

Sobella™ Installation Methods

Sobella's™ installation methods simplify the installation process and let installers match the installation technique to the job site conditions. Sobella™ can be installed by using the Fully Adhered technique or the Loose Laid technique.

- **FULLY ADHERED:** The Fully Adhered technique has a long history of proven success. It's the best technique 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.
 - This technique requires that the flooring product be fully adhered to an acceptable substrate using Mannington MT-711 Adhesive. Acceptable substrates are clean, dry and smooth. They include both wood panel and concrete underfloors.
- **LOOSE LAID:** Loose Laid is the easiest installation method. Using this method, Sobella™ is fit just slightly short of all vertical surfaces (1/8" to 1/4" 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.
 - Loose Laid floors can be installed over many substrates that are not suitable for Fully Adhered products (particleboard, chipboard, flakeboard, lightweight concrete).
 - Only one major seam is permitted when installing with the Loose Laid systems.
 - Never secure any permanent fixtures into the Sobella™. The product must be "free floating" with no "pinch points."
 - This non-adhered installation method allows the material to be rolled back to correct any substrate problems, and is easily removed when required.

No matter which installation system will be used it's important to consider the following:

Storage and Handling

Sobella™ 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 100°F. Additionally, the humidity of the storage area should be controlled and maintained between 30% and 70%.

Always store Sobella™ tightly rolled, face out on a sturdy cardboard core designed for that purpose. Store the roll horizontally and support it across the entire width.

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 Distributor 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 Sobella™ is to be installed is critically important in regard to successful installation and continued performance of the flooring products. Mannington is intended to be installed in interior locations only. These interior locations must meet climatic and structural requirements as well.

Temperature Requirements

Do not install Sobella™ 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 100°F for 48 hours before and after the installation and while installing. This requirement can seldom be fulfilled with temporary space heaters. A permanent heating or cooling source must 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 30% to 70% range.

You may install Sobella™ over radiant-heated flooring systems, provided the surface temperature of the system does not exceed 90°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.

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 either constructed of concrete (or cementlike materials) or wood.

Wood Subfloors

Subfloor Selection and Preparation

Sobella's™ unique construction permits it to be loose laid over many wood subfloors that are not suitable for fully adhered resilient products. However, if Sobella™ is to be fully adhered, proper subfloor selection and preparation become more important. In either case, the subfloor must be clean, dry and smooth.

Stripwood Underfloors

Stripwood, plank, or any board-type subfloors are not acceptable underfloors for the direct installation of fully adhered Sobella™. If the stripwood is 3" or less in width and is tongue-and-groove, use 1/4" underlayment to eliminate the potential for board joint telegraphing. If the stripwood construction is wider than 3" or is not tongue-and-groove, then use 1/2" or thicker underlayment.

Smooth stripwood floors may be acceptable when using the loose-laid installation method with Sobella™ **Keep in mind that even if these stripwood floors are completely smooth, future expansion and contraction of the structure may result in board joint telegraphing through the finished flooring.**

Wood Composite Panels

Particleboard, chipboard, wafer board and orient strand board may be used as subfloor panels during construction. Seldom, if ever, are these composite panels suitable for use as an underfloor when using the Fully Adhered system. These subfloors typically require an underlayment of at least 1/4" in order to provide a smooth, clean surface on which to apply adhesive. These panels may be suitable for use when utilizing the Loose Laid system, provided they are smooth, clean, dry and defect-free.

Plywood Underlayment Panels

When installing a Sobella™ resilient floor over a wood subfloor system, it is recommended to first install wood panel underlayment sheets to provide a smooth, clean surface. Install underlayment panels just before the installation of the finished flooring and protect them from construction traffic or other potential damage or staining. As with most other construction materials, condition the underlayment panels to the environment in which you will be installing them. If panels are not conditioned, it could result in "telegraphing" of the subfloor seams through the resilient flooring.

General Underlayment Guidelines

When selecting underlayment panels, be certain they are specifically designed for this purpose. These panels should have a minimum thickness of 1/4". Any panels selected for use as underlayment must meet the following criteria:

- Possess dimensional stability.
- Provide a smooth, fully-sanded face so graining or texturing will not show through.
- Offer resistance to both static and impact indentation.
- Be free of any surface components that may cause staining, such as plastic fillers, marking inks, sealers, etc.
- Offer uniform density, porosity, and thickness.
- Carry a written warranty for suitability and performance from the panel manufacturer or a history of proven performance.

Mannington cannot provide warranty for any underlayment or subfloor panel with regard to performance or suitability. All warranties as to performance and suitability of these panels rest with the panel manufacturer or panel specifier or installers.

Concrete Subfloors

New and existing concrete subfloors should meet the requirements prescribed in the latest edition of ASTM F 710, "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring."

Concrete subfloors must be permanently dry, clean, smooth, flat and structurally sound. Concrete subfloors on or below grade must have an acceptable vapor retarding membrane to isolate the concrete from the soil. Newly poured concrete, regardless of grade level, must be given ample time to cure and fully dry. Drying times for concrete slabs vary greatly depending on mix, atmospheric conditions, construction practices and location of slab.

Concrete subfloors must have a minimum compressive strength of 3000 PSI and a dry density of at least 100 pounds per cubic foot. The concrete surface must be free of surface defects and surface contaminants. Surface

defects include cracks, holes, flaking or dusting of the concrete surface. Surface contaminants should be considered as any substance that will interfere with the bond of the floor covering to the subfloor, such as curing or parting compounds, paints, oils, solvents and existing adhesives.

Surface defects must be corrected before installing any finished flooring product. Low spots, cracks, holes and other irregularities can be patched smooth using a latex Portland cement compound designed for this purpose. Mannington MVP-2023 patching compound is ideal for this type of surface preparation. If the surface of the concrete is found to be flaking or dusting, these conditions must be mechanically corrected and the concrete then re-surfaced with an appropriate compound. All surface contaminants that may interfere with bonding must also be mechanically removed and the concrete be re-surfaced, before installing any flooring product which requires a direct glue-down procedure. Mannington does not recommend using any chemicals or solvents to remove concrete surface contaminants.

Many concrete slabs will have joints designed in to them. Expansion and isolation joints are designed to allow the concrete slab to expand and contract. These expansion joints must never be filled with patching or leveling compound nor covered with hard-surface flooring products. Expansion joint covers are available and designed to be used with specific types of floor-covering products. Other types of concrete joints, such as construction, control and/or saw cuts, can be smoothed and leveled using an appropriate Portland cement patching compound like Mannington MVP-2023.

Moisture Testing

Regardless of the time in place or the grade level, all concrete subfloors must be tested for moisture and alkalinity before covering with flooring products. The most common quantitative moisture test is the Anhydrous Calcium Chloride test. This test must be performed in accordance with ASTM F 1869-04, "Standard Test Method for Measuring Moisture Vapor Emissions Rate of Concrete Subfloor Using Anhydrous Calcium Chloride." According to the ASTM, the moisture emissions from the concrete floor shall not exceed 3 lbs/1000 sq ft/ 24 hours. At least one test kit should be used in areas up to 1000 sq ft. Additional kits should be used in larger areas.

Another quantitative moisture test method is the In-Situ Relative Humidity test. This test measures the relative humidity level within the concrete slab. This test must be performed in accordance with ASTM F 2170-02. The relative humidity of the slab must not exceed 75%. If the relative humidity in the slab exceeds 75%, DO NOT INSTALL ANY MANNINGTON FLOOR COVERINGS.

Moisture Meters

There are many manufacturers of quality moisture-reading devices. However, there is no standard correlation between the meter-reading and the calcium-chloride or the In-Situ Relative humidity test methods. Each meter is calibrated to its own scale and must be interpreted as directed by the manufacturer.

Concrete Curing, Hardening, Sealing and Parting Compounds

Often, various compounds will be added in the concrete mix or applied to the surface of the freshly placed concrete to assist in the curing process. These compounds may interfere with the bond of any fully adhered flooring product. If any of these surface compounds is expected to remain on the surface, they must be removed by grinding, scarifying or bead blasting.

Alkali Testing

A pH test should be conducted on all concrete floors regardless of the age or the grade level. The test is performed using a wide range pH paper and distilled water. Puddle the water on the surface of the concrete for a minimum of 60 seconds and then dip the pH paper into the water. The acceptable pH range is between 5 and 10

on the pH scale. If the pH is greater than 10, it must be reduced before proceeding with any fully adhered flooring product installation.

Bond Testing

If the surface of the concrete shows any evidence of contamination or if the history of the concrete is unknown, a bond test should be performed before beginning the flooring installation. To conduct a bond test, select approximately a 3' X 3' piece of the exact flooring product specified for the job and adhere it to the subfloor with the exact adhesive that will be used during installation. On large installations, conduct several bond tests. After 72 hours, attempt to remove the test sample. If sufficient force must be used to remove the sample you may consider the concrete suitable for installation.

Residual Adhesive

Completely remove all residual adhesives on a previously-covered concrete underfloor or cover them with a cementitious underlayment intended for this purpose. Never use solvent-based adhesive removers. Complete removal of all residual solvent is very difficult. Any solvent remaining on the surface of the concrete will prohibit satisfactory bonding of the new adhesives. Complete removal of asphalt-cutback or asphalt-emulsion adhesive from a concrete underfloor is nearly impossible. Wet-scrape these adhesives from the concrete. Then cover the concrete with a minimum of 1/8" of a trowelable or self-leveling cementitious underlayment intended for this purpose. Mannington MVP-2023 may be used to cover residual adhesive stainants on concrete underfloors.



DANGER: Older asphalt adhesives may contain asbestos fibers. Do not use power devices that create asbestos dust in removing these adhesives. The inhalation of asbestos dust may cause bodily harm. Smoking by individuals exposed to asbestos fibers greatly increases this risk.

Existing Floor Coverings

It is always prudent to remove existing floor coverings in order to inspect the soundness of the original substrate. In some cases, you may install Sobella™ over existing resilient floor covering, using either the Fully Adhered or Loose Laid system. The performance of the new flooring, however, is directly dependent on the condition and continued bond of the existing resilient flooring, which can adversely affect the performance properties of the new flooring, such as indentation or adhesive bond. In any case, the existing resilient flooring should meet the following conditions. It should:

- be fully adhered (full-spread) and well bonded to a suitable substrate.
- have no more than two layers of felt backed vinyl.
- be free of all evidence of alkaline salts, hydrostatic pressure and moisture from the substrate.
- not be a foam-backed or thickly cushioned product.
- not be a perimeter-fastened or loose-laid product.
- not be asphalt tile, self-stick tile, rubber tile, or a surface containing residual asphalt adhesive.

If there is any doubt about the suitability of the existing floor, remove it or cover it with an appropriate underlayment.

Using Mannington Embossing Leveler over Existing Resilient Floor Coverings

In most cases, the use of an embossing leveler compound is the most viable solution for preparing an existing resilient floor covering. MVP-2023, when mixed with MVP-2023 Additive, is specifically designed for filling the embossed areas of clean, firmly adhered existing floor coverings. Follow all directions when using MVP-2023. Any time you elect to install a new resilient floor over an existing one, keep in mind the performance of the new flooring is largely dependent on the continued performance of the existing flooring. Remember, the final decision and responsibility for determining the suitability of the existing flooring ultimately rests with the resilient installer.

Cutting & Fitting

You may use pattern scribing, freehand knifing, or direct scribing techniques when installing Sobella™. The material is flexible and will handle easily for 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 Sobella™ only when using the Fully Adhered technique.

One Piece Installation

Thoroughly clean the subfloor, sweep or vacuum to remove all dust and debris.

Remove any quarter round, shoe base or wall base, and undercut any doorways.

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. After the sheet is positioned, weight 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.

FULLY ADHERED

When using the Fully Adhered technique, apply the adhesive with a 1/16" wide, 1/32" deep, and 1/32" apart notched trowel.

After trimming the material to fit the room, tube or lap it back to expose approximately 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.

Immediately after adhesive application, gently position the sheet into the adhesive. Roll the floor covering forward into the adhesive to avoid 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**

When 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.

LOOSE LAID

The most critical requirement when loose laying a one-piece Sobella™ installation is to be certain that the material is laying flat and positioned squarely in the room. In long drops, pull a string down a pattern line to assure that the material is positioned squarely in the work area.

Provide a gap of between 1/8" and a 1/4" around all edges of the Sobella™ flooring. Once the Sobella™ is positioned in the room, allow 15 to 20 minutes for the material to relax and lay flat before the final trimming. Undercut all door casings so the material can be slid under these casings without "pinching" or locking material. When fitting around in-floor forced-air vents, it is necessary to apply a narrow band of adhesive around the vent to prevent air from being blown under the flooring.

Never secure cabinets or other permanent fixtures on top of loose laid Sobella™. Be certain that wall base and transition strips are not fastened into the Sobella™.

Seamed Installation

When the work area requires more than one Sobella™ drop, determine the best possible placement of the seam. **If the work area requires more than one seam, the Fully Adhered method must be used.** Fit and cut the first sheet as in a one-piece installation. Weight this sheet to prevent it from shifting. Position the second sheet in the room and align it to the first sheet for accurate pattern match. Once you have achieved pattern alignment, weight the second sheet to prevent it from shifting.

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 Sobella™ using the "Reverse" or "Do Not Reverse" method (see page 20).

"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.

Seam Cutting

Seaming is one of the most important aspects of resilient sheet installation. Always double-cut seams in Mannington Sobella™ with a new, sharp utility knife blade.

Double-Cutting of Seams

The most accurate method for cutting seams in Sobella™ is double-cutting. In this technique, 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. **The construction of Sobella™ will not permit the product to be compressed or stretched into match.** Overlap the sheets of Sobella™ and bring the pattern into an exact match. The most accurate method of maintaining the pattern grout line width is to make the seam cut along the side of the grout line. 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.

Cut the seam net, not full. Do not add fullness to the cut by placing scrap under the seam. Keep the knife blade parallel to the straightedge, at a 90° angle to the floor covering.

All seams are to be double cut "dry."

When using the Fully Adhered technique, the sheets will be adhered up to a pre-determined dry zone; the seam is cut and then a uniform application of MT 711 is applied. After providing sufficient open time, carefully position the sheets into the adhesive and roll across the seam with a hand roller.

If the Loose Laid system is used, after cutting the seam, apply a 6" band of MT 711 at the seam line, provide sufficient open time and then carefully position the sheet edges into the adhesive. Use caution to prevent the sheet edges from getting into the adhesive. Roll the seam area with a hand seam roller.

Seam Sealing

All seams in Sobella™ flooring must be sealed with Mannington MLG 33 two-part seam sealer. Thoroughly mix all of part A and part B into the supplied VST applicator bottle. When using MLG 33 two-part seam sealer, it is necessary to mix the entire contents of Parts A and B. Once mixed, MLG 33 cannot be saved for re-use. 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. Before sealing the seam, make sure the seam cut is clean, dry, and free of adhesive contamination.

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.

You must apply seam sealer into the seam cut and leave a bead of sealer approximately 1/8" wide centered on the seam.

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.

Finishing and Maintenance

Molding and Base Installation

Protect all exposed edges of the flooring with trim or restrictive molding.

- Always use moldings and transition strips over product edges.
- Nail wood moldings into the wall and not into the floor covering.
- Use metal or vinyl transition or reducer strips where Sobella™ meets other types of flooring, and at doorways.
- Apply a bead of silicone or latex caulk around bathtubs, shower stalls, toilets, and patio doors.

Job Site Cleanup

To enhance the appearance of the finished installation, it is always good practice to thoroughly clean the area before leaving.

- Sweep the floor.
- Remove all scraps and trash from the job site. (Leave any large pieces of flooring, rolled face out, with the customer for future repairs.)
- Remove any adhesive smears or residue from the surface of the flooring with a clean cloth dampened with mineral spirits or lighter fluid.
- If possible, wait 24 hours before moving furniture or appliances onto or across the floor. Always use wood or hardboard runways to move furniture and/or appliances, even when using a dolly. **This is especially important when using the Loose Laid installation method.**
- Leave Mannington maintenance and warranty literature with the customer. These are available from your Mannington Distributor.

Repairs

Small Cuts

Small cuts will eventually gap open. To repair, clean any dirt from the cut and apply MLG 33 seam sealer.

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. Accurately overlay this piece over the damaged area.
- Double 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.
- If the Sobella™ was installed Fully Adhered apply a thin layer of MT 711 to the back of the repair piece and place into position. Roll with a hand roller. Apply MLG 33 seam sealer. Protect from foot traffic until sealer is fully cured.

Sobella™ Installation Guide (continued)

- If the Sobella™ was installed Loose Laid apply a thin layer of MT 711 on the back of the repair piece as well as under the edges of the repair area. Position the repair piece into the cut-out area and lightly roll the area with a hand seam roller. Apply MLG 33 seam sealer. Protect from foot traffic until sealer is fully cured.

Series	Pattern #	Pattern Repeat		Seaming	Pattern Match		Seaming
		Length	Width	Alignment	Length	Width	Alignment
Ardesia	ALT101-ALT104	36"	36"	Do Not Reverse	12"	12"	Reverse
Siena	ALT110-ALT112	36"	36"	Do Not Reverse	12"	12"	Reverse
Timberton	ALT140-ALT121	48"	48"	Do Not Reverse	Random	Random	Reverse
Guadalajara	ALT130-ALT132	36"	36"	Do Not Reverse	9"	9"	Reverse
Hometown Hickory	ALT140-ALT142	36"	48"	Do Not Reverse	Random	Random	Reverse
Modesto	ALT150-ALT153	36"	36"	Do Not Reverse	12"	12"	Reverse
Vesuvius	ALT160-ALT162	36"	36"	Do Not Reverse	7.2"	7.2"	Reverse
Timbercrest	ALT201-ALT202	36"	36"	Do Not Reverse	Random	Random	Reverse
Checkpoint	ALT210	18"	18"	Do Not Reverse	18"	18"	Reverse
Coral Bay	ALT220-ALT222	36"	36"	Do Not Reverse	Random	Random	Reverse
Northcrest	ALT230-ALT232	36"	36"	Do Not Reverse	18"	18"	Reverse
Kingsbridge	ALT240-ALT242	36"	36"	Do Not Reverse	6"	6"	Reverse