Valera RXT Vinyl Tile Technical Manual

Installation · Maintenance · Warranty

Manufactured in the U.S.A.

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Supersedes all previous versions
Check website for updates

Installation

Maintenance

Installation

I. JOB SITE CONDITIONS

1. Installation should not begin until after all other trades are finished in the area. If the job requires other trades to work in the area after the installation of the floor, the floor should be protected with an appropriate cover.
2. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65°F (18°C) for 48 hours before, during, and after the installation.

II. SUBFLOORS

1. Permitted subfloors include concrete, Portland-based patching and leveling materials, and wood.

NOTE: Gypsum-based patching and leveling compounds are not acceptable.

NOTE: The selected Portland-based patching and self-leveling materials must be moisture resistant and rated to withstand the RH moisture levels on the project.

2. Wood Subfloors – Wood subfloors should be double constructed, rigid, and free from movement with a minimum of 18 inches of well-ventilated air space below.
3. Underlayments – The preferred underlayment panel is American Plywood Association (APA) underlayment grade plywood, minimum thickness of 1/4-inch, with a fully sanded face.

NOTE: Particleboard, chipboard/OSB, Masonite and lauan are not considered to be suitable underlayments.

4. Concrete Floors – Concrete shall have a minimum compressive strength of 3000 psi. New concrete slabs should cure for a minimum of 28 days before installation, be fully cured and permanently dry.
5. Radiant Heat – Valera RXT is not suitable over radiant heat.
6. Hot yoga – Valera RXT is not suitable for hot yoga

III. SUBFLOOR REQUIREMENTS AND PREPARATION

1. Subfloors shall be dry, clean, smooth, level, and structurally sound. They should be free of dust, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive residue, and other extraneous materials, according to ASTM F710.
2. Subfloors should be smooth to prevent irregularities, roughness, or other defects from telegraphing through the new flooring. The surface should be flat to the equivalent of 3/16 in (4.8 mm) in 10 ft (3.0 m).
3. Mechanically remove all traces of old adhesives, paint, or other debris by scraping, sanding, or scarifying the substrate. Do not use solvents. All high spots shall be ground level and low spots filled with a Portland-based patching compound.
4. All saw cuts (control joints), cracks, indentations, and other non-moving joints in the concrete must be filled with a Portland-based patching compound.
5. Expansion joints in the concrete are designed to allow for expansion and contraction of the concrete. If a floor covering is installed over an expansion joint, it will likely fail in that area. Use expansion joint covers designed for resilient flooring.
6. Always allow patching materials to dry thoroughly and install according to the manufacturer's instructions. Excessive moisture in patching material may cause bonding problems or a bubbling reaction with the adhesive.

HAZARDS:

SILICA WARNING – Concrete, floor patching compounds, toppings, and leveling compounds can contain free crystalline silica. Cutting, sawing, grinding, or drilling can produce respirable crystalline silica (particles 1-10 micrometers). Classified by OSHA as an IA carcinogen, respirable silica is known to cause silicosis and other respiratory diseases. Avoid actions that may cause dust to become airborne. Use local or general ventilation or provide protective equipment to reduce exposure to below the applicable exposure limits.

ASBESTOS WARNING – Resilient flooring, backing, lining felt, paint, or asphaltic "cutback" adhesives can contain asbestos fibers. Avoid actions that cause dust to become airborne. Do not sand, dry sweep, dry scrape, drill, saw, bead blast, or mechanically chip or pulverize. Regulations may require that the material be tested to determine the asbestos content. Consult the document "Recommended Work Practices for Removal of Existing Resilient Floor Coverings" available from the Resilient Floor Covering Institute.

LEAD WARNING – Certain paints can contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state, and local laws and the publication "Lead Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing" available from the United States Department of Housing and Urban Development.

7. ECOsurfaces recommends using either our PS-99 or our ES-90 adhesive. Moisture must be measured using the RH Relative Humidity test method per the ASTM F2170 test standard. Moisture content should not exceed the allowable limit of the selected ECOsurfaces adhesive.

   a. ES-90 – RH limit of 90%

   b. PS-99 – RH limit of 99%

   If RH levels exceed the limit of the selected adhesive, stop and correct the situation.

8. When a moisture mitigation system is required, it must conform to the ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.
9. Perform pH tests on all concrete floors per ASTM F3441 Testing Concrete pH for Resilient Flooring. If greater than the allowable limit of the selected ECOsurfaces adhesive, neutralize prior to installation.
10. Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3´ x 3´ test pieces of the flooring with the recommended adhesive and trowel. Allow to set for 72 hours before attempting to remove. A sufficient amount of force should be required to remove the flooring and, when removed, there should be adhesive residue on the subfloor and on the back of the test pieces.

IV. MATERIAL STORAGE AND HANDLING

1. Material should be delivered to the job site in its original, unopened packaging with all labels intact.
2. Material must be stored inside in a climate-controlled environment not to exceed 85°F (30°C)
3. The material and adhesive must be acclimated at room temperature for a minimum of 48 hours before starting installation.
4. Store cartons of tile flat and squarely on top of one another, allowing for air flow around stacks when un-palletized. Locate material away from vents, direct sunlight, etc. Storing cartons in direct sunlight may prevent proper acclimation by inducing thermal expansion/contraction.
5. When palletizing on a jobsite, a 5/8" or thicker plywood must be first placed on the pallet to protect the cartons and material.
6. Do not stack pallets!

7. **Inspect <u>all materials for visual defects</u> before beginning installation. <u>No labor claim will be honored on material installed with visual defects</u>. Verify material delivered is the correct style, color, and amount. Any discrepancies must be reported immediately before beginning installation.**

V. Typical Installation (using PS-99 adhesive)

<u>NOTE: For Cardio Area Installation requirements and definition, see "Cardio Area Installation" section below.</u>

1. Assume that the walls you are butting against are not straight or square. Using a chalk line, make a starting point for a row of tiles to follow. The chalk line should be set where the first seam will be located.
2. Mix the tiles from 5 or 6 cartons as you install.
3. The Valera RXT is non-directional.
4. Align the first row of tiles to the chalk line. The minimum usable salvage length is 6".

NOTE: Do not sharply fold or crease the material. This can result in permanent visual damage to the PUR wear layer which is not covered under ECOsurfaces' product warranty.

NOTE: It is very important that the first row of planks is perfectly straight.

NOTE: Always have a factory edge, seam to seam. Position all <u>cut</u> tile ends <u>against a wall, etc.</u>

A. Adhesive Application (PS-99)

1. Begin the application of the PS-99 using a 1/16˝ square- notched trowel.
2. PS-99 **should not be mixed;** it is specially formulated for use right out of the pail.
3. Spread the adhesive and wait for it **<u>to reach a full flash</u>**. Failure to allow adhesive to reach a full flash will result in a failed installation. When fully flashed, the adhesive will be tacky, will not transfer to your finger when touched, and ridges will be white to transparent. Take care not to spread more PS-99 than can be covered with planks before the working time ends.

Installation Type	Flash Time	Working time [1]
Pressure Sensitive Installations 1/16" square notch trowel	***<u>As required to reach Full Flash</u> Do not start checking until 2 hours after application***	Up to 4 hours

[1] Working time is the maximum amount of time that an adhesive can remain exposed to the airand still effectively bond to the floor covering.

NOTE: Flash time and working time vary based on temperature, humidity, substrate porosity, trowel size, and jobsite conditions.

NOTE: DO NOT add fans, etc.

NOTE: Applications over plywood may experience reduced flash and working times.

NOTE: Do not allow PS-99 to cure on your hands or the flooring. Immediately wipe off excess adhesive with water! Cured adhesive is very difficult to remove from hands, and we strongly suggest wearing gloves!

B. Installation of planks into PS-99

1. Lay the planks into the flashed adhesive, **applying hand pressure along the ***<u>entire</u>* plank as it is being laid into the adhesive to ensure the ***<u>entire</u>* plank has adhesive contact**. Do not drop or allow the material to "flop" into place; this may cause air entrapment and bubbles beneath the flooring.

NOTE: Never leave adhesive ridges or puddles that can telegraph through the material.

2. Roll the floor with a 100 lb. roller to ensure proper adhesive transfer. Overlap each pass of the roller by 50% of the previous pass to ensure the floor is properly rolled. Roll the width first and then the length.
3. Roll again within the first 60 minutes.

NOTE: It is imperative to roll the floor frequently during installation and again within the first 60 minutes to ensure that the tiles continue to lay flat.

4. Repeat for planks installed that day.
5. Keep traffic off the floor for a minimum of 24 hours. Floor should be free from light rolling loads for a minimum of 72 hours.

NOTE: Chair mats are recommended. The absence of chair mats is considered abuse.

VI. *Cardio Area Installation* (using ES-90 adhesive)

- **Including treadmill, elliptical, selectorized, rowing, or any equipment exerting horizontal or rolling forces or loads.**
- **Including areas adjacent to exterior entry / exit points**

NOTE: Installation of the above cardio equipment / exterior entry / exit points as defined above requires the use of ES-90 adhesive.

NOTE: ECOsurfaces recommends that all selectorized equipment be secured to the substrate to prevent subsequent and unwarranted damage to the floor from movement of said equipment.

NOTE: Do not sharply fold or crease the material. This can result in permanent visual damage to the PUR wear layer and not covered under warranty.

NOTE: It is very important that the first row of planks is perfectly straight.

A. Establishing first row of planks

1. Assume that the walls you are butting against are not straight or square. Using a chalk line, make a starting point for a row of tiles to follow. The chalk line should be set where the first seam will be located.
2. Mix the tiles from 5 or 6 cartons as you install.
3. The Valera RXT is non-directional.
4. Align the first row of tiles to the chalk line. The minimum usable salvage length is 6”.

NOTE: Always position factory edge to factory edge, and all cut tile edges against a wall, etc.

B. Adhesive Application (ES-90)

NOTE: Do not allow ES-90 adhesive to cure on your hands or the flooring. Immediately wipe off excess adhesive with denatured alcohol! Cured adhesive is very difficult to remove from hands, and we strongly suggest wearing gloves!

1. Moisture must be measured using the RH Relative Humidity test method per the ASTM F2170 test standard. Moisture content should not exceed 90% RH allowable limit of the ES-90 adhesive.

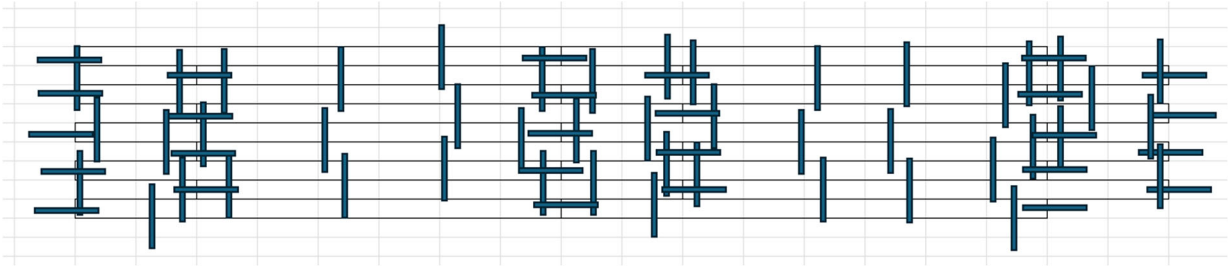
   If RH levels exceed the 90% RH limit, stop and correct situation.

2. In the event that a moisture mitigation system is required, it must conform to the ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.
3. Perform pH tests on all concrete floors per ASTM F3441 Testing Concrete pH for Resilient Flooring. If greater than the allowable limit of the selected ECOsurfaces adhesive, neutralize prior to installation.
4. Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3´ x 3´ test pieces of the flooring with the recommended adhesive and trowel. Allow to set for 72 hours before attempting to remove. A sufficient amount of force should be required to remove the flooring and, when removed, there should be adhesive residue on the subfloor and on the back of the test pieces.
5. After performing the above procedures, begin the application of the selected ECOsurfaces adhesive. ECOsurfaces adhesives should not be mixed and are specially formulated for use right out of the pail. Apply to the substrate using a 1/16˝ square- notched trowel.
6. Spread adhesive, taking care not to spread more ES-90 than can be covered by flooring and rolled within 30 minutes. The open time of the adhesive is 30 - 40 minutes at 70º F and 50% relative humidity.

NOTE: The open time of adhesive is affected by temperature and humidity. High temperatures and high humidity will cause the adhesive to set quickly. Low temperatures and low humidity will cause adhesive to cure at a slower rate. The installer should monitor on-site conditions and adjust open time accordingly.

C. Installation of planks into ES-90 adhesive

1. Lay the planks into the wet adhesive. Do not allow the planks to “flop” into place; this may cause air entrapment and bubbles under the planks.
2. Tape the planks. The diagram below is more suggestive than prescriptive but requires that painter’s tape be applied across 3 or more planks and also across the plank ends, plank to plank.



3. Roll the floor with a 100 lb. roller to ensure proper adhesive transfer. Overlap each pass of the roller by 50% of the previous pass to ensure the floor is properly rolled. Roll the planks as installed, and then again every 1/2 hour for 2 hours.
4. Clean off any excess adhesive with denatured alcohol.

NOTE: Do not allow ES-90 adhesive to cure on your hands or the flooring. Immediately wipe off excess adhesive with denatured alcohol! Cured adhesive is very difficult to remove from hands, and we strongly suggest wearing gloves!

5. Apply weight as required to keep the planks flat until the adhesive cures.
6. Repeat for planks to be installed that day.
7. Keep all foot traffic off the floor for a minimum of 24 hours, heavy loads for 48 hrs. and free from rolling loads for a minimum of 72 hours or risk causing permanent indentations or debonding in the uncured adhesive.

Maintenance and Assigned Responsibilities

It is the Specifier's responsibility to:

- Mandate covering and protection of floor from damage and construction debris until construction is complete.
- Assign to the appropriate party responsibility for the initial cleaning of floor following published procedures.

ECOsurfaces recommends our environmentally friendly line of maintenance products, including E-Cleaner.

It is the General Contractor's responsibility to provide:

- A building or installation area that is fully enclosed from the elements, e.g., finished roof, windows, doors, etc.
- Temperature that is climate controlled with a minimum uniform temperature of 65° F for 48 hours prior to, during, and after the flooring installation, for acclimation of flooring materials.
- Protection for those areas of the flooring that are subject to direct sunlight through doors or windows by having the doors or windows covered for such time until the installation of the material is complete.
- Protection for flooring from damage and construction debris by using an appropriate floor covering until such time that the recommended initial cleaning may be performed.

Cleaning Procedures

INITIAL CONSTRUCTION CLEANING

1. Wait a minimum of 24-48 hours before conducting the initial cleaning.
2. Remove all loose debris, dust, and grit by sweeping and vacuuming.
3. Ensure that all traces of adhesive are removed from the surface of floor using a clean white cloth dampened with mineral spirits or denatured alcohol.

NOTE: DO NOT FLOOD FLOOR or risk warranty exclusion.

4. Damp mop with a microfiber mop using neutral pH E-Cleaner diluted to 10 oz. E-Cleaner per gallon cool water.

ROUTINE MAINTENANCE

NOTE: Use entryway systems/ non-staining walk off mats to reduce dirt, sand, grit, etc. from being tracked onto the floor, to protect the floor and in turn, reduce maintenance.

1. Mop, sweep or vacuum to remove dust and loose dirt.
2. If required, spot mop to remove stubborn marks with E-Cleaner diluted to 3 oz. E-Cleaner per gallon cool water.

NOTE: DO NOT FLOOD FLOOR or risk warranty exclusion.

5. Damp mop with a microfiber mop using E-Cleaner diluted to 3 oz. E-Cleaner per gallon cool water.
6. Allow to dry.

NOTE: DO NOT FLOOD FLOOR or risk warranty exclusion.

NOTE: The maintenance regime requires the installation of an effective barrier matting system.

NOTE: Fit protective feet to all furniture/ fixtures to prevent marking / scratching / damage.

NOTE: Rubber feet or rubber mats may cause permanent staining to vinyl surfaces. ECOsurfaces does not recommend equipment with rubber feet or the use of rubber-backed mats on vinyl floors.

NOTE: Chair mats are recommended. The absence of chair mats is considered abuse.

REGULAR CLEANING IS MORE BENEFICIAL AND COST-EFFECTIVE THAN OCCASIONAL HEAVY CLEANING.

Step	Green Products	Dilution	Diluted Coverage	Pads & Brushes
Initial Cleaning	E-Cleaner	10 oz / gal water	2,000 sq. ft /gal	Microfiber mop **DO NOT FLOOD FLOOR**
Routine Cleaning	E-Cleaner	3 oz / gal water	6,000 sq. ft /gal	Microfiber mop **DO NOT FLOOD FLOOR**

Warranty

ECOsurfaces guarantees our Valera RXT Vinyl Tiles to be free from defects in workmanship and materials affecting wearing properties, and to meet all published Valera RXT specifications at time of manufacturing, provided that the product has been installed in accordance with the installation instructions issued by us. These warranties only apply to the original purchaser.

Please see the ECOsurfaces Warranty Guide for length specifics.

Any defect must be notified to us in writing, and we reserve the right to inspect and investigate any alleged defect. If after this investigation we consider the material to be defective, at the discretion of ECOsurfaces, the sole remedy against the seller will be to repair, to replace, or to issue a credit not exceeding the selling price of the defective goods. If product is no longer available, ECOsurfaces reserves the right to substitute similar product of equal value and/or quality.

This warranty does not cover defects arising from any of the following:

1. Excessive Moisture
2. Chemical Reaction
3. Corrosion
4. Extremes in temperature
5. Abnormal usage above which the product is specified.
6. Wear from chairs or other furniture without proper floor protection and / or chair mats.
7. Indentations, scratches, or surface damage caused by improper maintenance, misuse, negligence, spike heeled shoes, cleats, spikes, or pebbles, sand, or other abrasive materials.
8. Sub-floor irregularities causing premature wear.
9. Problems caused by uses, maintenance, and installation, including flooding floor, which are contrary to ECOsurfaces specifications, recommendations or instructions.
10. Dissatisfaction due to improper installation and/or maintenance, including flooding floor.
11. Labor on material installed with visual defects.
12. Labor costs on repair or replacement material
13. Any discoloration or bond failure as a result of unapproved adhesives or improper substrate preparation
14. Staining or discoloration caused by rubber feet, rubber castors, rubber-backed mats, etc.
15. Damage resulting from unapproved floor care products.
16. Purchase of “seconds,” “remnants,” or other (non-first quality) flooring materials are not covered under this warranty.

These warranties are in lieu of any other warranty expressed or implied. ECOsurfaces shall not be liable for any incidental or consequential damages which may result from a defect. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. These warranties give you specific rights, and you may also have rights which may vary from state to state. To know what your legal rights are in your state, consult your local or state Consumer Affairs Office or your State Attorney General. For complete and latest warranty information, please see www.ECOsurfaces.com .

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