



NOTICE:

TO OBTAIN THE MOST UP-TO-DATE VERSIONS OF LG FLOORS PRODUCT SPECIFICATIONS, INSTALLATION AND MAINTENANCE RECOMMENDATIONS AND WARRANTY, PLEASE VISIT:

www.lgfloors-usa.com.

INSTALLATION GUIDELINES

No floor covering is better than the subfloor over which it is installed. The finished appearance and performance of the floor covering will be determined and affected, in part, by the condition of the subfloor. It is essential that all subfloors be rigid, finished, smooth, flat, level, permanently dry, clean and free of all foreign materials such as dust, paint, grease, oils, solvents, curing and hardening compounds, sealers, asphalt and old adhesive residue. Subfloor preparation should be done with the permanent HVAC set at a minimum of 68°F (20°C).

Vacuuming the subfloor with a commercial shop vac is a preferred method of removing dirt and dust. For concrete floors, damp mopping the subfloor is an excellent way to remove fine dust. A clean subfloor is essential for proper bond between the subfloor and the floor covering.

Wherever trade names, trademarks, product names, or company names are mentioned; they are used only as a reference to establish a comparative standard of quality. It should not be assumed that these products are the only products for the suggested or intended use. Also, it does not mean that other products of similar or equal quality may not be suitable.

GRADE LEVELS

1. On Grade – A location for a finished floor with no portion below ground level, and with the floor and the ground in contact or separated by less than 18 inches of well-ventilated space between the bottom of the lowest horizontal structural member and the ground at any point.
2. Above Grade – A location for a finished floor where the floor is not in contact with the ground and which provides at least 18 inches of well-ventilated space between the bottom of the lowest horizontal structural member and the ground at any point.
3. Below Grade – A location for a floor structure, which is in contact with the ground or with less than 18 inches of well-ventilated space between the bottom of the lowest horizontal structural member and the ground, at any point or the entire floor is below ground level.



DEFINITIONS

1. Subfloor – That structural layer intended to provide support for design loadings. The substrate for the underlayment.
2. Underlayment – The layer of material installed on or over the subfloor to provide a smooth, clean surface to receive the resilient floor covering.
3. Subfloor – Underlayment combination- Designed to meet the structural requirements and provide a smooth surface to receive the floor covering. These typically are not suitable for resilient floor covering and require an underlayment be installed.

WOODEN SUBFLOORS

Wood floors should be double construction with a minimum thickness of 1". The floor must be rigid, free from movement and have at least 18" of well-ventilated air space below. LG Chem floor coverings should not be installed over wooden subfloors built on sleepers over, on grade, or below grade concrete floors unless specific design has been undertaken to eliminate the chance of failure due to the excessive moisture vapor emissions from the concrete.

Underlayments

Underlayment panels are used to correct deficiencies in the subfloor and to provide a smooth, sound surface on which to adhere the resilient flooring.

APA underlayment grade plywood, minimum ¼" thickness, with fully sanded face is the preferred panel. The underlayment must be free of any foreign material that may cause staining, such as patching compounds, sealers, inks, solvents, etc.

The underlayment should be installed with dispersion type staples placed every 4 to 6 inches in the field and every 2 to 3 inches along the seams. Sanding is a preferred method for smoothing joints.

The American Plywood Association offers other acceptable guidelines for proper wooden subfloor installation. The above mentioned is not considered the only procedure for a successful installation. Always install and fasten underlayment panels according to the manufacturers' recommendations.

There are certain types of subfloors and underlayment that through years of experience are known to be prone to failure and are therefore NOT recommended.

Particle board/chip board, tempered hardboard is not suitable to install LG floor coverings over.

Lauan board is not considered a suitable underlayment to install LG floor coverings over. In some cases permanent staining to resilient flooring has occurred from chemicals used in the construction of lauan board. This is also true when using pressure treated or fire retardant wood.



Regardless of which underlayment is used, any failures in the performance of the underlayment or LG floor coverings due to the underlayment manufacturer and not with LG Flooring

Strip Wood/Plank Flooring

Due to expansion and contraction of the boards during seasonal changes, LG recommends the use of ¼" or thicker underlayment panels be installed over these types of floors.

Concrete Floors

Floors shall be smooth, rigid, flat, level, permanently dry, clean and free of all foreign material such as dust, paint, grease, oils, and solvents, curing and hardening compounds, sealers, bond breakers, asphalt and old adhesive residue.

Imperfections such as chips, spalls, cracks and/or corrective leveling shall be repaired with cementitious based patching and/or underlayment materials. Expansion joints in the concrete are designed to allow for the expansion and contraction of the concrete. If the floor coverings are installed over the expansion joints, it more than likely will cause adhesive bond failure and bubbling or buckling of the flooring material. Therefore, flooring products should not be installed over expansion joints, and expansion joint covers designed for use with resilient floorings should be used.

Isolation, construction and control (sawcut) joints may be successfully patched once the concrete is thoroughly cured, dry and climatized. If any movement occurs in the concrete after the flooring has been installed it may also cause the joint to telegraph.

It may be difficult to determine if any curing or hardening compounds and/or sealers have been used. Therefore, an adhesive bond test should be conducted (and passed) prior to beginning the installation.

Patching Materials

There are many brands available but basically there are two types of patching materials for the use of smoothing and patching subfloor irregularities.

One type is referred to as calcium sulfate/plaster/gypsum base compounds. This type of patch may harbor and promote mildew growth, have low indentation resistance and poor bond and adhesion strength. The use of these compounds is not recommended.

The second type is a cementitious compound usually with a latex liquid binder. This type of patch will not promote mildew growth; have much higher psi strength and better adhesion properties to the subfloor. LG Flooring recommends only the use of cementitious base patching and leveling compounds. Only use the highest quality materials.

Regardless of which patching or leveling compound is used, any failures in the performance of the compound or LG floor coverings due to the compound is the responsibility of the compound manufacturer, not with LG Flooring.



Many failures have been directly attributed to the improper mixing and use of the leveling and patching compounds. It is essential that the manufacturer's mixing and application instructions be strictly followed.

Old Adhesive Residue

If a residue is asphaltic (cut-back) or other type of adhesive is present, it must be dealt with in one of two ways:

It may be mechanically removed such as: bead blasting or scarifying.

A self – leveling cementitious underlayment may be applied over it. Check with the underlayment manufacturer for suitability, application instructions and warranties.

WARNING!

Warning regarding complete adhesive removal: some solvent based 'cut-back' Asphaltic adhesives may contain asbestos fibers that are not readily identifiable. Do not use power devices, which create asbestos dust in removing these adhesives. The inhalation of asbestos dust may cause asbestosis or other serious bodily harm. Smoking greatly increases the risk of serious bodily harm.

Never use solvents or citrus adhesive removers to remove old adhesive residue. Residue left within the subfloor will affect the new adhesive and the new floor covering.

Existing Resilient Floors

Most LG floor covering may be installed over a single layer of non-cushioned resilient flooring provided it meets certain conditions:

Concrete floors that are on, above and below grade – one calcium chloride moisture test (minimum of three) or ASTM F2170, In-Situ Relative Humidity of the Concrete. should be conducted for every 1000 sq. ft. of flooring. The test results should not exceed 5 pounds per 1000 square feet per 24 hours for the calcium chloride test and 75% for the in-situ relative humidity. The existing flooring and adhesive must be removed where the test is conducted. (ASTM 1869-04)

The existing flooring must be fully adhered and well bonded.

The existing flooring must not be embossed or textured enough that it will telegraph through the new flooring.

All waxes and finishes must be removed, the stripped floor rinsed with clean water and a pH test should be conducted to assure stripper residues have been removed. Use neutralizing rinse, if needed. Also conduct an adhesive bond test to ensure proper bond between the adhesive and the existing flooring material.

Cuts, gouges, dents and other irregularities must be repaired or replaced.

The substrate and underlayment must meet the recommendations of the existing and the new floor covering.

The use of embossing levelers is not recommended for commercial installations.



Note: Application of a skim coat of patching material over the existing resilient flooring may cause more problems than it resolves; such as bonding failures, cracking and indentations.

Note: The responsibility of determining if the existing flooring is suitable to be installed over rests solely with the installer and flooring contractor. If there is any doubt as to its suitability, it should be removed or an acceptable underlayment installed over it.

Installations over existing resilient flooring may be more susceptible to indentation, and there is always a possibility the existing flooring may telegraph through. Remember, you are no better than what you go over.

POURED FLOORS

(Epoxy, Polymeric, Seamless)

LG floor coverings may be installed over most poured floors provided they meet the following conditions:

Concrete floors that are on, above and below grade – one calcium chloride moisture test (minimum of three) or ASTM F2170, In-Situ Relative Humidity of the Concrete. should be conducted for every 1000 sq. ft. of flooring. The test results should not exceed 3 pounds per 1000 square feet per 24 hours for the calcium chloride test and 75% for the in-situ relative humidity. The existing flooring and adhesive must be removed where the test is conducted. (ASTM 1869-04)

It must be totally cured and well bonded to the concrete. It must be free of any residual solvents and petroleum derivatives.

Loose, damaged areas and irregularities must be repaired with a cementitious based patching compound.

The texture must be smooth. Sand or wet stone the surface to remove any grit and texture.

All waxes and finishes must be removed and rinsed with clean water and a pH test should be conducted to assure stripper residues have been removed.

After area has been properly prepared, adhesive bond tests must be conducted (and passed) with the flooring and adhesive that will be used on the job. Remember, the weakest link should always be the adhesive.

The responsibility of determining if the existing flooring is suitable to be installed over rests solely with the installer and the flooring contractor.



WARNING!

Do not sand, dry sweep, dry scrape, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining felt or asphaltic 'cut-back' adhesives. These products may contain either asbestos fibers or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content. The RFCI'S Recommended work practices for removal of resilient floor coverings are a defined set of instructions which should be followed if you must remove existing resilient floor covering structures.

Radiant Heated Floors

LG floor coverings may be installed over radiant heated floors provided the operating temperature does not exceed 85°F. To allow proper adhesion of the adhesive to the subfloor, the radiant heating system should be lowered, or turned off for at least 48 hours prior to installation of the flooring material. This is to ensure the surface temperature of the subfloor does not exceed 65°F during the installation of the flooring material. The room temperature must be maintained at a minimum of 65°F prior to, during and after installation for 72 hours after which the temperature of the radiant heating system can be increased. When raising the floor temperature, do so gradually so that the substrate and the flooring material can adapt to the temperature change together. A rapid change could result in bonding problems. For more information, contact LG Technical Services.

POROUS AND NON – POROUS SURFACES

Adhesive Bond Test

In several locations throughout the area to receive the flooring, glue down 3'x3' pieces of flooring with the recommended adhesive. Bond tests give the installer the opportunity to evaluate the porosity of the subfloor and determine the correct timing for application of the flooring material. The floor should be smooth, dry and allowed to set for 72 hours before attempting to remove. It is also a good practice to place your bond test over some areas where a patching compound has been used in order to check the bond strength of the patching compound. When removing the test floor check for looseness around the edges of the material, moisture always takes the path of least resistance. A proper bond test should show no signs of moisture and it will restrict all movement of the material. When peeling back the material you should see proper transfer of adhesive between the subfloor, and the flooring material. If there are any doubts as to the results of the bond test you should always call the manufacturer.

Prior to the bond test check the concrete for its porosity. The easiest way to do this is by taking a straw or eye-dropper of water; place a row of water drops on the surface of the concrete. If within 60 seconds the drops are not being absorbed into the concrete, then there is a possibility of curing compound, sealers, bond breakers, or an over troweled surface. The bond test should confirm these possibilities. In such situations, bead blasting or scarifying the subfloor may be necessary prior to installation.

Another alternative is the use of a priming agent. Primers can improve bond strength, eliminate moisture from the adhesive being absorbed too fast and improve working time. Check with the manufacturer of these products for proper application guidelines and warranties.



Non-porous substrates such as metal, terrazzo, ceramic tile, or marble can be installed over. However, the same guidelines as mentioned for installing over concrete or existing floor coverings should be followed. A bond test is essential!

Note: Remember the weakest link should always be the adhesive. If it takes sufficient force to remove the test flooring but all, or the majority of the adhesive is adhered to the back of the material, this would be considered unacceptable.

Moisture Testing

It is essential that moisture tests be taken on all concrete floors regardless of age or grade level with a minimum of three tests for the first 1000 square feet. The test should be conducted according to ASTM F1869-04, Calcium Chloride Moisture Emission Test, or ASTM F2170, In-Situ Relative Humidity of the Concrete.

One test should be conducted for every 1000 square feet of flooring. The test should be conducted around the perimeter of the room, near columns and where moisture may be evident.

The results of F1869 Calcium Chloride moisture vapor emissions from the concrete shall not exceed 5.0 lbs. per 1000 sq. ft. in 24 hrs. for all vinyl sheet installations and 5.0 lbs. per 1000 sq. ft. in 24 hrs. for all tile installations.

For the most accurate results, the weight of the calcium chloride dish should be made on the job site at the start and end of each test.

The results of F2170 In-Situ Relative Humidity shall not exceed 75% for sheet and 80% for tile.

A diagram of the area showing the location and results of each test should be submitted to the architect, general contractor or end user.

If the test results exceed the limitations, the installation should not proceed until the problem has been corrected.

Note: It may not be the floor installer's responsibility to conduct the test. It is, however, the floor covering installer's responsibility to make sure these tests have been conducted and that the results are acceptable prior to installing the floor covering.

When moisture tests occur, the results indicate the conditions only at the time of the test. The flooring contractor cannot be held responsible if moisture appears in the future, causing a failure.

pH Test

It is essential that pH tests be taken on all concrete floors regardless of the age or grade level. During the curing process of concrete or when moisture is present and working its way through the concrete, it dissolves alkali salts that are contained in the concrete. When the moisture reaches the surface of the concrete it evaporates, leaving behind alkali salt residue on the surface. In the presence of moisture these alkali salts can and will cause several installation and material problems, such as adhesive failure, discoloration, and shrinkage and softening of the floor covering.

pH tests should be conducted in several locations throughout the area.



If moisture tests are at acceptable levels but the pH tests exceed 9, then a light sanding of the concrete surface and vacuuming up the residue will usually resolve the problem.

Retest to assure the pH has been neutralized.

Job Conditions

The installation of the resilient flooring should not begin until the work of all other trades has been completed, especially overhead trades.

Areas to receive flooring shall be clean, fully enclosed, weathertight with the permanent HVAC set at a uniform temperature of at least 68°F. The building's permanent HVAC system must be on and maintained consistently at a range of 65° - 85° F, (20° - 29° C) for at least 5 days. The flooring material should be conditioned in the same manner. Maximum temperature should not exceed 100°F after installation.

Areas to receive flooring should be adequately lighted to allow for proper inspection of the substrate, installation and seaming of the flooring and for final inspection.

Note: Conducting an adhesive bond test, moisture test and pH test prior to having a controlled environment may give false results. Dramatic changes may occur once a controlled environment is established.

MATERIAL STORAGE AND HANDLING

INSPECTION OF MATERIAL

All flooring materials and adhesive should be acclimated to the jobsite conditions for a minimum of 48 hours prior to beginning the installation. Store and secure all rolls standing upright. Store cartons flat and squarely on top of one another, not on edge.

When more than one roll of a color is being installed, all material should be from the same batch and the rolls must be installed in consecutive order. If material from more than one batch is to be used, the job should be laid out so that different batch numbers are not installed side by side.

When installing sheet products, all sheets must be installed running in the same direction.

Visually inspect all material before installation. Contact LG Floors Customer Service Department immediately if any problems exist. Any material installed with visual defects may not qualify as a valid claim.



INSTALLING SHEET VINYL FLOORING

Naturelife, Artwalk, Rexcourt
General:

Ensure that moisture tests have been conducted and that the results do not exceed 5.0 lbs. per 1000 sq. ft. in 24 hours as per ASTM F-1869-04, or 75% In-Situ relative humidity when tested according to ASTM F-2170.

pH of concrete subfloor surface is no greater than 9.

A bond test is conducted and passed

The permanent HVAC system turned on and set to a minimum of 68°F (20°C) for a minimum of 72 hours prior to, during and after installation. After the installation, the temperature should not exceed 100°F.

Flooring material and adhesive has been climatized to the installation area for a minimum of 24 hours prior to installation.

Use only LG Flooring adhesives.

Use a 1/32" x 1/16" x 1/32" notch trowel only.

Material should always be visually inspected prior to installations. Any material installed with visual defects will not be considered a legitimate claim as it pertains to labor cost.

LG Flooring sheet vinyls are dimensionally stable. They will not shrink or compress. If cut too full, it may result in a bubble.

Install all cuts and rolls in consecutive sequence.

Do not reverse sheets for seaming.

Ensure that all recommendations for subfloor and jobsite conditions are met prior to beginning the installation. Once the installation has started, you have accepted these conditions.

When installing vinyl back sheet flooring, conducting an adhesive bond test is essential to determine the proper timing for application of the flooring material.

CUTTING AND FITTING SHEETS

LG sheet vinyls are very flexible and easy to handle. In most cases, a qualified installer will be able to hand fit the material in areas where base or trim moldings will be installed after the installation is completed.

Cut the required length off the roll, including enough to run up the wall 2" – 3" at either end.



Push the length of the sheet as close to the starting wall as possible, letting the extra length run up the wall at each end.

Set the scribes to a minimum of 3/8" more than the greatest distance between the wall and the flooring material. Hand fit or scribe the shape of the wall onto the flooring. Next, cut the material along the scribe line using a hooked blade knife.

Push the fitted sheet tightly against the wall.

Seaming

Seams may be cut by either, overlap and double cut or by straight edging one side and under scribing the second sheet.

Under scribe method

On non-patterned material, Trim approximately 1/2" off the salvage edge of seam with a straightedge and sharp knife. Cut second sheet with proper extra length.

Position second sheet with a 1/2" – 1" overlap over first sheet at the seam.

Under scribe seam.

Repeat steps 1, 2, and 3 for as many sheets as necessary to complete the area of those sheets that can be installed that day.

Double cut method

Over lap the salvage edges to align the pattern width and length. On Naturelife™ & Rexcourt wood plank design, over lap the salvage edge approximately 1/2" to align the bevel edge of the planks.

Place a 4" wide scrape of material under the seam area. Place a straight edge directly over the beveled edge of the plank, and using a new razor blade, hold the knife straight up and down and cut through both pieces in one cut.

Laying sheets into adhesive

Lap back all overlapped sheets as one, half way back. Do Not Back Roll Vinyl Backed Floorings.

Snap chalk line along area where adhesive will be spread to assure an even and straight line of adhesive. Spread adhesive with proper notched trowel over entire area. Be very careful not to leave any adhesive ridges or puddles.

Note: On non-porous subfloors, let adhesive flash off before laying flooring on it. On porous subfloors, the flooring may be laid in the wet adhesive.



Note: The subfloor porosity and room temperature conditions (temperature, humidity, etc.) can affect the working time of the adhesive.

Push lapped flooring from the fold onto adhesive, working toward the wall. DO NOT FLOP MATERIAL IN – air will be trapped, causing bubbles.

Roll floor with a minimum 100lb roller in both directions. Roll across width first, then across length.

Note: To ensure proper bonding of the material, it is recommended to roll in the material next to the walls with a hand seam roller.

After material has been laid into the adhesive, underscribe the seams using the short scribes with either the scribe blade or scribe pin.

Note: Set scribes so that the seam will have a slight gap, about half the thickness of a razor blade. If cut too full, it will result in bubbles or ridges. Heat welding LG vinyl sheet flooring is always recommended (except Artwalk).

Cut material along scribe line with hooked knife.

Roll the seam with a hand roller.

Repeat the same procedure on the other half of the room.

Note: Take caution not to overlap the adhesive lines or leave ridges of adhesive. It may telegraph through the material.

9. Heat weld seams the following day. See heat weld instructions.

HEAT WELDING

Heat welding is the recommended procedure for all seams, coving and corner fill pieces of LG sheet vinyl's (except Artwalk). Heat welding provides for strong, watertight and hygienic seams.

The welding cord is made from pure PVC which is designed to melt at the same temperature as the PVC of the sheet flooring. This is why you should never use welding rods other than those specified for the product you are installing.

Heat welding should be done after the flooring adhesive has set up, usually the following day.

It is always a good idea to practice on a scrap piece of material first to ensure proper temperature and speed.

Procedure:

Seam edges should be tight. Gaps in the seams will deter a quality weld.



Groove seam using a hand groover or electric router. The depth of the groove should be about 2/3 the depth of the material. Be careful not to go too deep. This is very important to ensure proper strength and bonding of the welding rod.

The ends of the seam, where the electric router cannot reach, must be completed using the hand groover.

Clean all grooves thoroughly.

Use only professional quality welding guns that will maintain the proper temperatures. Use 5 mm speed tip.

Preheat welding gun for several minutes before beginning. Temperature should be set at 4280 F. (Note: It is recommended to test-weld a piece of scrap material to insure proper heat settings and weld speed.)

Cut length of welding rod long enough to weld over half the seam

Insert rod through welding nozzle about 3" – 4", hold on to excess and immediately begin welding.

The welding tip should always be parallel to the flooring and directly over the groove.

Determine the correct welding speed by ensuring that the welding rod actually melts into the groove. A small bead should form on either side of the welding rod.

While the welding rod is still warm, trim the excess material with the crescent knife and trim plate in one continuous movement.

If the welding rod is not properly bonded, a new piece of rod can be fused in and trimmed.

Repeat the same procedure on the other half, starting from the opposite wall working toward the center. Overlap the welding rod approximately 1" where they join.

After the rod has cooled to the touch, make the final trim using only the crescent knife.

If desired, glaze the trimmed weld rod using a heat gun with no nozzle. This will close the pores of the rod and bring up higher luster level.

Avoid rolling load traffic for at least 72 hours. If rolling loads cannot be avoided, protect the new flooring with wood panels.

CHEMICAL WELD

Ensure seam is completely clean and dry.

Thoroughly shake the chemical seam sealer for proper mixing.

Pour entire contents of sealer into applicator bottle.



Insert the tip of the LG welding applicator down into the seam. Pull back at a steady pace applying a constant pressure on the bottle, applying enough sealer to seal the edges of the sheet and leaving a small bead of sealer on the surface of the seam.

Keep all traffic off the seam for a minimum of 24 hours.

PROTECTION – ALL PRODUCTS

Protect all installed floors until the project is completed and the space is occupied.

Furniture, fixtures, equipment, appliances and any other items contacting the floor should use a footing, castor, glide or fitting designed for resilient floors, with at least a 1-inch flat surface area.

Wheels supporting rolling loads should be flat, not convex, with at least 1-inch surface area contacting the floor.

The use of walk-off mats at areas of a building's ingress and egress will greatly enhance the appearance of a floor by reducing the amount of soil, dirt, sand, salt, grit and other abrasive and soiling substances.



INSTALLATION OF ESD TILE

GENERAL

Ensure that moisture tests have been conducted and that the results do not exceed 5.0 lbs. per 1000 sq. ft. in 24 hours as per ASTM F-1869-04, or 80% In-Situ relative humidity when tested according to ASTM F-2170.

pH of concrete subfloor surface is no greater than 9.

A bond test has been conducted and passed

The permanent HVAC system has been turned on and set to a minimum of 68° F (20° C) for a minimum of 72 hours prior to, during and after installation. After the installations, the maximum temperature should not exceed 100° F.

Flooring material and adhesive has been climatized to the installation area for a minimum of 24 hours prior to installation.

Only LG conductive adhesive may be used

Use a 1/16" x 1/16" x 1/16" notch trowel only.

Material should always be visually inspected prior to installation. Any material installed with visual defects will not be considered a legitimate claim as it pertains to labor costs.

Make sure all material is from the same batch number. Install tiles all in same direction (arrows are on back of tile)

Ensure that all recommendations for subfloors and jobsite conditions are met prior to beginning the installation.

Once the installation has started, you have accepted these conditions.

Layout and Installation of ESD Tile

LG StaticPulse™ tile is installed using conventional installation techniques.

It is customary to start from the center of the room. It may be simpler to work lengthwise from one end, using the center line as a guide.

The center line is drawn as follows:

A chalk line is snapped from center of wall

A – B (= E) to the center of wall C – D (=F)

The center of EF is found (M).

Draw a perpendicular line through M using the 3:4:5 method to establish G – H

Starting at center point (M), measure out lengthwise to the walls to make sure you will have at least a half of a tile at the border.

Adjust lines E – F and G – H if necessary.



ESD Adhesive

Use only the LG Chem. 5100 or LG Chem. 5500 Conductive Adhesive and a 1/16" x 1/16" x 1/16" notch trowel blade. Follow the instructions on the adhesive container.

Note: There are no substitutes allowed.

Transfer

Only spread as much adhesive as you can install tile while still wet. Proper transfer is essential to proper ESD control.

Laying ESD Tile

Begin laying tile at the center point ensuring that the tile is laid exactly along the chalk line. If the first few tiles are not installed correctly, it will affect the entire installation.

Tile must be installed into wet adhesive. If subfloor is non-porous, allow adhesive to flash off slightly, but do not let dry.

Roll immediately with a minimum 100 lb roller.

Since it takes time to scribe and cut the border tiles, it is advisable to spread the adhesive only where full tiles will be laid. After the field is complete, cut the border tiles in, then spread adhesive.

Install all tiles running in the same direction. There are directional arrows on the back of each tile.

Grounding

Grounding of the ESD tile should be done a minimum of once every 2,500 sq. ft. of uninterrupted tile. The ground points should be determined prior to installation of the tile.

Use a 1" x 18" x .004" copper foil strip. Place half of the strip (9") in the wet adhesive and spread additional adhesive on top of the copper strip, lay the tile over it. The loose end of the copper strip is mechanically attached to the ground point. The ground strip should be adequately protected to insure it is not damaged.

Note: It is the floor contractor's responsibility to discuss the placement and connection of the grounding straps prior to the installation. This will aid in avoiding any controversies once the job is started.

Heat Welding Seams

StaticPulse™ tiles may be heat welded using the procedures described in the "Heat Welding" section.

Flash Coving

StaticPulse™ can be easily flash coved using standard flash coving procedures. Again, since it takes time to scribe



and cut the border tiles, it is advisable to spread the adhesive only where full tiles will be laid. After the field is complete, cut the border/cove tiles in, then spread adhesive and install tiles within 20 minutes.

Testing

After installation is completed, test flooring with megaohm meter, according to the most current revision of ESD STM7.1, ASTM F-150, or NFPA 99. All measurements must be recorded for warranty registration .

PROTECTION

Protect all installed floors until the project is completed and the space is occupied.

Furniture, fixtures, equipment, appliances and any other items contacting the floor should use a footing, castor, glide or fitting designed for resilient floors, with at least a 1-inch flat surface area.

Wheels supporting rolling loads should be flat, not convex, with at least 1-inch surface area contacting the floor. The use of walk-off mats at areas of a building's ingress and egress will greatly enhance the appearance of a floor by reducing the amount of soil, dirt, sand, salt, grit and other abrasive and soiling substances.

DO NOT WAX OR PUT A FINISH ON ESD FLOORS.

TILE INSTALLATION

Deco Wood, Deco Stone, Impression

General

Ensure that moisture tests have been conducted and that the results do not exceed 5.0 lbs. per 1000 sq. ft. in 24 hours as per ASTM F-1869-04, or 80% In-Situ relative humidity when tested according to ASTM F-2170.

pH of concrete subfloor is not greater than 10.

A bond test is conducted and passed.

The permanent HVAC system is turned on and set to a minimum of 68° F (20° C) for a minimum of 72 hours prior to, during and after installation. After the installations, the maximum temperature should not exceed 100° F.

Do not stack more than 5 cartons high.

Flooring material has been climatized to the installation area for a minimum of 24 hours prior to installation.

Only LG Chem. adhesive may be used.

Use a 1/32" x 1/16" x 1/32" U-notch trowel only.

Material should always be visually inspected prior to installation. Any material installed with visual defects will



not be considered a legitimate claim as it pertains to labor cost.

Make sure all material is from the same batch number.

Install tiles running in same direction (arrows are on back of tile).

Ensure that all recommendations for subfloor and jobsite conditions are met prior to beginning the installation. Once the installation is started, you have accepted those conditions.

LAYOUT AND INSTALLATION

LG tile is installed using conventional tile installation techniques. It is customary to start from the center of the room. In corridors and small spaces, it may be simpler to work lengthwise from one end, using the center line as a guide.

The center line is drawn as follows:

- 1) a chalk line is snapped from center of wall A – B (=E) to the center of wall C – D (=F).
- 2) The center of line E – F is found (M). Draw a perpendicular line through M using the 3:4:5 method to establish G – H
- 3) Starting at center point M, measure out lengthwise and widthwise to the walls to make sure you will have at least a half of a tile at the border.
- 4) Adjust lines E – F and G H if necessary.

ADHESIVE APPLICATION

Deco Wood, Deco Stone and Impression - Use only the LG Chem. 2100 or 3100 adhesive and a 1/32" x 1/16" x 1/32" U-notch trowel.

In most cases, the tile should be placed immediately into the adhesive, before the adhesive has had an opportunity to dry. Good transfer of adhesive to the backing of the tile is essential for proper bond.

The installer must understand, however, that subfloor porosity and room environment (temperature, humidity, air circulation, etc.) may affect the working characteristics of the adhesive (open time and working time).

When installing over non-porous substrates such as existing flooring, terrazzo, etc. A short open time may be appropriate, but under no circumstances should the adhesive be allowed to dry before placing the tile into the adhesive.

Immediately after placing the material into the adhesive, roll in both directions with a minimum 100 lb roller.



INSTALLATION

1. Begin laying tile at the center point, ensuring that the tile is laid exactly on the chalk lines. If the first few tiles are not installed correctly, it will affect the entire installation.
2. Because tile must be installed into wet adhesive, do not spread adhesive in an area larger than tile can be installed while the adhesive is still wet.

Since it takes time to scribe and cut the border tiles, it is advisable to spread adhesive first only where full tiles will be laid.

When the field is complete, scribe and cut the border tiles before the adhesive is spread. When fitting is complete, adhesive can be spread in the border area and border pieces can be installed and rolled while the adhesive is still wet.

PROTECTION – ALL PRODUCTS

Protect all installed floors from soil, scratches and damage until the project is completed and the space is occupied. Use heavy duty construction paper, wood panels, or whatever is required to sufficiently protect the installed floor surface from any potential soiling, scratching or damage. Do not tape any coverings to the floor surface. Adhesive residues may damage the floor finish.

Furniture, fixtures, equipment, appliances and any other items contacting the floor should use a footing, castor, glide or fitting designed for resilient floors, with at least a 1-inch flat surface area.

Wheels supporting rolling loads should be flat, not convex, with at least 1-inch surface area contacting the floor.

The use of walk-off mats at areas of a building's ingress and egress will greatly enhance the appearance of a floor by reducing the amount of soil, dirt, sand, salt, grit and other abrasive and soiling substances.



NOTICE:

TO OBTAIN THE MOST UP-TO-DATE VERSIONS OF LG FLOORS PRODUCT SPECIFICATIONS, INSTALLATION AND MAINTENANCE RECOMMENDATIONS AND WARRANTY, PLEASE VISIT:

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