



Specification Data -- RESILIENT TILE FLOORING

GWC Flooring Luxury Vinyl Tile Installation Instructions

In any floor covering installation there are four basic requirements to insure a proper long lasting and attractive floor. These requirements are the same for GWC Flooring Luxury Vinyl Tile (LVT).

1. The Proper Product for the job to be installed
2. Proper Subfloor Preparation
3. Proper Installation
4. Adhesive and Maintenance Products

1. Product Description

Always select the proper product for the job which you plan to install. Do not use a residential product for a commercial installation. GWC Flooring Luxury Vinyl Tile offers you an unparalleled selection of some of the most beautiful and practical flooring available anywhere. They combine the two most desirable attributes a floor can exhibit; beauty and durability. GWC LVT is a floor that's incredibly long lasting and attractive. But there is one more attribute of GWC Flooring LVT that appeals to most customers: cost. You can install LVT at a surprising savings compared to similar premium resilient vinyl tiles. Beauty, durability and economy; it's a combination that makes specifiers and their customers look smart. Flooring Products are a long term investment. Choose wisely.

The Green Story: GWC Luxury Vinyl is 67% post consumer recycled pvc. Vinyl products that were previously discarded in a landfill are now reclaimed in a proprietary process. Leed points are available for these products.

The Clean Story: GWC Luxury Vinyl Flooring is manufactured to include new germ killing technology designed to make your facility safer from bacteria such as staph and E-coli, and viruses like Rhinovirus and Molds.

Nano- Silver, extremely small particles of metallic silver, is added to GWC Flooring Luxury Vinyl Tile giving a durable, anti-microbial action. Silver particles are microscopic, making them invisible to the human eye.

GWC LVT just quietly goes about making business and environments safer places to be.

2. Installation

Pre Installation Material Storage and Handling:

GWC Flooring LVT should be delivered to the jobsite in the original packaging with labels intact. All flooring material and adhesive should be allowed to acclimate to room conditions for a minimum of 24 hours prior to the beginning of installation. Before installing GWC LVT check all material for correct color, design, size, and that the correct quantity is available to finish the job. Some GWC LVT products may have subtle color and shading variations that are part of the design. For best results remove material from cartons and separate into smaller piles laying flat. To minimize possible shade variations, mix and install tiles from several different cartons. GWC Flooring warrants that GWC LVT products shall be free from visual defects. Do not install GWC Flooring products with apparent defects.



It is recommended that GWC LVT be dry laid before permanent installation.

Tools and Supplies need for Installation:

- 1. Chalk Line and Chalk
- 2. Paper and Pencil
- 3. Tape Measure
- 4. Square
- 5. Steel Ruler or Straight Edge
- 6. Utility Knife and Blades
- 7. Correct Trowel
- 8. Clean Rags
- 9. Clean Water
- 10. Denatured Alcohol or Mineral Spirits
- 11. Low ph Detergent
- 12. Drop Cloth or Protected Paper
- 13. Painters Masking Tape
- 14. 100 Pound Roller

Jobsite Conditions:

Areas to receive GWC LVT must be clean, fully enclosed, well lighted, and weather tight. The permanent HVAC system set at a minimum of 65°F (18°C) and a maximum of 90°F (32°C) for 48 hours prior to, during and after the installation. A minimum temperature of 55°F (13°C) should be maintained thereafter. A relative humidity not greater than 75% for at least 48 hours is required. The installation should not begin until the works of all other trades have been completed, especially overhead trades. GWC LVT can be installed over properly prepared sub-floors of concrete, wood, metal, and other properly prepared sub-floors. GWC LVT is not recommended to be installed in unheated or external locations.

Sub-Floors:

No floor covering installation is better than the sub-floor 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 sub-floor. If the existing floor must be removed make sure all procedures and precautions are followed. It is essential that all sub-floors be rigid, finished smooth, flat, level, permanently dry, clean and free of all foreign materials such as dust, paint, grease, oils, solvents, curing and parting compounds, sealers, and old adhesives residue. These should be removed by scraping, sanding, grinding, or shot blasting. Do not use adhesive removers or solvents. Wear proper protection and follow procedure if sanding, grinding, or shot blasting. **Warning!! Some older floors may contain asbestos and Silica. Refer to current Resilient Flooring Institute guideline for removal instructions of both existing flooring and adhesive.** Cutback or Asphalt Emulsion Adhesives should be removed from concrete sub-floors. This is nearly impossible, so wet scrape the adhesive from the concrete and cover with a minimum of 1/8 inch of trowel able or self-leveling cementitious underlayment. All sub-floor/underlayment patching must be done with a good non shrinking water resistant Portland Cement patching compound or leveler. The sub-floor must be free of movement, excessive moisture and high alkalinity presence. If the surface of any sub-floor shows any evidence of contamination, perform a bond test. Select a small section of the sub-floor and adhere a piece of GWC LVT using the recommended adhesive that will be used for this sub-floor and material. Remove the test sample after 72 hours. If sufficient force is needed to remove the sample you can consider the sub-floor and the adhesive is suitable for installation. The responsibility for determining the suitability of the sub-floor rests solely with the flooring installer.



Wood Sub-Floors:

Wood floors should be double construction with a minimum thickness of 1". The floor must be rigid, free from movement and have a least 18" of well-ventilated air space below on suspended floors. If a new wood sub-floor is to be installed the panels to be used should be specifically designed for this purpose and should be no less than ¼ inch thick. Particle board, tempered hardboard, and gypsum-based are not suitable to be installed over. Always install underlayment panels following manufacturer's recommendations. The underlayment must be smooth, and free from any substance that could cause staining. Patch and level any nail, screw holes, and joints using either a gypsum or cementitious patching compound. Roughness or unevenness of the sub-floor may telegraph through the new LVT which could result in an unsightly looking surface and could cause excessive wear in the higher spots

Concrete Floors:

Concrete shall have a minimum compressive strength of 3000psi. Imperfections such as chips, spalls and cracks should be repaired using only Portland base patching and leveling compound. Do not use gypsum based products. Concrete should be free of all paint, old adhesives, curing, hardening and parting compounds. Use a mechanical method, such as shot blasting or scarifying, to remove surface contaminants.

Expansion joints in the concrete are designed to allow for the expansion and contraction of the concrete. They should not be filled with patching compound and the LVT should not be laid completely over them. GWC Flooring recommends the use of joint covers designed for use with resilient flooring. The concrete must be cured, dry and maintained at a constant temperature prior to the installation of GWC LVT.

Compounds that have been added to the concrete mix or applied to the surface of a new concrete slab may interfere with a complete bond to the GWC LVT. If any of these compounds remain on the surface they must be removed by mechanical methods. To determine if a concrete floor is porous or non-porous place a small puddle of water directly on the sub-floor about 1 inch in diameter. If the water is not absorbed into the concrete within 60 to 90 seconds, then the sub-floor

Radiant Heating Systems:

GWC LVT may be installed over Radiant Heating Systems. These systems should be shut off for a minimum of 48 hours before during and after installation. Use alternative heating if necessary to maintain a stable room temperature. When starting the heating system after 48 hours, raise the temperature no more than 5° per day until you reach the desired temperature. The flooring surface should not go above 80°F (27°C) or below 55°F (13°C). Make sure the correct adhesive is used for this type of installation.

Moisture Test:

It is essential that moisture tests be conducted on all floors regardless of the age or grade level. On concrete use the Calcium Chloride Moisture Emission Test. Test must be conducted in accordance with ASTM-F1869. The moisture emission results must not exceed 5.0 pounds per 1,000 square feet per 24 hours. If the moisture emissions exceed 5.0 pounds, the installation should not proceed until the problem has been corrected. Relative humidity should not exceed 75%.

When testing floor for alkalinity ASTM F710 it must be 7.0 to 10.0 PH to be acceptable. By mopping on a vinegar/water solution of 1 pint of vinegar to 2 gallons of water can sometimes reduce a higher PH.

Wood subfloors and underlayment should be tested for moisture using an acceptable Pin Meter. Between wood sub-floor and underlayment panels readings should be within 3% and have a maximum moisture content of 14% or less. In basements or crawlspaces, moisture control is required to maintain successful installation.

Patching and Leveling Compounds:

All cracks, indentions or depressions, or other non-moving joints should be filled and smooth with a Portland base patching and leveling compound. Do not install GWC LVT over gypsum-based patching or leveling compounds. All patching and leveling compounds should be moisture, alkali, and mildew resistant and hold a minimum compression of 3,000 PSI according to ASTM C109. After all sub-floors have been properly patched and leveled, final clean up should be done.

Make sure all adjacent work areas and finish floors are protected, and prevent other trades from disturbing the area to be installed. It is now time to install the floor.

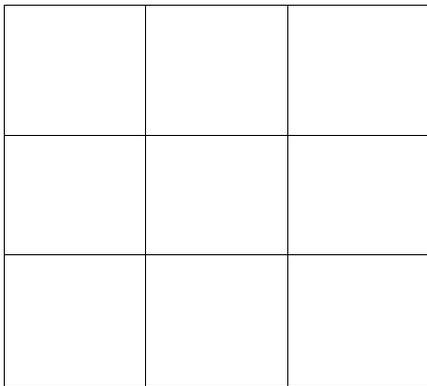
3. Layout and Design:

GWC Flooring LVT comes in Square, Rectangle Tile, and random width and length Planks, with several finishes and embossing. Always determine the best starting point for your tile installation. Always try not to end with less than 6 inches from wall on tile and 6 to 12 inches on plank for best appearance.

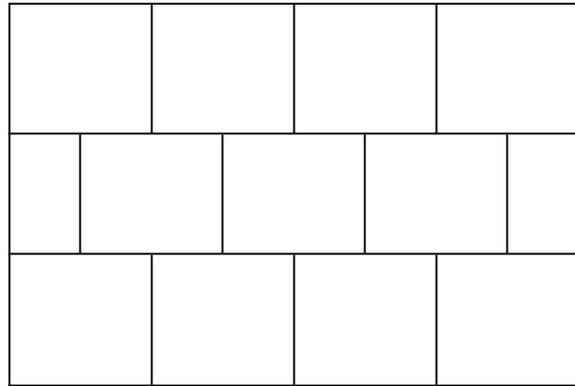
Square LVT Tile:

Square tile may be installed corner to corner or in an offset landscape pattern as shown in diagram below. Always try and balance the appearance of this installation by installing approximately the same size finish tile on each side of the room. Avoid installing a tile less than 6 inches in length.

Corner to Corner



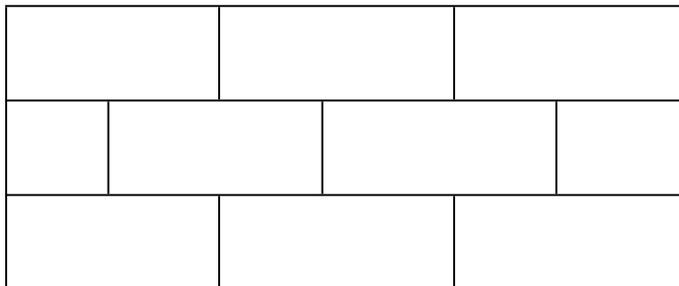
Offset Landscape



Rectangle LVT Tile:

Rectangle LVT Tile should be installed in an offset landscape pattern. This helps to reduce the sight lines of installation across the tile as shown in diagram below. Always try to balance the appearance of this installation by installing approximately the same size finish tile on each side of the room. Avoid installing a tile less than 6 inches in length.

Offset Landscape

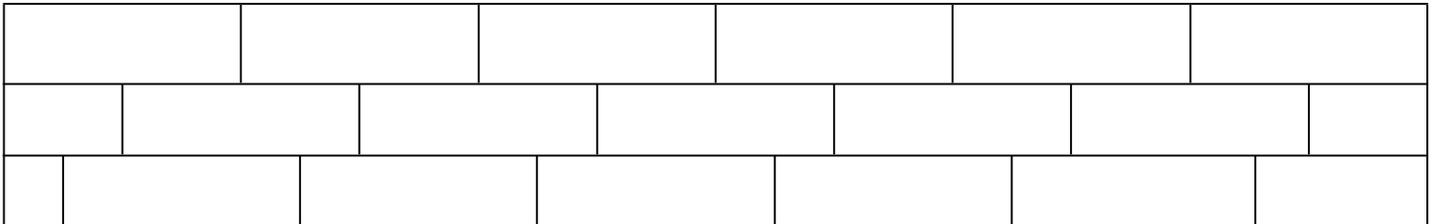




Plank LVT Tile:

Plank LVT Tile should be installed by offsetting end joints of each tile at least 6 inches as you place them side by side. This will help avoid the end joints from lining up. As planks are laid end-to-end, if the last plank is longer than needed, mark and cut the plank installing the cut end next to the wall. The remainder of the plank which has been cut off can be used to start the next row as long as it is 6 inches or longer. If the last plank in the row is a full plank start the next row by cutting a plank at least 6 to 12 inches long and install with cut edge against the wall. Place each plank tight, against the adjoining plank and well seated in the adhesive. See diagram below.

Offset Landscape



Each GWC LVT Tile has arrows on the back side and it is recommended that all GWC LVT Tiles be installed with arrows pointing in the same direction. *This is a very good time to inspect each tile.*

4. Adhesive:

All GWC LVT may be installed by using the adhesive listed below. Each installation may be different. The correct adhesive to be used should be determined by the installer before the installation begins. All adhesives should be acclimated on the job site 24 hours prior to installation. Use adhesive designed for the permanent installation of GWC LVT. Adhesives must be plasticizer resistant and develop strong bond strength to limit dimensional movement of GWC LVT.

GWC Flooring GW-312

When installing GWC LVT over porous subs-floors use a 1/16" x 1/16" x 1/16" square notched trowel when using GWC Flooring GW-312 (approx. 150 sq. ft. /gal). Trowel the adhesive onto the sub-floor and allow the adhesive to remain open for approximately 5 – 10 minutes before installing GWC LVT. It is important to watch this carefully and avoid installing LVT after the adhesive has set. The point at which the adhesive is ready to receive LVT varies considerably and is affected by temperature and humidity. The hotter / drier the environment, the faster the adhesive will be ready to receive the LVT. Periodically check to confirm proper adhesive transfer to back.

When installing GWC LVT over non-porous sub-floor use a 1/16" V-notch trowel when using GWC GW-312 (approx. 185 sq. ft. /gal). The adhesive should be allowed to dry to the touch so that there is little or no transfer of adhesive to the finger. Once the adhesive reaches the dry to touch state, it is ready to accept the LVT. From the time the adhesive is allowed to dry to the touch to the time it must be covered is approximately 45 minutes. If the adhesive is allowed to remain uncovered, after initial drying to the touch, for periods longer than the recommended 45 minutes a loss of adhesion may result. **Caution:** Do not allow adhesive to remain uncovered after the initial drying period, as a loss of adhesion strength will occur. Do not spread more adhesive than can be worked within the 45 minute time frame. Wet adhesive can be removed with soap and water. Dried adhesive can be removed with mineral spirits.



GWC Flooring GW-636 Two Part Urethane:

GWC Flooring GW-636 is a two part polyurethane A & B. Pour all of part B into part A. Thoroughly mix with a ½ hp drill motor equipped with a “jiffy mixer” or equivalent. Mix until smooth and uniform in color. When uniform in color, mix for another 3 to 5 minutes. Adhesive will not work properly if not completely mixed.

Pour entire contents of container on sub-floor and spread using a 1/16” square notch trowel. Average yield approximately 150 sq. ft. /gal. Do not allow the adhesive to stand in the can as accelerated curing time will occur. Immediately install the LVT into the wet adhesive. No open time is required with GW-636. Remove wet adhesive with mineral spirits. Dry adhesive cannot be removed without damaging the LVT surface.

GWC Flooring GW-729 Two Part Epoxy:

GWC Flooring GW-729 is a two part epoxy A & B. Mix part A and part B using a rotary motion while at the same time lifting from the bottom. After mixing, the epoxy adhesive should be of uniform color (i.e., no streaking). Immediately pour the mixed contents on the sub-floor and spread with a 1/16” x 1/16” x 1/16” square notch trowel. Average yield approximately 100 sq. ft. /gal. Install GWC LVT into wet adhesive prior to adhesive setting. Remove wet excess adhesive with denatured alcohol. Once GW-729 has dried, it cannot be easily removed.

Post Installation:

GWC LVT should be rolled in both directions with a recommended 100 pound roller within 10 minutes after installation and again 20 to 30 minutes after installation. As soon as possible after installation remove all adhesive on the surface before rolling to avoid spreading the adhesive over the tile. After rolling the tile again remove any excess adhesive that may have transferred through the tile seams. Depending on the adhesive follow manufacture’s direction on removing excess adhesive before it dries, using soap and water or denatured alcohol or mineral spirits.

Wait 24 hours after installation before resuming normal traffic and 48 hours before heavy rolling traffic. Wait 5 days before heavy washing of or applying a dressing to the new GWC LVT flooring after installation.

Follow maintenance procedures recommended by GWC Flooring for Luxury Vinyl Tile and enjoy your new floor.