



# Impression™ LV Stair Tread

## INSTALLATION

This document is intended for professional use to provide minimum requirements for substrate preparation, adhesive application, and special installation requirements for a successful installation of these products, each unique application may require additional or further steps to ensure complete satisfaction. We rely on the expertise and professionals that are installing the products to adjust based on site conditions. Refer to the product website to confirm that you have the most current revision of this document as the requirements contained within are essential to maintaining the full system warranty for the product installed. Documentation available at time of installation will be referenced regarding warranty. In the table below, you can click on the section that you are looking for to reach that section with ease.

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### RECOMMENDED ADHESIVES

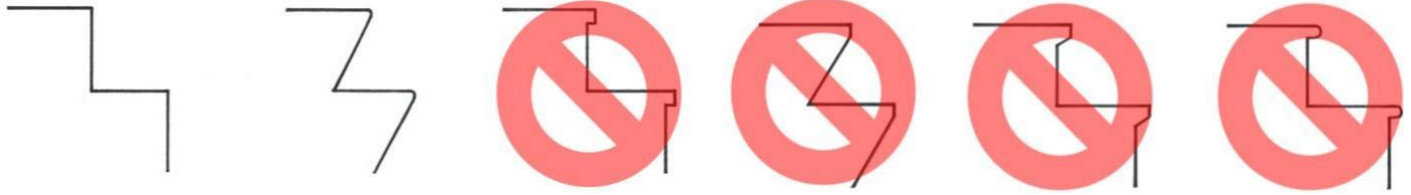
The adhesives below are the recommended adhesives for installing this product. The first one listed is the primary installation method recommended for applications when the conditions are met as listed. Select the appropriate application method based on the conditions of the substrate. Refer to the adhesive technical data sheet for additional information and when to utilize a different adhesive.

| Required for Installation |                | EN-610 Epoxy Nose Filler is Required for All Impression LV Stair Tread installations. |                               |
|---------------------------|----------------|---------------------------------------------------------------------------------------|-------------------------------|
| Adhesive                  | Substrate      | Installation Method                                                                   | Recommended Trowel            |
| TP-620                    | All            | Dry-Set                                                                               |                               |
| PS-525                    | Absorptive     | Wet-Set                                                                               | 1/16" x 1/32" x 1/32" U Notch |
| PS-525                    | Non-Absorptive | Tacky-Wet                                                                             | 1/16" x 1/32" x 1/32" U Notch |
| U-705                     | Absorptive     | Wet-Set                                                                               | 1/16" x 1/16" x 1/16" V Notch |
| U-705                     | Non-Absorptive | Wet-Set                                                                               | 1/16" x 1/32" x 1/32" U Notch |
| EW-710                    | Absorptive     | Wet-Set                                                                               | 1/16" x 1/16" x 1/16" V Notch |
| EW-710                    | Non-Absorptive | Wet-Set                                                                               | 1/16" x 1/32" x 1/32" U Notch |

### INSTALLATION CONSIDERATIONS

**If the profile of the step does not match the profile of the nose of the stair tread and the step cannot be made to conform to the profile of the nose of the stair tread, continuing the installation is not recommended and will not be covered by the product warranty.**

**There are only two nosing profiles that are approved for the installation of Impression Luxury Vinyl Stair Treads. Please see the image to identify your step profile.**



### BUTTING TREADS

**Wider stairwells** will require additional planning and dry fitting before installation.

We manufacture our treads according to the requirements of **ASTM F2169** which states “the length shall be the manufacturer’s standard, or as specified, and can be longer to be trimmed to fit”. It is our goal to package treads 1/2” - 3/4” longer than stated to allow for trimming to fit. **Our treads are intended to be trimmed on each end of the tread length and depth.**

Determining where the tread will be seamed is up to the designer or end user but typically is in the center or under a handrail to minimize visibility. It is recommended for patterned treads to seam between the patterns if possible and prepare that seam prior to fitting to step for finished length. **ASTM F2169** states “When butting stair treads together on one stair, there should be no more than 1/16” thickness difference between the two adjoining treads”. It may be necessary once the seam is prepared to place the treads top down on a protected surface and **sand the back to remove any gauge differential.**

### STORAGE, HANDLING, INSTALLATION, SERVICE, & ACCLIMATION ENVIRONMENT

The reported technical data information for these products is based on a formulation that is designed, manufactured, and evaluated to perform at constant temperatures, not fluctuating more than 10° from normal selected service temperatures from the allowable range.

These products are designed for service within environments ranging from 60° F (15° C) - 85° F (26° C) unless otherwise noted in the specific installation section. These products are designed for service within ambient relative humidity between 40% and 60%.

All products must be stored in an indoor, climate-controlled (60° - 85° F) space and protected from the elements.

All products must be stored on a dry, flat, level surface. Carefully stacked, aligned neatly and not on edge. Do not stack pallets and protect products from damage.

**Service Environment** is defined as the environment in which the materials will be utilized.

**Service temperature** is defined as the normal setting of the HVAC in the environment in which the material is installed, i.e., typically 70° - 72° F in most commercial applications.

**Acclimation of the material** is achieved when the following conditions are met within the installation area.

- The facility or **service environment** must be fully enclosed, sealed and weather tight.
- Building HVAC must be up and running in permanent operation prior to installation (if temporary systems or systems other than the permanent HVAC systems are utilized it must be capable of maintaining the same conditions as the permanent HVAC and/or service conditions).
- Maintain all products and adhesives in the installation area at the **desired service temperatures** for a period of 48 hours prior to installation, during the installation and for the service life of the installation.
- **Temperature** must be maintained between 60° F (15° C) - 85° (26° C), preferably at the **desired service temperature.**
- **Relative Humidity** must be maintained between 35% - 65%. Understand that Relative Humidity does not affect the installation of the material, but it can affect the functionality of the adhesives. Outside of the ranges, the stated information regarding open times, flash times, & dry times will vary.

It is recommended to utilize a cloud-based or similar **data logging system** during installation to provide temperature & humidity data in the event of a warranty issue.

While we do our best to provide quality products and workmanship in our manufacturing facilities, quality installation is the responsibility of the installer. Inspect all material for proper type, color, and matching lot numbers if appropriate. We ask that we are notified of any inaccuracies or defects prior to installation as **we do not pay labor for or material costs on installed materials with visual defects.**



**Users are advised to confirm suitability of these products by their own tests and ensure that all adhesives intended for installation meet the requirements of the end user.**

If there are concerns regarding this information or the service temperature, substrate temperature or installation environment will not meet these requirements, please contact Technical Services for recommendations prior to installation at [solutions@rhctechnical.com](mailto:solutions@rhctechnical.com), we will be happy to discuss and provide direction or confirmation of the project at that time.

### **SUBSTRATE PREPARATION**

Substrates must be clean, smooth, permanently dry, flat, and structurally sound.

At the time of installation substrates must be free of visible water or moisture, dust, paint, sweeping compounds, post placement curing compound residues, residual adhesives, chemical adhesive removers, concrete hardeners or densifiers residues, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and any other extraneous coating, film, material, or foreign matter. If not, consideration should be taken regarding the effects of these conditions and how they can affect the installation.

It is recommended that all substrates have a **flatness tolerance** of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement shall have a cementitious patch or self-leveling underlayment installed to flatten the installation area, uneven substrates can and will lead to **wavy noses** after installation.

All substrates must have all existing adhesives, materials, contaminants, or bond-breakers mechanically removed via scraping, sanding, grinding, or buffing with a 25 grit DiamoBrush Prep Plus tool prior to adhesive installation. In extreme situations, shot blasting may be required. Mechanical preparation must expose at least 90% of the original substrate. Following cleaning and removal, all substrates must be vacuumed with a HEPA approved vacuum and flat vacuum attachment to remove all surface dust. Sweeping without vacuuming will not be acceptable.

**Do not use solvent/citrus based or other chemical adhesive removers or oil-based cleaning compounds before installation.**

Regarding substrate preparation when mechanical sanding, grinding, shot blasting, and vacuuming always follow the Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesives," and all applicable local, state, federal and OSHA requirements regarding Asbestos and Silica containment regulations.

### **NON-APPROVED SUBSTRATES**

**Existing Resilient Stair Tread** products or Concrete substrates that have been abated or prepared with chemical adhesive removers, solvents, or chemical cleaners.

Existing **Checker Plate or Diamond Plate** is not recommended for direct installation. These should be prepared appropriately before installation.

### **CONCRETE SUBSTRATES**

All concrete substrates that have an ICRI Concrete Surface Profile (CSP) over 4 shall be smoothed with a self-leveling underlayment or a patch to prevent imperfections from telegraphing through flooring materials.

All **concrete filled metal pans**, the concrete must be well bonded and secure without movement. It must be flush and level with **rolled metal leading edge** of the step.

- When laying a square or straight edge from back to the front of the step, if the concrete is higher than the leading edge the concrete will need to be ground level and flush.
- If the concrete is lower, then a compatible cementitious patch must be used to level out and make flush.
- Make sure that spot welds do not get in the way of the treads along the sides.
- Be sure that concrete is smooth and flat along the sides of the steps where it meets the stringer.

**Moisture testing** is an essential part of determining the suitability of a concrete substrate to receive a resilient stair covering. Moisture testing should be performed on any concrete substrate that shows signs of an issue or where there are concerns present. Typically, moisture testing is not performed on Stair Tread installations. If testing is performed verify results according to the selected adhesive for application for compatibility.

- All concrete substrates must be evaluated per **ASTM F3191** to confirm **porosity (absorption rate)**. This is utilized to determine the method of adhesive application or how the adhesive will act upon the concrete and determine the application method of the adhesive.



- All concrete substrates must be evaluated for **dew point** before installation. The substrate temperature shall be at least 5° F above the dew point.
- All concrete substrates should be evaluated per **ASTM F3441** to determine **pH** range of the concrete at time of installation.
- Concrete substrates containing **radiant heating systems** are suitable for this product. Reduce the setting of the system to 65° F for the acclimation period. 48 hours after installation the temperature can be gradually increased to a maximum setting of 85° F.

We suggest performing an **ASTM F3311 Mat Bond Evaluation of Performance and Compatibility for Resilient Flooring System Components Prior to Installation** to alleviate any concerns regarding the condition of the substrate and if it is ready to receive resilient flooring.

### WOOD SUBSTRATES

Wood substrates must meet local and national building codes and be prepared appropriately to receive resilient stair treads.

Wood substrates shall be rigid and free of any movement.

It shall be structurally sound and designed as a resilient flooring underlayment, smooth enough to prevent telegraphing through the flooring product.

At a minimum, existing stripwood plank or any board types that are unacceptable, must be covered with appropriate underlayment grade plywood.

- For stripwood subfloors with a face width of 3" or less and is tongue-and-groove and with a smooth surface, use minimum 1/4" thick approved panel to cover and reduce the potential of board telegraphing.
- For stripwood subfloors with a face width of greater than 3" or not tongue-and-groove, or with a rough surface, use a minimum 1/2" thick approved panel to cover and reduce the potential of board telegraphing.

Countersink nail heads and fill depressions, joints, cracks, gouges, and chipped edges with a good quality Portland cement-based patching compound designed for this purpose.

**Fire & Pressure Treated Plywood** may serve as part of the installation substrate. Many variations of this product are not designed or finished to ensure smoothness necessary underneath resilient flooring and therefore should either be patched, self-leveled, or covered with appropriate underlayment grade plywood prior to the installation of resilient flooring. Consult appropriate manufacturers regarding the types of products and their application over these substrates. If bonding to it directly, our recommendation is to treat the substrate as non-porous or non-absorptive.

**OSB (Oriented Strand Board), particle board, chipboard, lauan, or composite underlayments must not be used directly under resilient stair treads.** These should not be used in Commercial applications and in Residential applications they are not typically smooth enough to allow for the installation of resilient flooring products

### EXISTING FLOORING SUBSTRATES

With **Terrazzo or Ceramic existing stairs**, ensure existing coverings are a single layer of material and that all materials are clean, dry, sound, solid, well adhered, and free of factory and/or site-applied finishes, waxes and/or contaminants. Remove and repair all loose tiles and utilize a suitable primer and cementitious patch to fill grout lines and other depressions.

**Metal substrates** must be mechanically sanded/ground/abraded and cleaned of any residue, oil, rust and/or oxidation. The substrate must be smooth, flat and sound before installation. When installing in areas that may be subject to topical water or moisture and/or high humidity, an anti-corrosive coating must be applied to protect metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous/non-absorptive substrates.

**We highly recommend the removal of all other flooring types to the original substrate prior to the application of new resilient flooring products. However, we know there are certain times this cannot be or should not be avoided. Please refer to additional documentation regarding existing**

### INSTALLATION

**By covering a substrate, underlayment, or existing surface, you have indicated acceptance of the substrate and installation environment.**

**If the profile of the step does not match the profile of the nose of the stair tread and the step cannot be made to conform to the profile of the nose of the stair tread, continuing the installation is not recommended and will not be covered by the product warranty.**



### USING THE TP-620 STAIR TREAD TAPE ADHESIVE

TP-620 is a pressure sensitive stair tread tape adhesive that is amber in color with a visible scrim inside the adhesive with a release paper. It is available in multiple widths for various uses within the installation of stair treads, risers, and/or stringers. It is a firm permanent bond adhesive and not intended to be treated as a releasable adhesive.

There are two methods of applying the tape to substrate depending upon use and the type of treads being installed and whether there are risers being installed with the treads.

***We do recommend complete coverage of the substrate with full installations, especially with One-Piece Stair Tread with Riser installations.***

- Vacuum the surface with a brush attachment, damp mop the substrate, & allow it to fully dry prior to installation.
- Starting at the bottom riser, place the tape along the bottom edge and cover the width of the tape.
- Roll out the material preventing wrinkles while making sure the tape is smooth and well bonded to the substrate, using a straight edge to smooth the surface will help to prevent wrinkling.
- Place the next run of tape as close to the edge of the last run as possible while making sure the tape is smooth and well bonded to the substrate, using a straight edge to smooth the surface will help to prevent wrinkling. If overlapped it can be double cut to ensure a good seam.
- Continue to apply in this manner until you reach the top landing or riser.
- Once TP-620 is in place and Stair Treads are fit properly to the step, installation can proceed.
- Apply the EN-610 to the underside radius of the nose of the stair tread.
- Remove the release paper completely from the strips of tape as material is being placed up the stair well or as you are placing material.

### STAIR TREAD INSTALLATION

For the installation of this product, we highly recommend the use of the Proknee Treadman installation jig and One-Piece Tread/Riser Template Kit. It is available from this link - <https://www.proknee.com/treadman>.

Other recommended tools for installation include a comfortable raised table or work surface and a heat gun to assist in the cutting of the material, always heating the underside of the material. If a Treadman is not available, we will describe an alternative method to fit the treads to the steps prior to installation. If not using the Treadman, it is necessary to order an additional tread to use the ends for pattern scribing.

### PREFERRED METHOD FOR PATTERN SCRIBING OF TREADS WITH TREADMAN

Watch the One-Piece Step/Riser installation video for the Treadman @ [Treadman Operating Instructions Video](#). Even though this video accommodates for the tread and riser going up, we will adapt the Treadman to install the tread and riser going down. Because of that, Treadman will need to be modified. When installing the Template Kit extension tabs they will need to be reversed from the video.

The tab that would have been applied on the top left plate will now be applied to the bottom right plate (as per the top left pic). The top right will now be the bottom left plate. Because the tabs are being used on the bottom riser (usually shorter than the top) the length of the tabs might need to be cut.

- Apply the tape over the extension tabs as per the video.
- Be sure to place spacers under Treadman to adjust for the thickness of the material.
- Adjust the Treadman plates on the top for the tread and the bottom for the riser to ensure a tight fit.
- Mark down the width of the step on Treadman for reference.
- Scribe both sides of the riser to the stringers, and the bottom edge to the tread or flooring below with the scribe plate (provided) or dividers onto the tape.
- Remove the Treadman from the step and place over the Impressions Luxury Vinyl Stair Tread and transfer lines from the jig.
- If using the J-Channel Transition piece between the Tread and Riser portions, allow 3/8" to 1/2" gap at the bottom of the riser.
- Once tread is properly fitted, remove the green tape from the extension tab on the Treadman, apply new tape for new scribe marks of the next tread as all treads may not be the same and new tape will be required.

### OPTIONAL METHOD FOR PATTERN SCRIBING TREADS

- Cut two strips from an extra tread, roughly 3" wide and trim material from the tread and riser portion so they will fit well onto the step and use for spacers. These will be used to place under the Left and Right Pattern Pieces to account for the thickness of the actual treads when scribing.
- Cut the remainder of the extra tread in half making sure the center cut is straight and square. These straight and square edges will be used as "marking edges". These will now be called Left and Right Pattern Pieces.
- Cut openings in the tread portion of the patterns. These will allow them to be taped into place when scribing.
- Measure the average depth of each tread and height of each riser. Then cut the pattern pieces approximately 1" shorter.
- If the depth is 12" and rise is 7", then cut the patterns 11" and 6".
- Apply scribing tape along three sides of each pattern piece.
- Place spacers under the first pattern piece and tape material through cut-out so it will not move while scribing.
- Mark a clean, crisp pencil line along the "marking edge" of the pattern piece on the step surface.
- Proceed with scribing the first pattern pieces on three sides.
- Repeat this process on the second pattern pieces, remember to use the spacers.
- ***Make sure to mark a clear, crisp pencil line along the marking edge. It is important to make sure the pencil lines are clearly marked as they will determine the proper measurement when using the pattern pieces to cut the tread.***
- If using the J-Channel Transition piece between the Tread and Riser portions, allow 3/8" to 1/2" gap at the bottom of the riser.
- After scribing both sides, remove pattern pieces from step.
- Place a full size tread piece on the work surface and transfer pattern pieces onto full size tread without the spacers.
- Measure the distance on the step between your marking lines of the left and right pattern pieces.
- Secure pattern pieces with tape at the proper distance between patterns, ensuring the pattern pieces are tight to the tread.
- Allow enough space on each side for scribe distance.
- Once tread is properly fitted, remove the green tape from the Pattern Pieces, apply new tape for new scribe marks of the next tread as all treads may not be the same and new tape will be required.

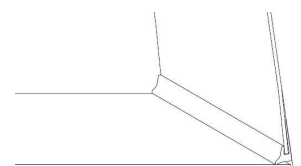
### FINAL CUTTING AND INSTALLATION OF TREADS

- Be sure you have a solid full-size box or table to place LVT blank on while working and transferring scribed lines.
- After transferring lines, score and cut material. Due to the thickness and durability of the product, do not try to cut through material in one pass. Multiple passes will be required.
- A **heat gun** can be used to help soften material during the cutting process. ***Be sure to heat material from the back side.***
- When cutting is finalized, fit the tread to step and fine tune from there.
- Sometimes a **slight under bevel cut** along the edge will help.
- If the J-Channel Transition piece is going to be used at the bottom of the tread, allow a 3/8" to 1/2" gap at the bottom of the riser.

### J-CHANNEL TRANSITION INSTALLATION

The J-Channel Transition is a trim piece that transitions from the riser of one step to the tread of the step below. It can assist with slight deflections or gaps caused by substrate imperfection at the transition point. It is recommended to estimate how many "**steps per piece**" you will need rather than estimating "**linear feet required**" to save from unnecessary end seams.

- Lay a straight edge across the width of the step to see exactly how flat treads are from side to side.
- The riser above the Impression Stair Tread needs to have an allowable gap (usually 3/8" – 1/2") at the bottom for installation of the J-Channel Transition.
- Cut the J-Channel slightly longer with a little compression upon installation.
- See diagram for material placement.





### FINISHING THE INSTALLATION

- When using the Excelsior TP-620 Pressure Sensitive Tape Adhesive or the C-631 Contact Adhesive, be sure to clean dusty and/or cementitious substrates with a vacuum, sponge, or damp mop prior to installation to remove dust, dirt, and debris.
- **Clean the underside of the stair nosing with a clean white rag or towel and denatured alcohol or equivalent solvent.**
- Continuously change the rag or towel to prevent transferring mold-release after building up in the cleaning rag or towel. Failure to do so may cause bond issues due to mold-release chemical contamination.
- When installing adhesive other than TP-620 on steps, be sure to leave a 1/2" - 3/4" space on either side of the step nose to accommodate the Excelsior EN-610 Epoxy Nose Filler Adhesive, if needed, to avoid adhesive cross-contamination.
- Periodically lift material to ensure proper adhesive coverage. Adhesive **should cover 90%** of nosing when rolled into place.
- Using a suitable hand roller, carefully **roll material** to ensure contact with adhesive within 30 minutes of installation.

### POST INSTALLATION STAIR TREAD PROTECTION

We recommend that the installation of stair treads be performed after all other trades have completed their work. If this is impossible, properly protecting the new stair treads is essential to prevent damage. So, the following should be considered immediately following the installation process.

Sweep or vacuum flooring to remove loose dirt, debris, and grit so that it does not become trapped under protection.

Protect newly installed stair treads with construction grade undyed kraft paper or protective boards, such as Ram Board, ThermoPLY, 1/8" Masonite panels, or other materials to prevent damage by other trades.

Restrict traffic for a minimum of 24 hours unless utilizing a dry-set application method that allows immediate foot traffic.

Do not allow items to be dragged or slid up or down the stair treads after installation.

Initial cleaning can take place after a minimum of 72 hours after the installation is completed.

### SUPPORT & ADDITIONAL RESOURCES

|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Support Phone & Email       | (800) 537 – 9527 / <a href="mailto:sales@roppe.com">sales@roppe.com</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Technical Support Phone & Email     | (844) 393 – 4044 / <a href="mailto:solutions@rhctechical.com">solutions@rhctechical.com</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product Technical Documentation     | <a href="http://www.roppe.com">www.roppe.com</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Associated or Related Documentation | <a href="#">Excelsior TP-620 Stair Tread Tape</a><br><a href="#">Excelsior PS-525 Modified Pressure Sensitive Adhesive</a><br><a href="#">Excelsior U-705 Urethane Adhesive</a><br><a href="#">Excelsior EW-710 Urethane Enhanced Two-Part Epoxy Adhesive</a><br><a href="#">Understanding Excelsior Adhesive Products Technical Bulletin</a><br><a href="#">Referenced Standards within Technical Documents Technical Bulletin</a><br><a href="#">Impression LV Stair Tread Technical Data</a><br><a href="#">Impression LV Stair Tread Care &amp; Maintenance</a> |

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