



INSTALLATION GUIDELINES

QuickStix[®] Resilient Sheet Flooring

GENERAL INFORMATION

All recommendations are based on the most recent available information. The information on this sheet provides general guidelines. For complete details consult Mannington Commercial's General Installation Guide or visit our website at manningtoncommercial.com. All instructions and recommendations must be followed for a satisfactory installation.

Good preparation is essential for a trouble-free installation. Do not install Mannington Commercial flooring until job-site testing and subfloor preparations are finished and the work of all other trades is complete. Site conditions must comply with relevant building codes and local, state and national regulations.

- Mannington Commercial flooring is recommended for use over properly prepared concrete, suspended wood, metal, and other suitable substrates.
- Check that quantity of flooring is enough for area to be installed. Check for visual defects before installation. Installation of flooring acknowledges acceptance of materials. Report discrepancies immediately to Mannington Commercial at 1.800.241.2262 ext 2. (Claims), as installation of products installed with visual defects or incorrect style will not be honored.
- Never install Mannington Commercial flooring products over residual asphalt type (Cutback) adhesive as "Bleed Through" may occur.
- Mannington Commercial flooring is not suitable for external installation or unheated locations.
- Mannington Commercial flooring, job-site and subfloor must be acclimated to a stable condition before installation (See Job-site testing).
- Immediate foot traffic and full use is allowed once installation is completed.
- Mannington Commercial flooring should remain at a temperature between 55° - 85° F (13° - 29° C) during its service life.



- Mannington Commercial resilient sheet flooring with QuickStix is a pre-cured adhesive system.
- All seams must be sealed using the appropriate Mannington Commercial chemical seam sealer or heat welded with Mannington Commercial solid color weld rod.
- No Moisture Testing is Required for resilient sheet when installed with QuickStix provided the slab meets ASTM F-710 including the presence of an intact moisture vapor retarder per ASTM E-1745 (Class B Minimum), is in direct contact with the concrete slab, no standing water, no free liquids present, no evidence of moisture staining, and no hydrostatic pressure. The pH limit is 12. (Moisture Resistant Primer required.)
- For all other conditions moisture testing is required. The RH limit per ASTM F2170 is 95% the MVER per ASTM 1869 is 10lbs. and PH not to exceed 12. (Two Coats of Mannington Premium Universal Primer required.)
- The use of Mannington Universal Primer is required for the installation of Mannington Commercial QuickStix resilient sheet products over porous or non-porous substrates where unknown slab conditions exist. Warranty will be voided if the primer is not used. All wood substrates and gypcrete substrates require two-coat application. When flash coving, all walls require primer. Unpainted drywall will require two-coat application.

HANDLING & STORAGE

All floor covering products require care during storage and handling. It is important to store flooring products in a dry interior space, maintained at room temperature (min 65°F/18.3°C and max 100°F/37.8°C) with a relative humidity between 30-70%. If it is not possible to provide these storage conditions, you must make arrangements to have the material conditioned for at least 48 hours before beginning the installation. Proper storage will prevent product distortion and damage.

All rolled material should be stored with the tape side or white film surface facing out and wrapped tightly on a cardboard or other suitable material core for support.

Horizontal Storage

6' and 6' 6" (2 m) resilient sheet materials can be stored horizontally, with the weight of the product supported evenly across the entire width of the roll. It is important to ensure that the rolls are stored in a flat area, free of debris or other items that may damage or indent the flooring material.

Heavy objects should never be placed on top of the rolls, as the material may become crushed or damaged as a result. When it is deemed necessary to stack rolls for short term storage (less than 48 hours), they should never be stacked more than five tiers high. Stack rolls in a manner such to prevent larger rolls from being placed on top of smaller rolls. In addition, care should be taken to ensure any stacked rolls are adequately supported to prevent slipping or movement of the stack.

Vertical (Upright) Storage

6' and 6'6" (2 m) resilient sheet materials can be stored vertically (on end). When this option is desired, ensure that the product weight is supported evenly. To ensure safety and prevent incidental damages, the use of straps or other suitable means of restraint is recommended to secure rolls from moving or falling during storage. Rolls should be stored flat on their end without leaning or placing objects under them.

JOB-SITE TESTING

1. Before job-site testing, the building envelope must be sealed (walls, roofing, windows, doorways etc., installed).
2. The installation area and materials to be installed shall be maintained at a minimum of 65°F (18.3°C) and a maximum of 85°F (29.4°C) for 48 hours before, during and for 48 hours after completion of the installation. Relative humidity level extremes should also be avoided. General recommended humidity control level is between 35–55%. If a system other than the permanent HVAC source is utilized, it must provide proper control of both temperature and humidity to recommended or specific levels for the appropriate time duration.
3. Test sites must be properly prepared and protected for the duration of testing to achieve valid results.
4. Surface Flatness for all Subfloors: The surface shall be flat to 3/16" (4.7 mm) in 10' (3,050 mm) and 1/32" (0.8 mm) in 1' (305 mm). To check flatness, place a 10' straight edge, string, laser level or use another suitable method on the surface, and measure the gap.
5. Concrete subfloors:
 - a. Concrete subfloors must be finished, cured, and free of all sealers, coatings, finishes, dirt, film-forming curing compounds or other substances that may prevent proper bonding of the flooring materials (ACI 302.1 and ASTM F710).
 - b. Randomly check concrete subfloor for porosity using the drop water test. Place a 1"-diameter drop of water directly onto the concrete subfloor. If the water droplet does not dissipate within 60 to 90 seconds, the subfloor is considered non-porous.
 - c. Concrete subfloors must have a minimum compressive strength of 3000 psi. Concrete subfloors shall not consist of lightweight concrete or gypsum.
 - d. Moisture testing: Perform either the preferred In-situ Relative Humidity (RH) Test (ASTM F2170) or the acceptable Moisture Vapor Emission Rate (MVER) Test (ASTM F1869).
6. Wood subfloors and underlayment panels shall have the moisture content tested using a suitable wood pin meter. Readings between the wood subfloor and underlayment should be within 3% and have a maximum moisture content of 14% or less.

SUBFLOOR PREPARATION

Careful subfloor preparation is vital for an excellent floor appearance and good adhesion. The subfloor must be smooth, firm, flat, clean, dry, free from defects and fit for purpose. A suitable smoothing compound should be used to ensure that no irregularities show through to the surface of the finished floor. In all cases, the subfloor must meet the moisture and pH requirements before installation.

1. All construction material, residual adhesives and other subfloor contaminants **MUST** be completely removed by mechanical means. Scrape the surface clean or diamond cup grind to remove all surface contamination. For larger installations, diamond cup grinding is recommended. **DO NOT** use chemical adhesive removers. Use of chemical adhesive removers, including abatement cleaning chemicals (organic or inorganic), may reduce the adhesion properties and will void the bond warranty.
2. Moisture testing (RH): Testing shall be performed before installation in accordance with ASTM F2170.
3. Perform a bond test with a minimum 1' by 1' primed area every 1000 ft² to ensure proper adhesion. Test a minimum of 3 areas per project. Wait 10 minutes before lifting the bond tests. If bond tests can be lifted without significant effort, contact Mannington Commercial at 800.241.2262 ext. 3 before proceeding with installation.
4. Once all substrate preparations are complete and the surface is dry, clean, free of dust, flat and smooth, apply the Mannington Universal Primer where applicable. See Primer details later in this guide.
5. Expansion joints, isolation joints or other moving joints are incorporated into concrete floor slabs to permit movement without causing random cracks in the concrete. These joints must be honored and not be filled with underlayment products or other materials, and floor coverings must not be laid over them. Expansion joint covering systems should be detailed by the architect or engineer based upon intended usage and aesthetic considerations.
6. Surface cracks, grooves, depressions, control joints or other non-moving joints, and other irregularities shall be filled or smoothed with a moisture-resistant, high-quality Portland cement-based patching or underlayment compound for filling or smoothing, or both. Patching or underlayment compound shall be moisture, mildew and alkali-resistant and shall provide a minimum of 3000 psi compressive strength after 28 days, when tested in accordance with ASTM C109 or ASTM C472, whichever is appropriate.

Concrete Subfloors

Below and on-grade concrete subfloors must have a suitable vapor retarder properly installed directly beneath the slab. Always follow manufacturers' written recommendations for the use and installation of their appropriate surface preparation materials.

1. Record and file site condition test results and any corrective action taken. It is important maintain this documentation throughout the warranty period.
2. Subfloor must be clean (free of dirt, sealers, curing, hardening or parting compounds or any substance that may stain or prevent adhesion), smooth, flat, sound and fit for purpose, and free of movement, excessive moisture, and high alkalinity.

3. Slick surfaces such as power troweled concrete shall be abraded or profiled to allow for a mechanical bond between the adhesive and subfloor.
4. Remove existing resilient floor covering; remove all residual adhesive, paint or other contaminants following RFCI recommended work practice. The use of adhesive removers or solvents in the abatement or removal of existing or old adhesives is prohibited and may void any warranty.

WARNING: ASBESTOS & SILICA - Refer to the current Resilient Floor Covering Institute (RFCI) document "Recommended Work Practices for Removal of Existing Resilient Floor Coverings" for guidance (www.RFCI.com).

Note: If the flooring contractor elects to install new floor covering over an existing floor covering, the flooring contractor assumes all responsibility as to the suitability and continued performance of the existing floor covering.

5. Perform corrective actions necessary for elevated moisture or high alkalinity conditions.
6. Surface flatness for all subfloors: The surface shall be flat to 3/16" (3.9 mm) in 10' (3050 mm) and 1/32" (0.8 mm) in 1' (305 mm). Bring high spots level by sanding, grinding etc., and fill low spots. Smooth surface to prevent any irregularities or roughness from telegraphing through the new flooring.
7. Leveling and patching: For concrete subfloors, use only high-quality Portland cement-based materials (minimum 3000 psi compressive strength according to ASTM C109). Mix with water only, do not use latex. CAUTION: Do not lightly skim coat highly polished or slick power-troweled concrete surfaces. A thin film of floor patch will not bond to a slick subfloor and may become a bond breaker, causing flooring to release at the interface of the subfloor and patching material. If in doubt, perform a bond test prior to commencing with the installation.
8. Holes, grooves, and other depressions must be filled with Portland cement-based compound, troweled smooth and feathered even with the surrounding surface.
9. All marking paint, permanent markers, crayons and any other potential stainants must be removed by grinding from the concrete surface before installation. Never mark the back of the flooring product.

Wood Subfloors

Wood subfloors require an underlayment (double layer construction) with a minimum total thickness of 1" (25 mm). Use minimum 1/4" (6 mm) thick APA rated "underlayment grade" plywood with a fully sanded face or other underlayment panel that is appropriate for the intended usage. Install and prepare panels and seams according to the manufacturer's instructions. Also refer to ASTM F 1482 Standard Practice for Installation and Preparation of Panel Underlayments to receive Resilient Flooring.

Underlayment: Many times, wood panel subfloors are damaged during the construction process or are not underlayment grade. These panels must be covered with an appropriate underlayment. Underlayment panels are intended to be used to provide a smooth surface on which to adhere the finished floor covering. Underlayment panels cannot correct structural deficiencies. Telegraphing of subfloor panel joints is not warrantied.

Particleboard, chipboard, construction grade plywood, OSB, flake-board and wafer board are not recommended as underlayments. All have inadequate uniformity, poor dimensional stability and variable surface porosity. Mannington Commercial will not accept responsibility for adhered installation over these subfloors. In all cases, the underlayment manufacturer or underlayment installer is responsible for all underlayment warranties. Fire-treated wood panels are not accepted for underlayment for the QuickStix product.

Underlayment Requirements: Panels intended to be used as underlayment should be specifically designed for this purpose. These panels should have a minimum thickness of 1/4" (6 mm). Any panels selected as an underlayment must meet the following criteria:

- Be dimensionally stable.
- Have a smooth, fully sanded face so graining or texture will not telegraph through.
- Be resistant to both static and impact indentation.
- Be free of any surface components that may cause staining such as plastic fillers, marking inks sealers, etc.
- Be of uniform density, porosity and thickness.
- Have a written warranty for suitability and performance from the panel manufacturer or have a history of proven performance.
- A double coat of Mannington Premium Universal Primer is required.
- Any unevenness at the joints between panels must be sanded to a level surface. Gaps between panels, hammer indentations and all other surface irregularities must be filled and sanded.

Existing Floor Coverings

To achieve maximum product performance, it is always best to remove existing floor covering and prepare the substrate before installing new products in commercial settings. Existing flooring can adversely affect the performance properties of the new flooring, such as indentation or adhesive bond. Please contact our technical department at 1.800.241.2262 ext. 3 for more details.

Note: If the flooring contractor elects to install new floor covering over an existing floor covering, the flooring contractor assumes all responsibility as to the suitability and continued performance of the existing floor covering.

INSTALLATION

Acclimation

The installation area and materials to be installed shall be maintained at a minimum of 65°F (18.3°C) and a maximum of 85°F (29.4°C) for 48 hours before, during and for 48 hours after completion of the installation. Relative humidity level extremes should also be avoided. General recommended humidity control level is between 35–55%. If a system other than the permanent HVAC source is utilized, it must provide proper control of both temperature and humidity to recommended or specific levels for the appropriate time duration.

Primer

Two coats of the Mannington Universal Primer is required when installing resilient sheet products with QuickStix on slabs where no intact vapor barrier exist or the conditions of the slab are unknown. All bond warranties will be voided if the Mannington Universal Primer is not used as required. Apply Primer with a 3/8" nap roller using a paint tray. Dumping the Primer directly on the subfloor will cause non-uniform application and will also cause the Primer to dry more slowly.

Cutting and Fitting

Mannington Commercial sheet products are flexible and will handle easily when cutting and fitting. This product characteristic enables the installer to fit the material using freehand knifing techniques.

- 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 the roll numbers are in consecutive order.
- If the job-site is complex and requires a precise fit, use pattern-scribing techniques.
- The material may also be fit using direct scribing techniques.
- Care should be taken when folding the material back. Always fold the material in a wide radius to avoid sharp kinks and creases, which may cause breaks in the product.
- Always leave protective film on when making cuts.

When you are ready to attach the flooring to the substrate, keep in mind that the adhesive has an extremely aggressive bond that adheres immediately. It is difficult to remove a piece of flooring once contact is made. Make sure of alignment before adhesive touches the substrate. Walls should be measured for runoff which may affect the visual of installed flooring.

For sheet product installations, it is generally recommended to begin the installation at the middle of the room. Consideration to placement should be given to primary entry point of the room and traffic flow for layout. This should be reviewed with architect, end user and GC as appropriate. Adjust chalk reference lines to achieve intended flooring layout. Place chalk lines on substrate for proper flooring alignment within room. Once chalk reference lines are placed, dry fit flooring to confirm intended flooring placement with release liner on material. Allow for 2"-3" of extra material in each direction.

Once sheet flooring product is dry fitted and in place to install, begin with first cut by folding back the first 4'-6' on one end. With the flooring laid back, lightly score the release paper backing 2'-3' from the end of piece, being careful not to cut into the material. The material with exposed adhesive will stick immediately to any surface it touches. If flash coving is required, score the paper liner at the juncture of the cove stick and floor to prevent the adhesive from sticking to the wall prior to final fitting. It is helpful to fold back the cut edge of the release liner 1"-2" perpendicular to the edge of the sheet flooring.

Carefully lay the first cut back onto the substrate making sure the surface is clean and maintaining edge alignment with edge of chalk line. Roll the material onto the substrate with a smooth motion, being careful not to trap any bubbles under the floor.

As you lay the floor, immediately roll flooring across the width using a 100 lb (or greater) roller. Once the installation is complete, re-roll the flooring in both directions. Minimize traffic on the floor until the initial rolling has been completed.

Installation Tips

- If some shifting of the material is required, on the substrate, mist the surface with a hand spray bottle with clean water.
- Apply mist before exposed adhesive touches surface. Applying a light mist will allow the installer to briefly shift the flooring during the initial application and aide in removing trapped air under the material.
- Do not allow the adhesive film to contact the walls, baseboards, or any other object except the intended sub floor.
- Dispose of release paper as you install, keeping the immediate work area clean.
- Keep cut pieces and scrap flooring off installed surface. Adhesive residue on flooring surface can appear as scuffs, as it attracts dirt.
- Remove all adhesive smears or residue from the surface of the floor covering using Clorox wipes or alcohol-based hand sanitizer gel. To prevent getting adhesive residue on the surface during installation, use a large piece of the release paper to place all cuts and scrap pieces on.

SEAMING

Heterogeneous Flooring - Trace Cutting

When seaming is required with heterogeneous flooring, seams should be cut using the trace cutting technique. Heterogeneous products should be installed Do Not Reverse for seaming.

1. The selvage edge of one sheet should be straight-edged approximately 3/8" from the edge.
2. Position the sheets in such a manner that the straight-edged top sheet will overlap the untrimmed bottom sheet and maintain the pattern match.
3. Carefully trace along the edge of the top sheet with a utility knife with a sharp blade or a cutting tool designed for this purpose.
4. Remove the trimmed selvage edge of the bottom sheet.
5. Once the seams are cut, weigh the sheets and tube or lap back the sheets to expose the underfloor.
6. Roll the adhered areas to within about 6" of the seam line with a 100 lb three-section floor roller.
7. Roll the seam area with a hand seam roller to bring the seam edges level. Re-roll the entire adhered area with a 100 lb floor roller.
8. Thoroughly clean the seam area and wipe dry.

Heterogeneous Flooring - Chemical Seam Sealing

Seams may be sealed using the chemical seam sealing method. The seams will be sealed with MLG-33 and the VST-96 professional applicator tip.

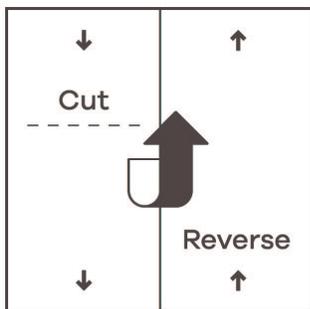
1. Before sealing the seams, make certain all seams are clean, dry, and free of adhesive contamination.
2. Fill the VST-96 applicator bottle at least 2/3 full of sealer. Tightly screw on the applicator tip.
3. Before using, check the flow through the applicator on a scrap piece of flooring.
4. Insert the fin into the seam cut and 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 penetrates the full thickness of the seam cut to ensure a proper chemical bond.
5. Do not wipe the sealer from the surface of the flooring.

Homogeneous Flooring - Recess Scribing

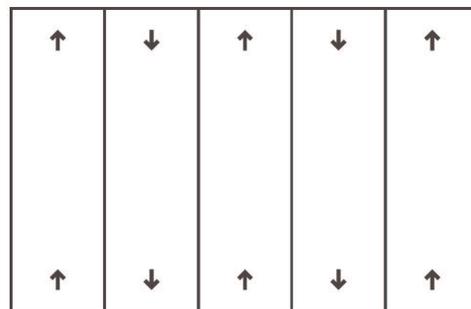
When seaming is required with Homogeneous flooring, recess scribing is the recommended method. Position the materials as "Reverse Sheets." This requires positioning similar sides of the sheet together.

1. Directional arrows are applied to the back of sheet flooring for proper placement. Peel back the liner 4"-6" to confirm direction. See Reverse Seam Diagrams below.

Reverse Sheet - Cut/Single Seam



Reverse Sheet - Multiple Seams



2. Cut the selvage edge of one sheet using a straightedge and a utility knife or edge trimmer. Trim off about 3/8" from the edge. Trimming is necessary since 6' rolls are typically stored on-end causing compression on one edge. Or the rolls might even be damaged during transport.
3. Position the sheets in such a manner that the top sheet will overlap the previously straightened sheet by approximately 1/2".
4. Adjust the recess scriber before cutting the seam by cutting a slit in a scrap piece of resilient flooring material. Insert the button on one edge of the slit. The needle should just touch the opposite side of the slit. Make sure to set the scriber to produce a net fit, neither gapped nor too full.

5. Using a recess-scribing tool, insert the scribe against the straightedge piece of resilient. Use the bottom end of the tool, the guide, to follow the bottom sheet and lightly score the top sheet with the needle of the scribing tool. Keep the scribing tool perpendicular to the seams when scribing.
6. Cut the seam net with a utility knife (straight or hook blade). Cut the seam by following the scribed mark. A burr may be created on the seam if the needle of the scribe is set too deep or too much pressure is applied. Remove any burrs by placing the seam with the back of a hook knife.

CAUTION: If the scribe is pulled too tightly against the bottom sheet, the seam will be too full and have the potential to peak.

7. After scribing and cutting the seam, begin with the first cut by folding back the first 4'-6' on one end. With the flooring laid back, lightly score the release paper backing 2'-3' from the end of piece careful not to cut into the material.
8. The material with exposed adhesive will stick immediately to any surface it touches.
9. If flash coving is required, score the paper liner at the juncture of the cove stick and floor to prevent the adhesive from sticking to the wall prior to final fitting. It is helpful to fold back the cut edge of the release liner 1"-2" perpendicular to the edge of the sheeting flooring.

Homogeneous Flooring - Chemical Seam Sealing (see next section for separate instructions for Assurance III and BioSpec SR)

1. Thoroughly clean the seam of all adhesives, dirt, etc., before sealing it.
2. If the seams are to be chemically welded, use Mannington Commercial MCS 42 Seam Sealer.
3. When inserting the applicator tip into the seam cut, it is crucial that the seam sealer be applied to the full depth of the cut.
4. Wipe off all sealer from the surface of the seam with a clean white cloth dampened with mineral spirits.
5. Because the seam sealer should not be allowed to remain on the surface of the flooring more than 30 or 40 seconds, it is recommended 5 or 6 lineal feet of seam be sealed and then wiped clean. Be certain to overlap each application of seam sealer.

Homogeneous Flooring – Chemical Seam Sealing (Assurance III and BioSpec SR)

To utilize a chemical seam sealing method for Mannington Assurance III, the flooring must be installed using V-95, centered at the seam location in a 4" to 6" wide band.

1. After installing the flooring, apply a narrow bead of MLG-33 seam sealer using the applicator with the fin up.
2. Do not insert the fin into the seam.
3. Be sure that the sealer is in contact with both sides of the flooring.
4. Leave the bead of sealer on top of the flooring.
5. Do not wipe the seam.

6. Allow 24 hours for the sealer to set before allowing foot traffic or appliances across the seamed area.

Heat Welding / Weld Rods

Heat welding is the preferred method for sealing seams. Heat welding is the act of fusing resilient sheets together with a heated thermal vinyl weld rod. Mannington's weld rod is available on spools and is designed to fit the most popular heat welding guns. Mannington offers a broad range of solid rod colors to coordinate with all our heat-weldable flooring.

To achieve good sealing results, knowledge of proper heat welding procedures is important. A repeated stop/start method will produce rough uneven seams, creating an unpleasant appearance.

Temperature and speed are critical to the success of any heat welding application. If the welding gun is set too hot or applied too slowly, the flooring is likely to burn, char, or craze the surface next to the weld rod. If the welding gun is not hot enough or applied too quickly, the weld may have poor fusion.

1. Once installed, there is no need to wait to heat weld seams.
2. Use a power-grooving machine or hand groover to cut a groove the entire length of the seam. Adjust the machine so the depth of the groove is about two thirds of the product's thickness. Never go all the way through material. Maintain a 3-sided weld (2 sides and bottom). Stop machine grooving several inches away from the wall.
3. Extend the groove to the wall using a hand-grooving tool.
4. Preheat the welding gun and determine proper temperature setting and router depth by practicing on scrap pieces of flooring. Make certain the speed nozzle is clean and free of obstructions.
5. A 4mm round narrow heat sensitive (tip) designed for welding urethane finish flooring is required.
6. Insert the welding rod into the speed nozzle allowing approximately 3" to extend out. Arrange welding rod in such a manner that it will not interfere with the application. Be careful when inserting the welding rod because the nozzle is extremely hot.
7. Allow the welded rod to cool, and then groove the installed rod with a hand-grooving tool. Grooving the rod makes it possible to achieve complete seam coverage when you start seaming from the opposite direction to finish the job.
8. Reposition yourself and your tools at the back wall and continue welding into the grooved rod just made so there are no missed spots in the seam. It is important to achieve a smooth, continuous coverage of the rod into the seam.
9. After the welded rod shrinks and cools for approximately 30 minutes, trim down the excess by proceeding with the following steps:
 - a. Remove approximately two thirds of the exposed welded rod. Use a skive knife and trim plate to trim off the top layer. There should be about 1/32" excess weld rod projected above the surface of the resilient.

- b. Trim the welded rod level until it is flush with the surface of the resilient sheet. Use a properly sharpened skive knife; place at a 5° to 10° angle to the floor surface. Keep the sharpened side down against the welded rod. Be careful not to cut or dig into the resilient surface. Inspect the finished seam carefully and remove any missed high spots with a spatula knife. If there are low spots, the seam weld may require re-application of the weld rod.
10. Once the entire area has been trimmed and inspected, smooth out the completed seam by applying heat from the welding tool. Remove the speed nozzle and use the same heat setting to direct the flow of heat from the gun along the length of the seam.
11. For optimal performance, apply a uniform coating of the Quantum Guard Elite® Seam Coater Pen to the weld rod. This protective coating will keep the seam area clean and provide optimal performance. See details below.

Seam Coater Pen

The Quantum Guard Elite® Pen is a quick and easy way to provide topical protection to heat welded and chemically welded seams in Mannington Commercial resilient sheet products that have the patented high performance urethane Quantum Guard® HP or Elite wear layer.

Before use, shake vigorously to blend the ingredients. Remove the cap, daub the felt tip marker a few times to begin the flow of the floor finish, and then coat over the seam area with a thin, even application. In high traffic areas it is a good practice to apply two or even three coats of finish from the Quantum Guard Elite® Pen. Just be certain that the finish is thoroughly dry before applying additional coats. Each Pen will cover approximately 300 lineal feet of seam.

The Quantum Guard Elite® Pen coating is not intended to provide additional seam strength or integrity. It is a "coating" that helps retain seam appearance initially and when in service.

FLASH COVING

All Mannington resilient sheet flooring can be installed using the flash coving method. This edging technique, often preferred by hospitals and other health care facilities, is a process of extending the resilient flooring up the wall to create wall base. Normally, the floor covering is extended up the wall to a height of 4" to 6". Coving is specified with end users because it eliminates the need for a floor/wall juncture and is easy to maintain. Coving is required in most health care applications.

As with all resilient installations, proper preparation of the work area is critical to the success of the installation. Clean the underfloor 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). Walls require primer, and unpainted drywall will require two coats of primer.

When flash coving QuickStix resilient sheet, score the paper liner at the juncture of the cove stick and floor to prevent the product from sticking to the wall prior to final fitting. It is helpful to fold back the cut edge of the release liner 1"-2" perpendicular to the edge of the sheet flooring.

1. Measure desired height for the cove caps at each corner and strike a chalk line.

2. Attach aluminum or vinyl cove caps at this height using flathead nails with a hammer or brad pusher or use contact cement.
3. Always miter inside and outside corners in the cap. When mitering the outside corners, file the ends of the cap smooth. 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.
4. Firmly secure plastic or wood cove sticks where the floor meets the wall with adhesive or nails. Cove sticks support the resilient flooring as it is flashed up the wall, eliminating the chance of puncturing the resilient flooring.
 - a. The stick should have a minimum radius of 1 1/8" and be precisely mitered at all inside and outside corners.
 - b. Use non-staining nails and set flush with the stick.
5. Provide a smooth transition in the door casings and other areas where the coving ends by cutting back to the cove stick.
6. Tack the scribing felt to the wall with brad type nails before beginning to scribe it. Use a combination square, a small metal ruler, or a 1" piece of resilient to pattern scribe the felt.
 - a. 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.
 - b. Scribe and cut the outside corners of the felt using a utility knife and the inside corners of the felt using dividers.
7. After scribing the entire work area, position the pattern squarely on the resilient sheet flooring and transcribe the pattern with pencil dividers. Be careful when cutting the material on the inside and outside corners.
8. Dry fit the material. Inside corners should fit snug, but not be forced into position. Make sure to always position the shorter side first and then the longer side.
9. Once the material is in place, begin to remove the paper liner. The exposed adhesive will immediately stick to the surface.
10. Gradually remove the paper liner in short sections/increments until proper alignment is achieved. If some shifting of the material is required, the subfloor can be slightly misted with a spray bottle and water. This will give the installer a 10-15 second window to jog material in place.
11. Roll the flooring with the appropriate size roller (use a hand roller on coved areas). Apply the appropriate seam sealer commended directions for the resilient floor being installed.

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 plus, 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 plus at the corner. This will mark the pattern of the corner on the plug.

1. 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.

2. 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.

FINISHING THE JOB

- Protect all exposed edges of the floor covering with trim or moldings, wood or vinyl cove base along all walls, cabinet toe kicks, etc.
- Use metal strips in doorways or where new flooring joins another floor covering.
- Caulk along tubs, toilet bowls, etc.
- Remove all adhesive smears or residue from the surface of the floor covering with a clean cloth dampened with mineral spirits.
- Follow appropriate maintenance schedule for heterogeneous flooring products.

CAUTIONS AND MISCELLANEOUS

- Heavy furniture should be equipped with suitable non-staining, wide-bearing casters.
- Furniture should be moved onto the newly installed floor using an appliance hand truck over hardboard runways.
- Floor covering subjected to excessive heat and light exposure is subject to thermal degradation. Use appropriate precautions to minimize potential affects on the floor covering.
- Oil or petroleum-based products can result in surface staining. Do not track asphalt driveway sealer or automobile oil drips onto the vinyl floor covering.
- Use non-staining walk-off mats at building entrances to remove excess dirt and grit from foot traffic-rubber can discolor vinyl floor covering.
- Radiant Heat: Mannington Commercial resilient sheet flooring can be installed over radiant heating (hydroponic) systems. The maximum temperature of the subfloor surface must not exceed 85°. Before installing flooring products over newly constructed radiant-heating system, set the thermostat to a comfortable room temperature for the installation. For existing systems, the system must be switched off for a minimum of 48 hours before, during and 48 hours after flooring installation.

REPAIRS

Replacing Damaged Areas

If possible, the floor covering repair piece should come from the original installation. Typically, consumers retain leftover pieces from the original installation for attic stock.

1. Tape the repair piece over the damaged area and double-cut using a steel square as a guide.
2. Remove the damaged area and scrape the subfloor clean.
3. Remove release paper, and lay in new sheet
4. Roll the replacement area.
5. Use the appropriate Mannington seam sealer to seal all cuts.

For more Information, please contact Mannington Commercial Technical Services at 800.241.2262 ext. 3 or visit manningtoncommercial.com.