Performance Compound Oil & Grease Resistant Rubber Treads

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 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.

RECOMMENDED ADHESIVES

The adhesives below are the recommended adhesives for the installation of 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.

Recommended for Installation	#167 Fillet Strip for One-Piece Stair Tread with Riser EN-610 is not required on all installations. EN-610 is recommended for installations that occur on older substrates such as worn metal, worn wood, and/or worn existing approved tread types. EN-610 is required if a gap between the underside of the tread and the substrate greater than 1/4” is present. If a gap of 1/2” or greater is present, the substrate should be prepared using other methods.

Adhesive	Substrate	Installation Method	Recommended Trowel
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

When installing Performance Compound Oil & Grease Resistant Rubber Stair Treads, it is important to review the substrate to ensure there is no contamination from previous exposure to Oil & Grease. Existing contamination will create an issue with bonding of the adhesives and the ability of the adhesive to remain bonded to the substrate.

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.

Stair Treads including abrasive, smooth or ribbed inserts should be treated with extra caution. Folding or carrying longer treads with inserts over the shoulder will cause the inserts to stretch and possibly buckle after installation.

BUTTING TREADS & PATTERN ALIGNMENT

Wider stairwells and stairwells that require pattern alignment will require additional planning and dry fitting prior to 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 length and the depth of the tread***. We recommend ordering treads the next size up to achieve these layouts and installations on certain patterned treads.

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 to 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***.

ONE-PIECE STAIR TREAD WITH RISER

When installing One-Piece Stair Tread/Riser products, it is highly recommended to use a ***#167 fillet strip*** in the angle where the step and riser meet. This piece should be installed prior to properly fitting the one-piece stair tread/riser. We recommend using the ***1" TP-620 Tread Tape*** to install the #167 fillet strip.

We also highly recommend the use of the ***TP-620 Tread Tape Adhesive*** to install the One-Piece Stair Tread/Riser products to help with the installation process. Not only does it allow for immediate access of the stairwell, it aides in placing and keeping the nose portion in place while not having to wait on adhesive to cure.

ABRASIVE and/or SMOOTH / RIBBED RUBBER INSERTS

When cutting treads tight to the stringer they will expand slightly due to ***thermodynamics*** and the ***laws of physics***. When this occurs with the treads, the strip will buckle in the channel. Therefore, after installing treads with abrasive or smooth / ribbed rubber inserts, the inserts must be *trimmed 1/16" from the ends on both sides of the tread*.

STORAGE & HANDLING, INSTALLATION & SERVICE ENVIRONMENT, & ACCLIMATION

- 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.

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 60° F (15° C) - 85° F (26° C) range. These products are designed for service on substrate temperatures 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%.

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

- **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.
- **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.
- Facility 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 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.
- 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 understand that most stair treads are installed in areas that are temperature controlled, there are areas where treads are installed that are not fully temperature controlled. Stair wells that are not commonly used or only used in certain conditions that do not contain ventilation.
    - ***In these areas it may be necessary to sand the backs of the treads and utilize U-705 adhesive for the best performance.***

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.

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

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, we will be happy to discuss and provide direction or confirmation of the project at that time.

SUBSTRATE PREPARATION

All 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 DiamaBrush 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 sweeping compounds prior to 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 prior to 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 application method of the adhesive.

- All concrete substrates must be evaluated for ***dew point*** prior to 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.

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 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.

OSB (Oriented Strand Board), particle board, chipboard, lauan, or composite underlayments must not be used under resilient stair treads.

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. substrate must be smooth, flat, and sound prior to 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

ADHESIVE BOND TEST

An ***adhesive bond test*** must be performed using actual stair tread and adhesive materials being installed to determine adequacy. Test areas should be a minimum of 36” and remain in place for at least 72 hours prior to evaluation for bond strength to the substrate. This will help to ensure application of the adhesive and the bond achieved is adequate for the project to continue.

INSTALLATION

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.

The predominant step being used in construction today is the metal formed frame with a concrete filled pan, having a nose radius of 1/2” maximum as spelled out in the ***ADA guidelines***. When installing Rubber Stair Treads on these substrates, either new construction or remodel, they ***do not require the use of the EN-610 Epoxy Nose Filler***. Fitting the tread properly to the step and creating a tight fit to the substrate will ensure proper installation and performance of the Stair Tread.

For installations that occur on other substrates (worn metal, worn wood, and/or worn existing approved tread types), the EN-610 Nose Filler may be necessary to ensure proper fit to the substrate. These substrates need to be verified for uneven wear and corrected appropriately using the best means available. One of these means is the EN-610 Epoxy Nose Filler.

EN-610 is required if a gap between the underside of the tread and the substrate greater than 1/4" is present. If a gap of 1/2" or greater is present, the substrate should be prepared using other methods.

Select the appropriate adhesive for the substrate in which the treads and risers are being installed. ***It is possible for Concrete Filled Metal Pan stairs to require different adhesives or different application methods of the same adhesive for installation.***

DENATURED ALCOHOL

- Denatured alcohol or similar products should be used to remove the 'mold-release' from the back side of the treads prior to installation to ensure a proper bond.
- In some extreme instances it may be necessary ***to sand the back side of the tread to achieve maximum bond*** prior to wiping with denatured alcohol.
- Sometimes denatured alcohol is sold as ***camping stove fuel or methylated spirits*** in areas where "denatured alcohol" is not available.

STAIR TREAD & RISER INSTALLATION

Handling Extended Width Stairwells

Wider stairwells that require butting two treads together will require additional planning and dry fitting prior to installation. We recommend ordering treads the next size up to achieve these layouts and installations. Treads with VI or Abrasive strips may require mixing and matching to achieve the desired installation result.

Stair treads have an acceptable level of thickness variation from tread to tread. For this reason, stair treads that are intended to be butted together may need to be sanded, undercut, or shimmed in order match the thickness of adjacent treads. Treads should be trimmed so that the center of the pattern or profile is at the seam.

Once butting seams are cut and patterns are aligned the use of the Excelsior U-705 Urethane adhesive should be used at the seams to help adjust for slight height variations and to hold the seam tight.

Handling Top Steps & Mid-Landings

When installing a full-size tread on the top step or landing and it will be butted up to flooring materials on the upper floor or landing, always check the thickness of the two materials. Due to the way treads are manufactured the gauge of the material can vary depending on where they are cut to butt up to the tiles.

Patching, shimming, or sanding of the treads may be required to match the two materials in thickness for a flush installation. This is especially true on open landings where the tile will have to wrap around the side of the tread.

Three Side Scribe Method for Stair Treads

- When final cutting treads we recommend utilizing an ***undercut*** to provide for the appearance of a tight fit as well as leaving room for expansion. There should be no more than a 1/16" gap between the tread and the stringer after installation.
- Determine the center of the stairwell and mark a center line on the riser portion of each step.
- Determine the center of each stair tread and mark a center line on the back edge of the tread for alignment during trimming and installation.
- Align the stair tread to the right side of the step and set divider to the distance between the center mark on the step riser and the center mark on the stair tread.
- While applying firm pressure to the stringer material with divider, mark the stair tread with the divider to determine scribe line.
- If using a One-Piece Tread & Riser, scribe the riser portion of the tread as well.
- Use a suitable knife to trim stair tread along scribe mark and create a slight undercut to ease final installation.
- Once the right side of the tread is scribed and trimmed, reposition the stair tread to align to the left side of the step.
- Reset the divider to the distance between the center mark on the step riser and the center mark on the stair tread.
- Use divider to scribe stair treads as before and trim stair tread along scribe mark, creating a slight undercut.

- Ensure that stair tread fits step snugly against stringers without over-compressing tread material.
- To aid in scribing and trimming the back edge of stair treads, a spacer (such as a carpenter's level, 1" x 2" wood or equivalent) is required to set the depth of the tread.
- Prior to cutting the back edge of the stair tread, measure the depth of the step and the thickness of the spacer.
- Rough cut stair treads to be at least 1/4" deeper than the step but no deeper than the width of the spacer.
- Once the back edge has been rough cut, align stair tread to the back of the step riser above.
- Insert the spacer between the leading edge of the stair tread and the step nose, ensuring that the spacer and stair tread fit snugly against the step.
- Set the divider to the exact width of the spacer and scribe the back edge of the stair tread to the step riser.
- Trim the back edge stair tread along scribe mark, creating a slight undercut to ease installation.
- Ensure that all sides of the stair tread fit snugly to step while avoiding over-compressing material.
- Once the initial step has been scribed and trimmed, the riser should be scribed and trimmed to accommodate imperfections in the step stringers using the Two Side Scribe Method.

Scribing Risers

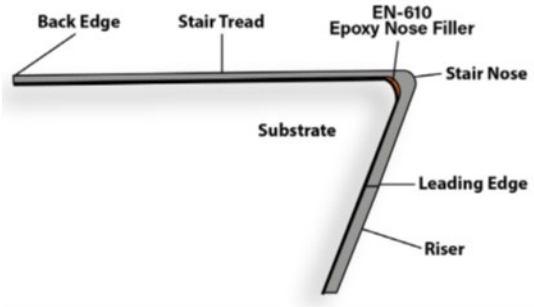
- Prior to trimming risers, ensure that the stair tread below has been trimmed and fits snugly on the step beneath the riser.
- Use the previous center mark used when trimming the adjourning stair treads as the center of the stairwell, ensuring that center mark is visible while trimming risers.
- Repeat the process for scribing each end of the tread, to scribe both ends of the riser to the stairwell.

HANDLING THE STAIR TREAD NOSE & RISER INTERSECTION

The seam between the leading edge (nose) of the stair tread and the riser should be treated using one of the following methods. Regardless of the method utilized, the leading edge (nose) must be fully adhered.

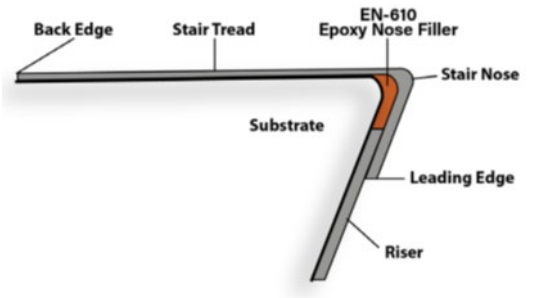
Butting or Scribed Seam Method

- When butting stair tread and riser seams using the Scribed Seam Method, ensure that the stair tread above and below the riser, as well as the riser itself, have been trimmed and fit the step snuggly.
- Ensure the stair tread below the riser is in place prior to scribing the riser to ensure a tight fit to the leading edge of the stair tread above.
- Overlap the stair tread above the riser with the riser while ensuring that riser toe is not over-compressed. Using the leading edge of the stair tread as a guide, a divider or a marking tool is needed to scribe the riser.
- Use a suitable knife to trim riser along the scribe mark.



Overlapping Seam Method

- When overlapping stair tread and riser seams, ensure that the stair tread and riser have been trimmed and fit the step snuggly.
- Risers do not normally require trimming on the top edge prior to installation when overlapping seams. However, if the top edge of the riser extends up to or over the height of the step, ***trim riser to 1/4" - 1/2" from the top of the step*** to allow space for the EN-610 Epoxy Nose Filler Adhesive if needed.



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 result in bond issues due to mold-release chemical contamination.
- When installing adhesive on steps, be sure to leave a 1/2" - 3/4" space on either side of step nose to accommodate the Excelsior EN-610 Epoxy Nose Filler Adhesive, if needed, to avoid adhesive cross-contamination.
- ***All noses (leading edges) must be adhered to either the riser (if overlapped) or riser substrate (if butted or scribed) when installing stair treads, using either the TP-620 Tread Tape or C-631 Contact Adhesive. This applies to all steps including square edge and ADA steps with an angle.***
- 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.

…after installing treads with abrasive or smooth / ribbed rubber inserts, the inserts must be trimmed 1/16" from the ends on both sides of the tread.

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 not possible, 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.
- Post Installation, Prior to Service Maintenance requirements can take place after a minimum of 72 hours after the installation is completed.

SUPPORT & ADDITIONAL RESOURCES

Product Support Phone & Email	(800) 537 – 9527 / sales@roppe.com
Technical Support Phone & Email	(844) 393 – 4044 / solutions@rhctechnical.com
Product Technical Documentation	www.roppe.com
Associated or Related Documentation	Excelsior EN-610 Epoxy Nose Filler Excelsior U-705 Urethane Adhesive Excelsior EW-710 Urethane Enhanced Two-Part Epoxy Adhesive Referenced Standards within Technical Documents Technical Bulletin Performance Compound Oil & Grease Resistant Rubber Stair Tread & Riser Care & Maintenance