work area of all scraps, soil, tools, etc. The long-term performance of any seam cut into a resilient sheet product depends on several significant requirements.

The most important of these is the selection and application of the appropriate seam sealer for the type of resilient sheet being seamed. It is the flooring installer's responsibility to use only recommended sealers and to be proficient in their application.

CAUTION: These adhesive solvents are flammable. Follow all precautions listed on the cans.

Avoiding adhesive contamination of the seam cut is another critical requirement. Mannington seam sealers consist of a solvent (THF) and a resin (PVC). The solvents cause the edges of the seam to "melt" and permit the resins to "attach" to each edge of the seam. This process results in a chemical weld. Adhesive forced up into the cut will adhere to the edges of the sheet, inhibit solvent action, and prevent a chemical weld from occurring. Additionally, adhesive forced into the cut creates a discolored line at the seam.

NOTE: We recommend waiting 24 hours to return the furniture or appliances to the room; circumstances, however, may otherwise require it. If so, replace appliances before starting seam sealing. Always use wood or hardboard runways when moving furniture and/or appliances, even when using an appliance dolly.

Seal seams in Mannington Resilient floors immediately after installation with the recommended Mannington seam sealer. This seam sealing process provides a continuous, impervious surface that will be as strong as the resilient surface and will remain intact for the life of the flooring.

Mannington offers two types of residential seam sealers:

- **MLG 33 (#832233)** Low Gloss Sealer (two-part seam sealer) is designed for Mannington products with a low gloss vinyl or urethane-based wear layer.
- **MSS 20 (#832202)** Standard Gloss Sealer, available in one-pint containers, is for all vinyl wear layer products.

Use the VST-96 Professional Applicator Kit (#832204). See next page for sealer instructions.

The Versatile Sealing Tip (VST) is used to chemically seal all Mannington resilient sheet products. The VST is included in the Professional Applicator Kit, and the MLG 33 Low Gloss Seam Sealer Kit. Be sure to order the Professional Applicator Kit separately when you order a seam sealer other than MLG 33. The VST's unique, ergonomic design offers many benefits. The all-composite plastic tip will not leak. The plastic fin will not cut or mar the resilient sheet's seam. The flat "landing face" on the tip provides just the right angle and keeps the bottle steady during application. The flat, angled head has ridges (texture) and lets you apply a firm, downward pressure on the applicator tip without getting tired.



Before sealing the seam, make sure the seam cut is clean, dry, and free of adhesive contamination. Shake the seam sealer container to blend the ingredients and allow air bubbles to disperse (usually 15 minutes) before pouring sealer into the applicator bottle. Fill the bottle at least 2/3 full with the appropriate seam sealer and tightly screw on the VST applicator tip.



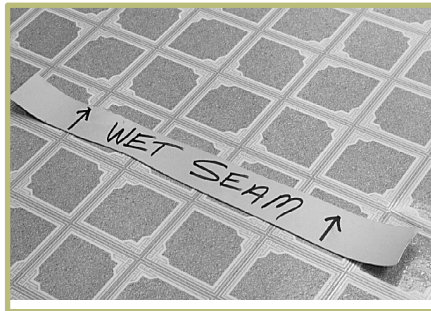
Check the flow of sealer through the applicator tip on a scrap piece of material before use. If the flow is restricted, insert the cleaning wire into the tip to clear the obstruction. Insert the plastic fin of the VST slightly back from one end of the wall and push forward to make full penetration of the fin. Use your forefinger to apply a downward pressure on the flat, textured "head" of the VST.



Gently squeeze the bottle to start the flow of the sealer. In a slow, continuous motion, pull the applicator along the length of the seam. The correct angle of the applicator tip to the seam is determined by the flat support or "landing face" of the VST. Most importantly, once the tip is inserted into the seam cut, it does not need to be removed until the seam is sealed, ensuring complete sealer application along the entire length of the seam.



Seam sealer flow will stop when hand pressure is removed. This allows you to leave the applicator inserted in the seam cut when you reposition yourself along the length of the seam. This helps eliminate the chance of sealer skips caused by repositioning the applicator during seaming.



You must apply seam sealer into the seam cut and leave a bead of sealer approximately 1/8" wide centered on the seam. This applies to all Mannington Residential products. To avoid walking on the seam, mark it with a scrap piece of floor covering.

Remember, it is crucial that the seam sealer be applied to the full thickness of the floor covering from top to bottom. To ensure a strong, tight seam, make certain there are no skips or voids along the cut.

Allow seam sealer to completely dry before walking on the seam or moving furniture over it. We recommend waiting 24 hours.

NOTE: When using two-part seam sealer kits, it is necessary to combine the entire contents of parts A & B (see page 17). Once mixed, two-part seam sealers cannot be saved for reuse.

REPAIRS

Small Cuts

Small cuts will eventually gap open. To repair, clean and compress the material. When the cut is closed, place paper masking tape around the area. Clean dirt from the cut and apply seam sealer. Remove masking tape after 24 hours.

Replacing Damaged Areas – Plugs

If you must replace a damaged area, follow these steps:

- Select a design element from the scrap material that matches the design to be removed from the existing resilient.
- Place wide masking tape around the damaged area to hold the floor from pulling back too much.
- Cut on the inside of the grout line, if possible, and remove the damaged piece. If the floor covering you are repairing is installed over existing resilient flooring, be careful not to cut too deep.
- Cut plug from scrap material.
- Lift edges of flooring and apply a band of adhesive carefully under the flooring and in patch area.
- Hold flooring up slightly with a knife or screwdriver to allow in sufficient air circulation to tack up the adhesive.
- Put the patch piece in place and tape two sides securely.
- Slightly warm the Perimiflex flooring and pull it into place until it fits to the patch. Tape securely and roll with a hand roller.
- After 1/2 hour, remove the tape one side at a time. Clean any adhesive that may have squeezed into the seam by passing the back side of a hook knife through the area.
- Apply seam sealer. Cut scrap material in 1/2" widths and place on each side of the seam. Tape over top of these "bridges" to hold material in place while the sealer dries. Do the same procedure with "bridges" on each side of the patch and leave for 24 hours.

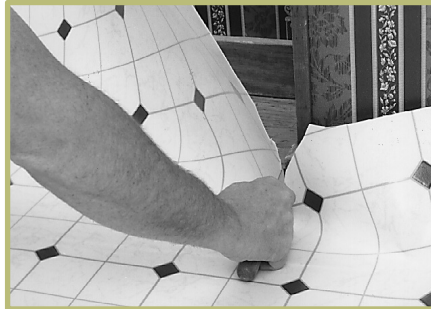
RESILIENT INSTALLATION TECHNIQUES

Freehand Knifing

All Mannington Residential Resilient products can be fit using the freehand knifing technique. Freehand knifing is accomplished by fitting the material to the room with about 2" of the product lapped up the wall. Avoid using this technique with inlaid resilient products because if they are folded they may break and crack.



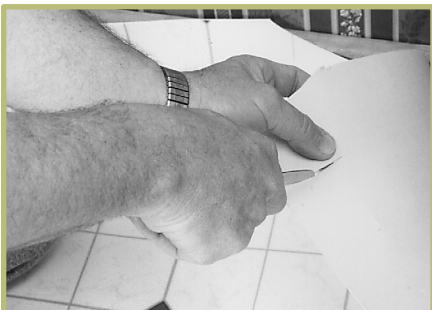
Using a sharp knife held parallel to the wall, trim away the excess material until the product is flat on the floor. Hold your cutting hand so the palm faces the wall and is out in front of you within your comfort zone. Ride the knife point at the juncture of the floor and the wall. Make sure the knife blade is flexible enough to allow some pressure to be applied to it. Hook knives and Ward type knives work well, but utility and Airway type knives do not.



Make outside relief cuts with the floor covering held back from the corner. Cut the material from the face. You can use a pattern design line as a guide to ensure there will be sufficient material to fall around the corner.



Make inside and outside corner relief cuts before trimming walls. When making any relief cuts, make them all to one side of the room first. If you need to shift floor covering, you can shift it into the cuts. If you make relief cuts on both sides of the room, when you shift the floor covering you will be short of material on one side or the other.



Cut a "V" when making inside relief cuts. Use your left hand to find the corner with your thumb and forefinger. Place them over floor covering into corner about 2" up the wall. Make outside relief cuts with the floor covering held back from the corner. Cut the material from the face.

Pattern Scribing

Pattern scribing can make installing resilient flooring in those “impossible” areas much easier. By carefully making a template of the room and then removing all excess material, you can turn a difficult job into an easy, perfectly installed floor. Follow the steps below.

When using multiple pieces of scribing paper, carefully butt the sheets together and draw reference lines across both sheets for proper alignment later. Using a roofing square or pencil dividers, transfer the outline of the area being scribed onto the scribing paper. If you're using both a square and dividers, set the width of the dividers to match the width of the leg of the square to minimize mistakes. We advise making lots of notes on the paper.



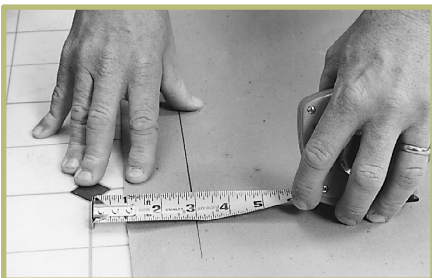
After all preparation is complete, place scribing paper on the area to be covered. Place the roll-set (curl) downward to make paper positioning easier.



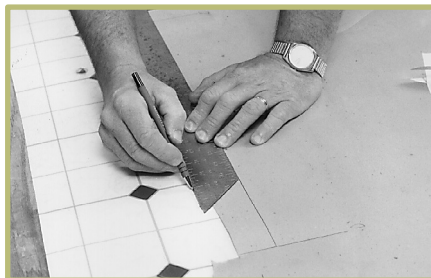
Cut windows in the paper to expose the subfloor and then use masking tape to hold the paper in place. Paper should be rough trimmed using a utility knife to 1" from all obstructions.



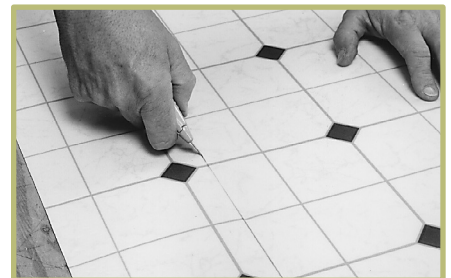
Pencil dividers make it easier to scribe irregular-shaped obstacles. Keep the dividers at a 90° angle to the item being scribed in order to keep the scribe accurate.



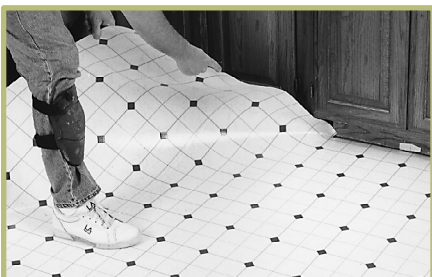
After you have transcribed the entire area to the paper, carefully remove the pattern and place it on the resilient floor covering to be used. Take the time to square the pattern to the resilient floor covering using a tape measure or ruler and be sure to center the pattern.



Using the same roofing square or dividers, transfer the marks on the pattern to the sheet goods, making a perfect duplicate of the floor. Be sure to keep the dividers set to the same measurement you started with and use the same leg of the square you used to make the pattern. To ensure correct pattern transfer, the person who performed the pattern scribing should also transfer the pattern onto the resilient flooring.



Follow the pencil marks on the surface of the resilient with a knife or scissors. Use caution so you don't damage the underfloor you're working over. A hookblade utility knife may make this easier.



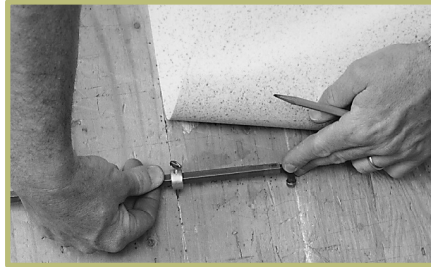
Now that the transfer and cutout are complete, the material is ready to be installed. The floor covering is an exact duplicate of the floor, with all excess material removed and all cuts made for possible obstacles. Place the material into the room and fasten as required.

Direct Scribing

Direct scribing, also known as three-wall scribing, can be used with all Mannington products. Generally this fitting technique is used when the installation area is not complicated.



When installing 6' wide resilient flooring, snap a chalk line 6" off the wall. Also, make two additional reference marks in the center of that area. Snap a chalk line marking the center of the sheet on the floor and mark that same distance with a piece of tape on the wall.



Position material squarely in room with about 2" flashed up each end of wall. Material should be positioned against the long wall overlapping the 6" reference line. Trace the edge of the sheet with a pencil marking onto the subfloor. Set dividers, or bar scriber if you need to transcribe deeper offsets, to the distance between the edge of material (pencil mark) and reference line.



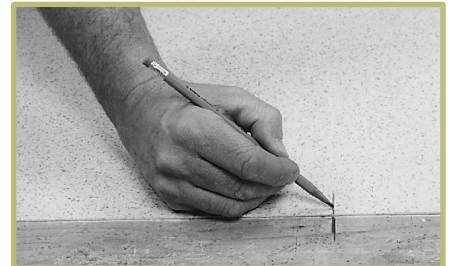
Scribe the contour of the long wall to the resilient flooring with the set bar scriber.



Cut resilient flooring with a hook blade knife along the scribed line.



Slide the resilient flooring to the wall. The sheet should now be positioned on the 6" reference line and next to the long wall.



Now fit the two remaining walls, which we will name Wall A and Wall B. Make a reference mark (key mark) at the edge of the resilient sheet extending onto the subfloor with a pencil. Place a piece of tape on the long wall (the opposite edge of the sheet), visually aligning it to the pencil mark you just made on the resilient and subfloor. You will now have a reference mark on the right side of the sheet and a reference mark on the left side.



Slide the flashing sheet away from the wall (Wall A) until it lies flat on the floor and against the wall. Go back to the key mark you made on the resilient and subfloor and you will notice the mark is no longer in alignment. Set your bar scriber or dividers to that difference.



Slide the resilient flooring to the wall. The sheet should now be positioned on the 6" reference line and next to the long wall.

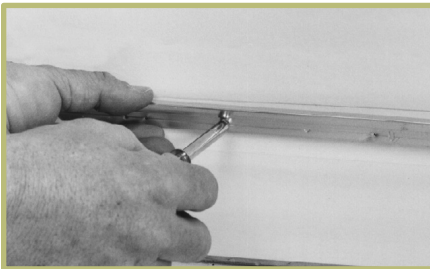
With the dividers properly set, go back to Wall A and scribe the contour of the wall to the material. Cut the material along the scribed line.



Shift the sheet back on the key marks. When the key marks are aligned, the material will fit next to Wall A. Repeat the process for the opposite wall, Wall B.

Flash Coving Resilient Sheet Products

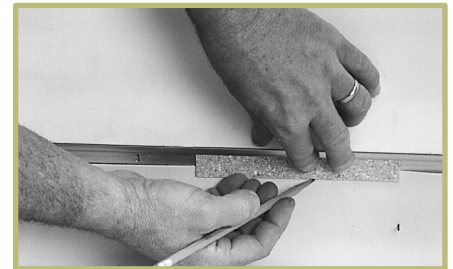
All Mannington Resilient sheet goods can be installed using the flash coving method. This edging technique, often preferred by hospitals and other healthcare facilities, is a process of extending the resilient flooring up the wall to create a wall base. Normally, the floor covering is extended up the wall to a height of 4" to 6". Coving is popular with end-users because it eliminates the need for a floor/wall juncture and it is also easy to maintain. As with all resilient installations, proper preparation of the work area is critical to the success of the installation. Clean the under floor carefully and make certain it is structurally sound. The juncture of the floor and wall also needs special preparation before beginning a coved installation. Follow the instructions below to install the cove cap and the cove stick (cove fillet strip).



Measure desired height for the cove caps at each corner and strike a chalk line. Attach aluminum or vinyl cove caps at this height using flathead nails with a hammer or brad pusher, or use contact cement. Always miter inside and outside corners in the cap. When mitering the outside corners, file the ends of the cap smooth. You can use a specially designed miter tool with interchangeable die sets to make corners on the cove cap. This tool eliminates sharp edges at the outside corners.



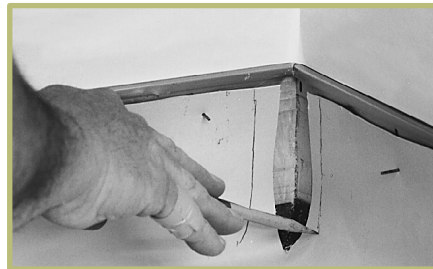
Cove stick supports the resilient flooring as it is flashed up the wall, eliminating the chance of puncturing the resilient flooring. Firmly secure plastic or wood cove sticks where the floor meets the wall with adhesive or nails. Use nonstaining nails and set them flush with the stick. The stick should have a minimum radius of 1 1/8" and be precisely mitered at all inside and outside corners. Provide a smooth transition in the door casings and other areas where the coving ends by cutting back the cove stick.



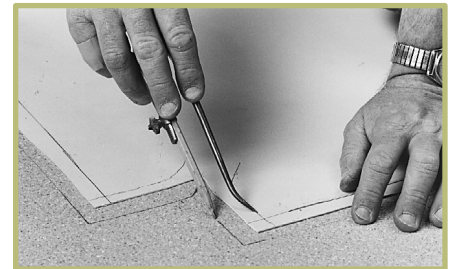
Tack the scribing felt to the wall with brad type nails before you begin to scribe it. Use a combination square, a small metal ruler, or a 1" piece of resilient to pattern scribe the felt. Fit the scribing tool up inside the cove cap and scribe the felt by sliding the tool along the cap as you mark the felt with a pencil.



Scribe and cut the outside corners of the felt using a utility knife.



Scribe the inside corners of the felt using dividers.



After scribing the entire work area, position sheet flooring and transcribe the pattern with pencil dividers. Be careful when cutting the material on the inside and outside corners.

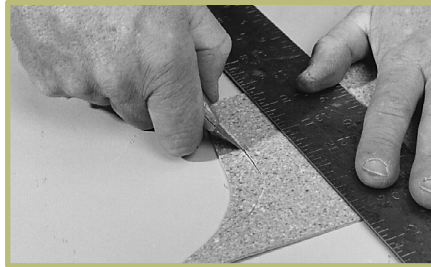


Dry fit the material. Inside corners should fit snugly, but not be forced into position. Make sure to always position the shorter side first and then the longer side. Gently pull the material away from the wall.

Apply the appropriate adhesive to the floor, wall, cove cap, and cove stick. Allow the appropriate amount of open time. Fit the material back into place. Remember to always position the shorter side first. Roll the flooring with the appropriate size roller (use a hand roller on coved areas). Apply the appropriate seam sealer at all seams, following the recommended directions for the resilient floor you are installing.



The most demanding aspect of a coved installation is forming the outside corners. Fill outside corners with a boot-type plug, rather than a V-type plug, on the least visible wall. The plugged corner fill piece should extend back at least several inches from the corner. The seam of the floor should be below the cove stick. Using an underscriber, scribe the back of the plug at the corner. This will mark the pattern of the corner on the plug.



Cut along the scribed line at a 45° angle with a curved trim knife or a utility blade while holding the plug steady with a metal ruler and your other hand. When cutting, leave the face of the plug longer than the back.



Check the fill piece for accurate fit. Make any minor adjustments to the plug as necessary to fill the space correctly. Remove the fitted fill piece and apply the appropriate adhesive. Reposition the fill piece and apply seam sealer.

Residential Resilient® Installation Accessories

MANNINGTON ADHESIVES & SEALERS

General Instructions

Using the proper installation accessories for a job not only reduces the chance of installation failure, but also adds to the integrity and life of a floor. We have specially engineered each of our products to meet the needs of the appropriate Mannington floor covering to produce optimum end results. We constantly strive to improve all of our products. Regular product enhancements increase the level of performance and ease of use for the installer, but we always stress the importance of adhering to all proper installation procedures.

The following products are available from your local Mannington Distributor and Retailer. Follow all directions on each product's packaging and the information contained in this handbook. If you have any questions regarding a product, contact your local Mannington Distributor or contact Mannington Mills, Inc.

V-31 Premium Latex Adhesive

Description:

V-31 adhesive is a nontoxic, nonflammable, light-colored, latex-based adhesive. It provides a water- and alkali-resistant bond for all Mannington Residential felt-backed floor coverings. You can use it over all approved suspended wood underlayments; on-, above-, or below-

grade fully cured concrete; and on existing smooth, non-cushioned, tightly bonded resilient floor coverings.

Features:

- Easy application
- VOC-compliant/solvent-free/low odor
- Non flammable
- Moisture- and alkali-resistant
- Readily identifiable mylar chips
- Contains fungicide protection
- Complies with SCAQMD Rule 1168

Directions:

Make sure the underfloor is clean and free of all foreign matter such as dirt, paint, oil, wax, etc. It must be smooth and level. Sand off high spots and fill low spots, cracks, holes, etc., with the appropriate patching compound.

Maintain the adhesive, floor covering, and job site at a temperature of at least 65°F for a minimum of 48 hours before, during, and after the installation.

On porous and nonporous substrates spread adhesive using a trowel with 1/16" x 1/32" x 1/32" notch trowel.

Lay the floor covering into the adhesive to avoid trapping air under the sheet. Do not drop or flop the material into the adhesive. Allowing some open time will eliminate the possibility of gas bubbles or adhesive displacement. (This is especially important on nonporous substrates.) Do not allow the adhesive to form a skin or to over dry.

Immediately roll the adhered material in both directions using a 75-lb (or heavier), three-section floor roller.

You can clean fresh adhesive smears with water. Dried adhesive can be removed with mineral spirits. Avoid heavy traffic on the finished installation for 24 hours.

Coverage:

Approximately 135 to 180 sq ft per gallon

Packaging:

4-gallon pail #839835
44 lbs (19.98 kg)

1-gallon can (4 per carton) #839831
Carton weight 44 lbs (19.98 kg)

Precautions:

- Do not use with vinyl-backed materials.
- Do not use where excessive moisture, alkali, or hydrostatic pressure exists.
- Use with adequate ventilation.
- Avoid contact with eyes.
- Do not ingest.
- KEEP OUT OF THE REACH OF CHILDREN.

SEAM SEALERS/APPLICATORS

MSS 20 Standard Sealer



Description:

MSS 20 is used to seal all seams in Mannington Resilient products with a vinyl wearlayer. MSS 20 provides a chemical “weld” to provide a continuous, impervious surface. A properly sealed seam will be as strong as the surface of the floor covering, and will remain intact for the life of the floor.

Directions:

Prior to sealing the seam, make certain all seams are clean, dry, and free of adhesive contamination.

Fill the VST-96 professional applicator bottle (sold separately) at least 2/3 full of sealer. After securing the VST tip to the applicator bottle, allow the bottle to stand until all air bubbles have dispersed.

Check the flow of the sealer through the fin on a scrap piece of flooring prior to use.

Use the forefinger of one hand on the top flat portion of the tip to guide and ensure proper fin penetration. Use the other hand to control sealer flow. Hold the bottle at approximately a 45° angle.

Lightly squeeze the bottle to apply a uniform bead of sealer approximately 1/8” wide, centered on the seam cut.

It is crucial that the seam sealer penetrate the full thickness of the seam cut to ensure a proper chemical weld.

Low Gloss MLG 33 Urethane Sealer Kit



Description:

MLG 33 sealer (two-part seam sealer) is designed for Mannington products with low-gloss vinyl or urethane-based wear-layers. A properly sealed seam will be as strong as the surface of the floor covering, and will remain intact for the life of the floor. The Versatile Sealing Tip (VST-96) is included in this kit.

Coverage:

One kit of MLG 33 will seal approximately 70 lineal feet of seams.

Packaging:

6 kits per carton #832233
Carton weight 3 lbs (1.4 kg)

Precautions:

- Flammable liquid. Do not use near heat, sparks, pilot lights, fire, or other open flames
- Do not ingest
- Avoid contact with skin and eyes
- Use in well-ventilated areas
- Avoid prolonged breathing of vapors.
- Do not save for reuse
- KEEP OUT OF THE REACH OF CHILDREN.

Directions:

Prior to sealing, be certain all seams are clean, dry, and free of adhesive contamination.

Part B, which contains the de-glossing agent, must be shaken vigorously before blending with Part A.

Empty entire contents of Parts A and B into the supplied applicator bottle. After securing the VST tip to the applicator bottle, gently shake the bottle to mix the ingredients. After mixing, the bottle should stand until all trapped air bubbles have dispersed, typically 15 minutes.

Prior to use, check the flow of the sealer on a scrap piece of flooring.

Use the forefinger of one hand on top of the flat portion of the tip to guide and ensure proper fin penetration. Use the other hand to control sealer flow. Hold the bottle at approximately a 45° angle.

Lightly squeeze the bottle to apply a uniform bead of sealer approximately 1/8" wide centered on the seam cut.

It is crucial that the seam sealer penetrate the full thickness of the seam cut to ensure a proper chemical weld.

Allow the sealed seam to dry before traffic can be allowed on the floor. Do not walk on or move heavy furniture directly over the sealer until it is fully dry. We recommend 24 hours. Mark the seam by placing a scrap piece of flooring along each side of the seam.

MLG 33 cannot be saved for reuse. Safely discard any unused sealer.

ST-96 Professional Applicator Kit



Description:

The Professional Seam Sealer Applicator Kit contains a 4-ounce bottle, a tip cleaning pin, and the Versatile Sealing Tip (VST-96). The kit is intended to be used with Mannington MSS-20 and MCS 42 seam sealers. (MLG 33 seam sealer kits contain the VST-96.) The ergonomic design and specially engineered

tip help apply the appropriate amount of seam sealer while completely penetrating the seam cut for all Mannington Residential and Commercial Resilient sheet flooring applications. Prior to sealing seams in all products, make certain that all seams are clean, dry, and free of adhesive contamination.

Packaging:

6 per carton #832204

Carton weight 2 lbs (0.9 kg)