



Diamond W
A Tarkett Company

THE ULTIMATE
FLOORING EXPERIENCE

FORTRESS Luxury Tile & Plank by Windsor Import Flooring LVT Installation Instructions ... REVISED August 15, 2017

Acclimating Diamond W FORTRESS Luxury Tile and Plank

The floor where Diamond W FORTRESS by Windsor Import Flooring LVT products (the Product) is installed must be in an area with a controlled temperature and humidity environment. The heating and air conditioning systems must be on and working at least one week prior to installation of the Product to condition the subfloor before installing. The heating and air conditioning system must be kept on during and after the Product is installed. The temperature and humidity best suited for installation of the Product are normal use conditions of between 65-85 degrees F with a relative humidity no greater than 65%. Before installation starts, the substrate, flooring, and adhesive must be fully acclimated to these conditions for at least 48 hours prior to installing the Product. For best results during acclimation, do not set the Product cartons more than 6 cartons high or closer than 6 inches apart. The cartons should be away from direct sunlight and not near cooling and heating ducts so that they do not shrink or expand excessively after the floor installation is completed.

Moisture Requirements

For concrete floors, it is the responsibility of the installer to test all concrete substrates for moisture content to make sure that the concrete is sufficiently dry to install Diamond W FORTRESS by Windsor Import Flooring LVT. This includes both old and new concrete floors. New concrete slabs must cure in well-ventilated conditions for at least 90 days minimum before testing for moisture and alkali or installing a resilient floor. Concrete slabs should be tested for moisture according to ASTM F 1869-98 (Calcium Chloride Moisture Test). Using this test, moisture levels should never be above 5lbs per 1000 square feet per 24 hours. If ASTM F 2170-2 (standard test for determining Relative Humidity in Concrete Slabs using in situ Probes), measured relative humidity levels should not be above 75%. In either case, never install the Product when the concrete shows surface or subfloor moisture being present as excessive moisture will cause the installation to fail. (See section on page 4 about moisture allowance when using DriTac 5900 MegaBond adhesive.)

pH Level Requirements

Tests should be done on concrete subfloors to determine pH levels before installing Diamond W FORTRESS by Windsor Import Flooring LVT. Subfloors with pH levels of 9 or above are not acceptable for installing the Product. The pH of the subfloor must be adjusted to neutral before the Product is installed.

Diamond W / Windsor Import Flooring LVT does not warrant or guarantee unsuccessful installations with issues caused by excessive alkali, moisture, or hydrostatic pressure present in subfloors.

Subfloor Requirements

All subfloors should be inspected to determine their condition prior to installation of Diamond W FORTRESS by Windsor Import Flooring LVT. All subfloors must be smooth, clean, dry, and structurally sound. The subfloor must be free of dust, dirt, oil, paint, varnish, wax, grease, solvent, existing adhesives, or any other material that would inhibit the adhesive bond between the Product and the subfloor. If oil, grease, or other contaminants have penetrated the concrete to a point where they cannot be thoroughly removed, the Product cannot be installed. Never install FORTRESS Luxury Tile and Planks over residual asphalt-type cut back adhesives as they can bleed through and stain the vinyl. The use of solvent-based adhesive removers and solvent-based construction adhesives is not recommended. They are known to stain vinyl floor coverings. If citrus-based

cleaners are used on the subfloor before installation, the subfloor must be thoroughly rinsed and dried before installation begins. All responsibility for discoloration or staining problems caused by the use of improper construction adhesives belongs to the underlayment installer. Irregularities in smoothness or cracks in the concrete can be filled or patched using a quality, non-shrinking, water resistant, Portland-cement filler compound that can then be sanded smooth. Irregularities will show from the subfloor into the Product if the subfloor is not smooth before installation. In general, the subfloor surface should be level to within 3/16 inch over a 10 foot span.

Concrete subfloors must be neutral pH (no high alkalinity) and free of moisture before installation of the Product. The installer is responsible for performing these tests. A concrete slab must be cured for a minimum of 90 days before testing for moisture and pH. If moisture levels are higher than recommended above, additional drying time may be required before installation of the Product due to local environmental conditions. Do not install vinyl flooring over plywood that is directly over a concrete slab or a sleeper-type subfloor.

A porosity test should be run on the concrete subfloor to determine the type of adhesive that should be used for the installation. Using a small amount of water, sprinkle some water in multiple locations on the concrete floor. If the water soaks into the subfloor, it is porous. If the water beads up on the subfloor surface, it is non-porous. Consult adhesive manufacturers for the proper type of compatible vinyl adhesive to use on the porous or non-porous subfloor based on the results of this test.

Gypsum-based concretes will require that the subfloor be properly sealed using a sealant supplied by the gypsum-based concrete manufacturer. If a gypsum or other form of lightweight underlayment is used, it must be sealed with an acrylic based primer-sealer coat before adhesive is applied, as specified by the underlayment manufacturer.

Tile subfloors should be skim-coated to cover grout lines with an embossing floor leveler. Voids and dips in the subfloor should be filled with cementitious leveling compounds to level the subfloor.

All wood subfloors should be standard double-layer construction with a finished thickness of at least 1". Use only APA underlayment grade plywood without voids and a fully sanded face. The plywood subfloor should have at least 18" of well-ventilated air space underneath it. Crawl spaces should be insulated and the ground surface of the crawl space should be protected by 6-mil polyethylene vapor barrier sheeting to reduce moisture vapor transmission. Fill underlayment seams, nail holes, and irregularities with a quality Portland-cement type floor patch, sand it smooth upon drying, and make sure that all dust is completely removed to ensure that the adhesive can bond strongly to the subfloor. Use only non-staining fasteners with underlayment panels as some types of fasteners such as common steel nails, cement-coated or resin-coated nails may cause discoloration in the vinyl. All responsibility for discoloration problems caused by fastener staining belongs to the underlayment installer.

Non-approved Subfloors

Non-approved subfloors include, but are not limited to:

Particleboard

Chipboard

Oriented strand board (OSB)

Strip wood floors

Masonite

Self-stick tile

Rubber Tile

Fire retardant or preservative treated plywood

Hardboard

Knotty plywood

Treated plywood

Waferboard

Glass mesh tile board

Asphalt tile

Cementitious tile backer board

Any unsatisfactory performance or appearance related issues associated with the subfloor or underlayment are the responsibility of the installer and/or the underlayment manufacturer. Installation failures due to any subfloor requirements not being met as detailed in these instructions are not the responsibility of Diamond W Flooring and Windsor Import Flooring LVT Product warranties will not apply.

WARNING: Floors that already have resilient floor coverings installed may contain asbestos. If you do not know, the installer must assume that the floor and its components may contain asbestos. Their removal could cause the release of asbestos fibers into the air. Inhaled asbestos fibers can cause serious bodily harm, respiratory damage and can lead to cancer. Various Federal, State, and Local agencies have developed regulations addressing the removal of “in-place” asbestos-containing materials. If you want to remove the in-place floor, you must review and comply with all regulations and procedures that apply. Do not sand, dry scrape, drill, saw, or blast these materials as they may contain asbestos or crystalline silica dust. The Resilient Floor Covering Institute (www.rfci.com) has developed a set of recommended work practices that should be consulted before the in-place floor is removed. These work instructions are available in an RFCI pamphlet entitled “Recommended Work Practices for the Removal of Resilient Floor Coverings.”

RADIANT HEATED FLOORS:

This glue down LVT floor can be installed over certain types of radiant heated floors. Follow the manufacturer's installation instructions when full spreading with an approved glue.

When installing over a radiant heated floor:

1. A newly installed radiant heated floor must be operational for at least four (4) weeks prior to LVT installation with the temperature set between 55 to 85 degrees F to insure that the subfloor has been dried.
2. Existing radiant heated floors should be set to a minimum temperature of 65°F (18.3°C) degrees F for a minimum of 4 days before, during and 48 hours after the completion of the installation. This will insure that the LVT will acclimate properly before the installation begins. Upon completion of the installation, gradually increase temperature in increments of 5° F per hour until desired temperature is achieved. Never exceed 85 degrees.
3. Wood subfloors should never exceed 10% moisture content as measured by a calibrated wood moisture meter.
4. Concrete subfloors must be “dry” using the mat test, a calibrated concrete moisture meter, Calcium Chloride Test or a RH Probe.
5. Ground floors using the radiant heating system should have a proper moisture barrier beneath it.
6. The recommended range of relative humidity is 35%-55% and the room temperature should be between 55-85 degrees F for the delivery of the flooring, acclimation, and installation.
7. The LVT must acclimate at the stated temperature range for at least 48 hours prior to installation in the room to be installed.
8. Keeping the temperature of the room constant will keep a stable environment for the flooring as well as the home.
9. The floor surface temperature must always stay below 85 degrees F.
10. At no time should the relative humidity in the room with the installed flooring fall below 30% during the life of the product.

NOTE: Electrically heated radiant mats not embedded in the subfloor and installed directly under this LVT are not recommended for use beneath this product. The installation of electrically heated radiant floor heating mats could void the warranty of the installed floor in case of a heating system failure.

Bond test

A bond test should be run to determine if an adhesive is compatible with any subfloor or if a porous or non-porous adhesive application method is required. Using the flooring and an adhesive selected as suitable for the type of subfloor and flooring, and following the recommended installation instructions for the Product, install a 2 foot x 2 foot flooring section next to a wall or another light traffic area. Using duct tape, tape the perimeter of the test area to prevent the adhesive from drying on the edges. After 48 hours, the adhesive should be dry and the flooring should be difficult to remove. If the flooring is not adhered well to the subfloor, a change in adhesive is recommended. The adhesive is only dry at this point and not fully cured. Full curing to achieve maximum bond takes from 6-8 days to occur. For large flooring installations, bond tests should be run every 50 feet. The time required to run this test is much less costly than replacing a failed flooring installation.

Note: All warranties and guarantees pertaining to the suitability and performance of any product not recommended by Diamond W Flooring and Windsor Import Flooring LVT are the responsibility of the material manufacturer or the installer/contractor and not the responsibility of Diamond W Flooring and Windsor Import Flooring LVT.

Adhesive Recommendation

Diamond W Flooring recommends DriTac 5900 MegaBond pressure sensitive adhesive for the installation of FORTRESS Luxury Tile & Plank. Refer to the DriTac 5900 Installation Instructions for correct application directions.

SPECIAL WARRANTIES FOR DriTac 5900 MegaBond

Use 5900 MegaBond ONLY ... Moisture warranty 8 lb ... 90% RH
Use 5900 MegaBond with DriTac Eco DriBloc (single coat) 15 lb ... 95% RH
Use 5900 MegaBond with DriTac MCS7000 25 lb ... 100% RH
(Follow DriTac directions on Spec Sheets & Installation Sheets)

Installing Diamond W Flooring FORTRESS Tiles and Planks

The planks and tiles in a box may show variation of color. It is recommended that the installation should work out of multiple Product boxes at a time. The planks from multiple boxes should be mixed on the floor like real wood before installing. This will ensure that your floor will show the beautiful natural variation that has been designed into this product when it is installed properly. Diamond W Flooring and Windsor Import Flooring LVT does not warrant that different production runs of Product will have exact color matches.

If Diamond W FORTRESS Flooring by Windsor Import Flooring LVT products are combined in a single installation, the products installed must have the same thickness and edge treatment to be compatible. Carefully inspect each tile and plank for visual defects before installing. Do not install tiles and planks that have visual defects, damage, or severe color variations.

Tile and Plank Installation

Tile should be installed from the center of a room. Each end wall should be measured to find its center and marked at that point. These center point markings should be connected across the room with a chalk line. Find the center point of the chalk line and mark another chalk line at a right angle to the existing chalk line to define the room center.

Place the first tile at the crossing point of the chalk lines. Lay the next tile tightly next to first one, carefully following the chalk lines. Work from the center of the room toward the walls. Make sure that the tiles are well

seated into the adhesive. Do not apply more adhesive than can be worked. Once applied, all flooring must be rolled with a minimum 100 lb roller in both directions after installation. A hand roller will be needed in areas that cannot be reached by the 100-lb roller.

When installing planks, position the first plank at the junction of the chalk lines. Lay the next plank flush against the chalk line and tight against the first plank. Be sure that the planks are well seated into the adhesive. Continue laying planks either row by row or in a pyramid fashion, making sure to randomly stagger the plank end joints in the next row laid.

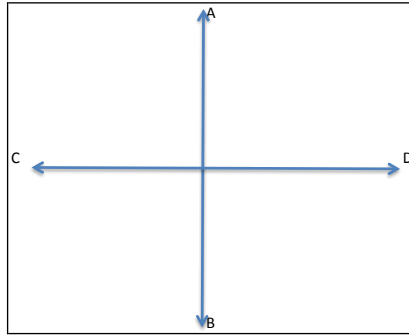


Figure 1. Find center point of the room with chalk lines to guide tile installation

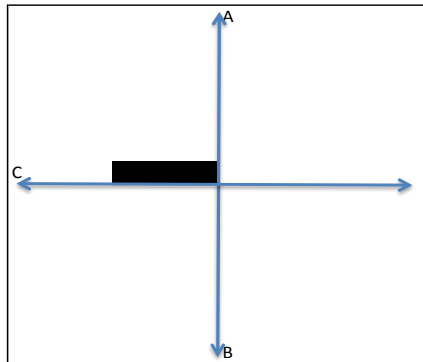


Figure 2. Install first plank at junction of the chalk lines.

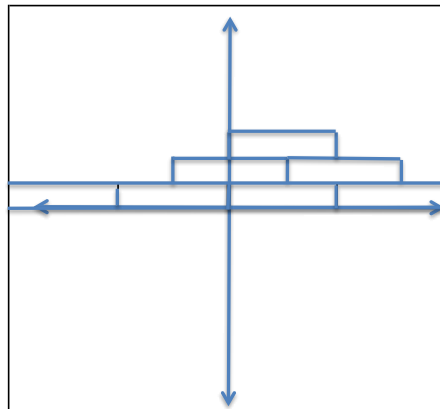


Figure 3. Lay planks flush against the chalk line and tight against the adjoining plank. Make sure that the planks are well seated into the adhesive and continue laying either pyramid fashion (as shown) or row by row.