INTRODUCTION & PREPARATION

IMPORTANT NOTE - These products should be installed by a professional. There are practices in the application of these products that require professional expertise.

Mannington Commercial manufactures stylish, highly durable flooring and accessories. It is important that our products are properly installed in order to provide maximum serviceable life. It is also important for the installer, before he starts an installation, to verify the correct material, color, quantity and that there is no damage or defects in the materials. If a problem is encountered, a Mannington Commercial representative should be notified of any problems before the application continues.

If storing for more than the 2 days prior to installation, store all materials in a weather-tight enclosure. Do not stack pallets, and do not stack tiles or boxes of tiles any higher than you received them. When handling, keep the tiles face-to-face and back-to-back, just the same as they are packaged. Do not lean the treads or packages of treads up against walls, or other surfaces, this can cause warpage in the nose area. Leave them flat.

In rooms that are exposed to intense or direct sunlight, protect the materials from the sunlight during storage, conditioning before and after installation.

SUBFLOOR TYPES

Wood Stairs
Wood staircases must be smooth, flat, clean, & dry. They must be securely nailed and stable. Fill all cracks, deformations, and depressions with a cement-type latex patching compound such as Mannington MVP 2023 or equivalent. Let patching compound dry thoroughly, and then sand smooth. Do not install over old resilient flooring, or adhesives. Clean all steps thoroughly before installing new material. Remove old adhesives by physical means only (sanding, scraping, etc), do not use any chemicals or solvents.

Concrete Stairs
It is recommended to do a bond test. Test one step or use a 12" x 12" sample of the material to bond on the steps, let sit for 24 hours and check for bond strength. If OK, continue with the installation.

Fill all depressions, cracks, etc. with a cement-type latex patching compound such as Mannington MVP 2023 or equivalent, let it dry thoroughly and sand smooth. All Steel-Troweled, or Power-Troweled, slick finished concrete steps need to be sanded and roughened up before installing.

Ambient temperature is important during installation. But the slab temperature should also be between 65° F to 85° F (18.3° C – 29.5° C) for 48 hours before, during, and for 48 hours after installation. Use a surface thermometer. If the temperature is too cold, it will retard the curing of the adhesive considerably. The colder the surface is, the slower the adhesive cures. If the temperature is above 85° F (29.5° C), the adhesive will set-up rapidly, you will have less working time, and will have to roll very soon. When these temperature conditions exist outside of the recommended range, it causes issues with the adhesives ability to work normally. This in turn causes treads and steps to be rolled too soon, leaving gaps, or rolled too late so that thickness differences occur on the floor, because the adhesive cured before it was rolled down flat onto the substrate.

Steel Stairs
The steps should be carefully cleaned by physical means of wire brush, sandblasting, etc., removing all rust, sealers, coatings, and contaminants. Then the steps should be coated with an anti-corrosive coating to prevent rust, if rust is a concern in your environment. Use Mannington Commercial MR-721 Epoxy adhesive only on this type staircase.

CONDITIONS

Proper ventilation and adequate lighting should be available. Check steps for conformance to the recommendations above. All materials (the flooring products, adhesives, any patching, or leveling compounds, and the sub floor itself) need to be conditioned to 65° F to 85° F (18.3° C – 29.5° C), for 48 hours prior to installation, during installation, and for 48 hours after installation.

Porosity Test – If using the Mannington MR-911 adhesive you will need to test your substrate for porosity. NOTE: Do not assume that wood or concrete are porous, you must test. Test by dropping a few drops of water on the substrate, if they readily absorb within 30 seconds, it is porous, if not, then your substrate should be considered non-porous. The application of the stair treads depends on the porosity of the floor with this adhesive.

EQUIPMENT

Mannington epoxy adhesive MR-721, Mannington MR-911 or Mannington MR-715 Two Part solvent free Epoxy Nose Filler adhesive for stair treads
Mannington MR-101 – for the skirting, risers and any needed wall base
Mixing sticks or drill with mixing paddle
Carpenter's square
Straight edge
Scribe
Utility knife
Chalk line
Tape measure
Hand roller
Sandbags
Recommended trowel – 1/16" X 1/16" X 1/16" square-notched for most applications or 1/8" X 1/16" X 1/8" V-notched for only certain conditions (see instructions below)
Rags
Water
Rubbing alcohol

INSTALLATION OF STAIR TREADS

Fitting
Stair treads, risers, and skirting / stringers must be scribed and/or measured on each step and trimmed to fit each step and dry laid on each step prior to installing. Leave a 1/16" (1.6mm) gap at either side of the tread to allow for some expansion against the stringer.

IT IS THE INSTALLERS RESPONSIBILITY TO INSPECT THE DRY LAID INSTALLATION AND NOTIFY THE APPROPRIATE AUTHORITY OF ANY IMPERFECTION, OR IRREGULARITIES PRIOR TO FINAL ADHESIVE INSTALLATION.

Stringer / Skirting Installation
If skirting / stringers are required, they must be installed first.

Make a template of cardboard or other suitable material, measuring the height and depth of each step, and transferring that data to your template. Rough cut the template, set in place and then trim to form a snug fit to the stairwell. Lay the template over the skirting / stringer and transfer the pattern using an awl. Cut the skirting / stringer material and check the fit. Trim to form a snug fit. If the wall is porous, use the Mannington MR-101 wall base adhesive. If the wall is non-porous, use Mannington MR-911 and follow the instructions on the label for non-porous applications.

Install skirting / stringers, roll with the hand roller to insure good adhesive contact.

ADHESIVES

Mannington MR-721, Mannington Commercial epoxy is the most commonly used adhesive for our stair treads. Pour either unit A or B into the other unit and mix until homogenous, no more and no less. Insufficient mixing will cause adhesive failures, and over-mixing breaks down the viscosity of the adhesive and it can become runny. Pot life is short, around 15-20 minutes (depending on temperature and humidity, hot and dry is quicker, and cold and moist is slower).

Once mixed, it is best to get the material out of the can and onto the installation surface (or another surface to work off of) as soon as possible. The air space in the can is small and the chemical reaction can happen very quickly, with the can getting hot to the touch.

It is recommended that you use mixing sticks in a folding and stirring fashion until mixed, to avoid over-mixing. If you use a mixing paddle on a drill, keep your RPMs low and be careful not to over-mix, just mix enough to bring it together to a homogenous state, no more. Porosity testing of the substrate is necessary, see porosity testing section above. Mannington MR-721 can be used on porous or non-porous applications.

Mannington MR-911, a one-part acrylic adhesive can be used on stair treads if there is no threat of moisture. It can be used on wood or concrete, but the substrate must be tested for porosity. The label on the can thoroughly explains the simple porosity test (a couple of drops of water is all that's required, and observation). The adhesive must be used accordingly for non-porous conditions, or for porous conditions. The label describes both methods. Essentially, if its porous, you can lay into it wet, if non-porous, you must let it flash-off first, the label explains.

Mannington MR-101, a wall base adhesive that can be used on the risers, skirting / stringers, or any wall base needed for the stairwell, if the wall is porous.

ADHESIVES continued

Mannington Double Faced Tape is a 2-sided, pressure sensitive tape for installing treads and risers. There is a 1" wide roll for use with the stair tread nose, and 6" wide rolls for the step part of the tread and the riser. Use 2 - 6" wide strips for stair treads and 1 - 6" wide strips for riser. This product requires a very clean substrate.

WARNING - ANY EXCESS ADHESIVE THAT COMES UP BETWEEN SEAMS OR AROUND THE PERIMETER OF PARTS, MUST BE CLEANED UP IMMEDIATELY WITH WATER OR RUBBING ALCOHOL AND A RAG. IF THAT EXCESS ADHESIVE HARDENS ON YOUR FLOORING IT WILL BE PRACTICALLY IMPOSSIBLE TO CLEAN OR REMOVE WITHOUT DAMAGING THE TILE OR TREADS.

TROWEL SIZE

For most conditions, use a 1/16" X 1/16" X 1/16" square-notched trowel. If your steps are new, porous wood, or new concrete with very open pores, use a 1/8" X 1/16" X 1/8" V-notched trowel.

APPLICATION

Note: Mannington Rubber, Type TP and Vinyl, Type TV stair treads require the use of Mannington MR-715, a two part Epoxy Nose Filler. This prevents subsequent nose flexing when there is a gap between the stair step and the stair tread nose.

Using an Epoxy Caulking Gun or knife place an adequate amount (about a 1/4" diameter bead) of Mannington MR-715 two-part Epoxy Nose Filler into the nose of the stair tread. Completely fill the void between the stair step and stair tread nose.

Be sure to keep the adhesive used for the installation back about 1/2" from the area you applied the two Part Epoxy Nose Filler. This will prevent interference between the two adhesives.

Caution: Insufficient application of the Nose Filler can result in nose cracking and breaking once the stair treads are subjected to commercial traffic.

Spread adhesive on the tread and riser. Use Mannington MR-101 on the riser, if substrate is porous, or use same adhesive as the tread otherwise. If using the tape, then lay the 1"(25.4mm) wide strip on the nose (leaving the peel paper in place) and the 6"(0.15m) strips across the step (leaving peel paper in place), until it is covered. Apply 2 pieces of 6" wide tape to the stair step and one 6" wide tape to the riser. Overlapping the pieces of tape, or leaving a gap between the tape is acceptable. This depends on the stair step depth and the height of the riser.

For Mannington MR-911, remember to test for porosity, and use adhesive according to whether or not it is porous. If porous, let adhesive sit for 5-10 minutes, then lay into it wet. If non-porous, let the adhesive dry to the state where nothing comes off on your finger from touching it. At that point, start installing, you have 45 minutes to work. Only apply enough adhesive to allow for 45 minutes of application. If you allow the dry-state to sit open longer than 45 minutes, you lose bond-strength and prevent adhesive transfer between the step and the stair tread.

Position and place tread onto step, starting at the nose, and pushing back and pressing down until it is all in place. Roll tread and riser immediately after application with the hand roller to ensure good adhesion. If using the tape, peel the paper from the nose and set your nose first, while holding back the rest of the tread. Peel the paper off strips as you lay the tread back into place from the nose, being careful to keep the tread in proper position. Roll immediately with the hand roller. Make sure that each tread is fit tight to the nose, and is adhered to the nose. Once the installation is complete, roll the treads again, firmly. Cleanup any excess adhesive on the flooring surface while its wet with water, or rubbing alcohol, and a rag. Do not allow it to harden, it cannot be cleaned or removed without damage to the stair treads, if hardened.

FINAL STEPS

Insure that all areas are securely bonded. Sandbag any areas where needed to insure bond in seams, edges, or any potential problem area.

Keep traffic off for at least 12 hours, and do not allow heavy foot traffic for a minimum of 24 hours, 72 hours is best if possible.

Permit no heavy equipment or rolling loads for 72 hours.

Protect from other construction by covering until construction is complete.

Do not perform maintenance for 72 hours.

Maintain 65° F to 85° F (18.3° C – 29.5° C), for the next 48 hours.

Inspect the floor 2.5 hours after installation; roll a 3rd time if necessary.