

TECHNICAL DATA

Roppe rubber stair treads, risers and stringers are specifically designed for use on most interior stairs, including pan-filled concrete and wood substrates. Roppe rubber stair treads are vulcanized and compression-molded from a high-grade synthetic rubber compound that is solid, homogeneous and durable. Roppe offers a variety of options within the rubber stair tread product line, including treads with abrasive, smooth or ribbed inserts in a multitude of standard colors and the option to customize colors and color combinations.

This document is intended to cover Technical and Installation information for the following Roppe collections: Solid, Marbleized, Fiesta, Marble Fiesta, Symmetry, and SafeTCork Rubber & SafeTCork Fiesta

ASTM F2169 – Resilient Stair Treads: **Type TS, Class 1 & 2, Group 1 & 2, Grade 1**

ASTM E648 (NFPA 253) - Critical Radiant Flux: **Class I, > 0.45 W/cm²**

ASTM E662 (NFPA 258) - Smoke Density: **Passes, <450**

CAN/ULC-S102.2 - Surface Burning: **Flame Spread Rating (FSR) 115, Smoke Developed Classification (SDC) 275**

ASTM F925 - Chemical Resistance: **Passes (chart available from solutions@rhctechical.com)**

ASTM D2047 - Slip Resistance: **> 0.6**

Recommend Storage, Acclimation & Service Temperature: **65° - 85° F**

Acclimation Time: **48 Hours in Service Conditions**

Sustainability Information: [FloorScore Certificate Available](#), [HPD Available](#), [NSF 332 Gold](#), **Qualifies for LEED Credits, Recyclable through the [Roppe Impact Program](#)**

Technical Support: solutions@rhctechical.com

ADHESIVES & ITEMS FOR INSTALLATION

Approved Adhesives

[Excelsior TP-620 Pressure Sensitive Tape](#) - Most versatile and best option for installing all stair treads. Pressure sensitive and allows for immediate use of the stairwell. Substrate should be dust free.

[Excelsior AW-510 Acrylic Wet-Set Adhesive](#) - Wet Set Adhesives for installing rubber stair treads. 1/16" x 1/16" x 1/16" V Notch Trowel. Allow trowel valleys to dry clear, cover and roll within 45 minutes.

[Excelsior C-630 Contact Adhesive](#) - Applied with a brush or short nap roller. Allow to dry to touch with no transfer to finger. Once "dry to touch" cover and roll within 90 minutes.

[Excelsior EW-710 Epoxy Wet-Set Adhesive](#) - Two-Part Urethane enhanced epoxy for use in wet environments and butting tread installations

[Excelsior EN-610 Epoxy Nose Filler](#) - No longer required, but may be needed and is applied with a dual cartridge applicator with mixing nozzle (included with cartridge) in the inside radius of the tread or nosing to fill the void (if present) on substrate. Needed for existing substrates that are worn metal, wood, etc., or substrates with uneven wear. Check for gaps between the radius of the nose of the tread and the substrate. If a gap greater than 1/4" is present, it is required to use the EN- 610 Epoxy Nose Filler. If a gap of 1/2" or greater is present, the substrate should be prepared using other methods.

Accessory Items Required for Installation

Denatured Alcohol or similar material to clean and remove the mold release from the back side of the treads prior to installation to ensure proper bonding.

#167 Fillet strip (Cove Stick) when installing #95 & #96 one-piece tread & riser products. This is used to create a consistent radius at the junction of the tread & riser and provide support when the area is kicked to prevent breaking or puncturing.

Approved Substrates When Properly Prepared

Concrete, Wood, Metal, Terrazzo, Marble, Ceramic Tile

Non-Approved Substrates

VCT, Vinyl Flooring, Rubber Flooring, Linoleum Flooring, Rubber Stair Treads, Vinyl Stair Treads, Linoleum, and/or other resilient products

Butting Treads & Pattern Alignment

Wider stairwells and stairwells that require pattern alignment will require additional planning and dry fitting prior to installation. We recommend ordering treads the next size up to achieve these layouts and installations. Our treads are manufactured to be trimmed on each end of the length and the depth of the tread.

Adhesive Coverage Rates, Curing Times, and Traffic Limits

Coverage Rates (per gallon)			Traffic Limits		
Adhesive	Porous	Non-Porous	Foot Traffic	Heavy Foot Traffic	Maintenance
AW-510	160 sq. ft.	200 sq. ft.	24 Hours	48 Hours	72 Hours
EN-610	25-50 lin. ft. / cartridge		8 Hours	24 Hours	48 Hours
TP-620	164 lin. ft. / roll		Immediate	Immediate	Immediate
C-630	20-40 lin. ft. / pail		Immediate	Immediate	48 Hours
	Brushed & Rough Porous	Smooth Porous & Non-Porous			
EW-710	135 sq. ft.	150 sq. ft.	8 Hours	24 Hours	48 Hours

SUBSTRATE, INSTALLATION & MAINTENANCE INFORMATION

1. PRODUCT LIMITATIONS

- This is a commercial product intended for use in Commercial applications.
- Product is not intended or designed for use outdoors, including covered walkways or areas not completely enclosed.
- Product is not intended or designed for use in Commercial Kitchens or other areas subjected to animal, vegetable or petroleum based oils and solvents, (Performance Compound Treads should be used when subjected to petroleum based oils & solvents)
- Product is not intended or designed for use in areas subjected to sharp spikes, cleats, and/or other items that will cut and/or damage treads.
- Long term, extended or excessive exposure to Sunlight & UV Heat can cause discoloration or other undesirable effects, so use caution and/or window treatments in these areas.
- As Rubber stair treads age, color will darken with exposure to environmental conditions; some shading

should be expected with repairs from attic stock materials.

- We do not recommend the use of any floor finishes or sealers of any kind on stair tread products.
- Any references to open times, working times, etc. are subject to job site conditions including variations in porosity, surface finish and/or flatness of substrate as well ambient conditions such as air temperature, relative humidity and substrate temperature. Actual times will vary with these conditions.
- Roppe cannot accept responsibility for any loss or damage that may result from the use of this information, site conditions, and/or workmanship outside our control.

2. PRE-INSTALLATION

- Products must be stored indoors and protected from elements prior to installation.
- Do not flex, bend, or stand stair treads on end, especially treads containing inserts.
- In stairwells that are subject to intense or direct sunlight, product must be protected during the

acclimation, installation and adhesive curing times by covering the light source.

- Deliver all materials to the installation location in its original packaging with labels intact. Do not stack pallets to avoid damage. Remove any plastic and strapping from product after delivery. Inspect all material for proper type, color and matching lot numbers if appropriate.
- Protect installation area from extreme temperature changes, such as heat and freezing, as well as direct sunlight for at least 48 hours before, during and after installation. Ensure all substrate preparation and moisture testing requirements have been performed, read and/or understood by all interested parties.
- Allow all trades to complete work prior to installation.
- We manufacture our products with quality materials and craftsmanship. A quality installation is the responsibility of the installer. It is the responsibility of the installer to verify the materials checked for damage, defects, and acceptable color match as well as the correct product as ordered. Installation of these materials constitutes acceptance. Notify an appropriate distribution or Roppe representative of any discrepancies prior to installation.

3. ACCLIMATION & SERVICE ENVIRONMENT

- Ensure installation area and material storage temperatures are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and after installation. Ensure HVAC system is operational and fully functioning at normal operating conditions.
- We recommend maintaining a minimum service temperature of 55° F (13° C) and a maximum of 95° F (35° C) while maintaining an ambient relative humidity between 40% and 60% after installation.

4. SUBSTRATE PREPARATION

All substrates must be prepared according to ASTM F710, as well as applicable ACI and RFCI guidelines.

Substrates must clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and any other extraneous coating, film, material or foreign matter.

All substrates must have any and all existing adhesives, materials, contaminants or bond-breakers mechanically removed via scraping, sanding or grinding. Mechanical preparation must expose at least 90% of the original substrate. Following cleaning and removal, all substrates must be vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All porous substrates must be tested per ASTM F3191 to confirm porosity. All substrates that do not meet this requirement are considered non-porous. Ensure that all non-porous substrates are not contaminated with any aforementioned contaminants.

It is recommended that all substrates have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible cementitious patch (such as the Excelsior CP-300) or self-leveling underlayment (such as the Excelsior SU-310) installed to flatten the installation area.

Do not use solvent/citrus based adhesive removers prior to installation. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable OSHA standards.

CONCRETE SUBSTRATES

All concrete must have a minimum compressive strength of 3500 PSI and be prepared in accordance with ASTM F710. When stair treads are installed directly over concrete, surfaces that have an ICRI Concrete Surface Profile (CSP) over 4 should be flattened with a patching compound to prevent imperfections from telegraphing through stair tread materials.

WOOD SUBSTRATES

Wood substrates must be constructed per federal, state and/or local building codes. These should be fastened firmly and flat. All holes from fasteners should be countersunk and filled. Joints, cracks, gouges, and worn edges should be filled with a good quality Portland cement based product.

Solid or engineered hardwood flooring should have a plywood underlayment or suitable cementitious repair product at a minimum thickness of 1/4" over the hardwood flooring.

Other wood materials, such as OSB, lauan, particleboard, chipboard, fiberboard or cementitious tile backer boards, are not acceptable substrates.

TERRAZZO AND CERAMIC SUBSTRATES

Ensure the substrate is free of all sealers, waxes and/or other contaminants. Remove and/or replace all loose tiles and clean the grout lines. Fill all depressions and grout lines with a good quality Portland cement based product.

RESINOUS SUBSTRATES

When installing directly over a resinous products, such as an epoxy coating, ensure that coating is dry to the touch and has cured for the prescribed length of time.

Substrate must be clean, dry, sound and free of contaminants. Ensure to follow installation procedures and trowel sizes for non-porous substrates.

METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground 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. Contact a local paint or coating supplier for coating recommendations.

Install stair treads within 12 hours after sanding/grinding to prevent re-oxidation. Any deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

EXISTING STAIR TREAD SUBSTRATES

Do not install over existing resilient rubber stair treads, vinyl stair treads, or other resilient flooring products.

ADHESIVE BOND TEST

Perform an adhesive bond test using an actual stair tread and adhesives being used prior to installation to determine adequacy.

5. STRINGER INSTALLATION

PATTERN SCRIBE METHOD

All stringers should be installed prior to treads.

Using builders felt or equivalent, carefully scribe a template using the height, width and length of steps. Carefully trim template to match step, riser and step nose.

Place the stringer template over the stringer material and mark cut lines, and rough cut the stringer material. Make final adjustments prior to installing adhesive. Stringer should be flush with all step surfaces.

Apply adhesive according to instructions for specific product in use. Be sure to follow instructions based on substrate porosity (porous or non-porous).

Carefully position stringer to ensure that stringer material is flush with steps. Roll material with a hand roller or equivalent within 30 minutes of installation to ensure adhesive transfer. Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface.

6. STAIR TREAD & RISER INSTALLATION

The predominant step being used in construction today is the metal formed frame with a pan filled with concrete, having a nose radius of 1/2" maximum as spelled out in

the ADA guidelines. When installing 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, wood, existing approved flooring types), the EN-610 Nose Filler may be required 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. It is our recommendation to check for gaps between the radius in the nose of the tread and the substrate. If a gap greater than 1/4" is present, it is required to use the EN-610 Epoxy Nose Filler. If a gap of 1/2" or greater is present, the substrate should be prepared using other methods.

Of course, with any Stair Tread installation it is acceptable to utilize the EN-610 Epoxy Nose Filler.

THREE SIDE SCRIBE METHOD

If stringers are installed, protect with tape prior to scribing treads.

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

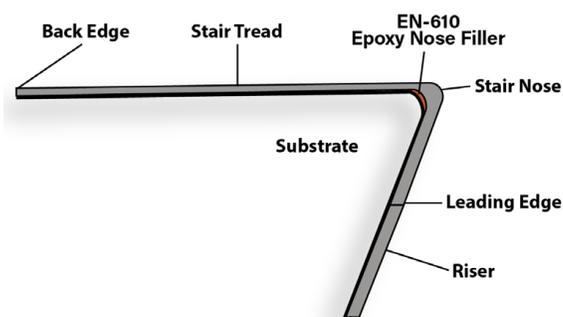
Prior to trimming risers, ensure that the stair tread below has been trimmed and fits snugly on the step beneath the riser. Use the previous center mark used when trimming the adjoining stair treads as the center of the stairwell, ensuring that center mark is visible while trimming risers. Repeat the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

HOW TO HANDLE THE 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.

BUTTING or SCRIBED SEAM METHOD

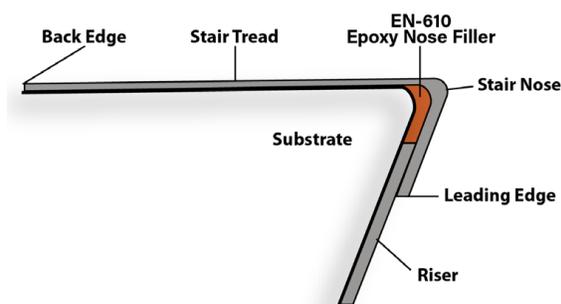
When butting stair tread and riser seams using the Scribed Seam Method, ensure that the stair tread above and below the riser, as well as the riser itself, have been trimmed and fit the step snugly. Ensure the stair tread below the riser is in place prior to scribing the riser to ensure a tight fit to 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, use a divider or a marking tool 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 snugly. 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.



CONTINUING THE INSTALLATION

When using the Excelsior TP-620 Pressure Sensitive Tape Adhesive or the C-630 Contact Adhesive, be sure to clean dusty and/or cementitious substrates with a damp mop or sponge prior to installation to remove dust, dirt and debris.

Clean the underside of the stair tread with a clean rag or towel and denatured alcohol or equivalent solvent adhesive remover. *Failure to do so may result in adhesion issues due to mold-release chemical contamination.*

Apply adhesive according to instructions for specific product in use. Be sure to follow instructions based on substrate porosity (porous or non-porous).

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 leading edges (noses) must be adhered to the either the riser or riser substrate when installing stair treads.

Roll material with a hand roller or equivalent within 30 minutes of installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface.

After installing treads with either abrasive or rubber inserts, trim the inserts back 1/16" from the ends on both sides of the tread.

7. ONE-PIECE TREAD AND RISER INSTALLATION

Follow information listed above for the fitting and placement of One-Piece Tread and Risers. The following is additional information recommended for installation of these products.

Prior to installing one-piece tread and risers, the Roppe #167 Cove Stick Fillet must be installed at the joint where the back of the step meets the step riser. Install the Cove Stick Fillet using the Excelsior TP-620 1" Tape or the Excelsior C-630 Contact Adhesive. *All one-piece tread & risers must be installed with Cove Stick Fillet. Failure to do so may result in premature wear and damage to the tread and or riser.*

To ease one-piece tread & riser installation, we recommend the use of the Excelsior TP-620 Pressure Sensitive Tape Adhesive to install material. Use 1" TP-620 tape to adhere tread nose, 4" TP-620 tape to install riser portion and 9 1/2" TP-620 tape to install tread portion. Install TP-620 directly stair treads to ease installation.

To install stair treads, remove protective paper from TP-620 on the tread nose and stair tread portion of the one-piece tread & riser and install treads onto step. Once the tread and tread nose are properly placed, remove the protective paper from the TP-620 on the riser portion of the one-piece tread & riser and form riser material up the step rise, ensuring there is full contact with the cove stick. If riser does not make full contact with cove stick, the cove area of the one-piece tread & riser could become damaged over time.

After installing treads with either abrasive or rubber inserts, trim the inserts back 1/16" from the ends on both sides of the tread.

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.

Roppe 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 EW-710 Epoxy should be used at the seams to help adjust for slight height variations and to hold the seam tight.

8. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance. Remove any protective coverings prior to cleaning. Sweep, dust mop and/or vacuum stair tread to remove any dirt, dust or debris.

Mix 2-4 ounces of Excelsior NC-900 All-Purpose Neutral Cleaner per gallon of clean, potable water. Use a clean mop to apply cleaning solution to floor and let stand for 5-10 minutes. Use a 22 gauge soft bristled deck brush to scrub stair treads in order to remove dirt, debris and any remaining mold release chemicals. If stair tread is heavily soiled, additional cleaning may be required.

Use a wet vacuum or clean mop to remove any and all excess cleaning solution. Rinse area with clean, cool water and allow floor to dry entirely.

Do not use detergents, abrasive cleaners or "mop and shine" type products, as they will dull the finish and sheen of the stair tread material. Do not use vacuums that have a beater bar or electric brooms with hard plastic bottoms or no padding, as this may cause discoloration, scratching and loss of sheen.

For further information regarding daily or routine maintenance, please consult the product care & maintenance document or the associated product technical data sheet.

9. FLOORING PROTECTION

Protect newly installed stair treads, risers and stringers with construction grade paper, such as Ram Board, to protect material from damage by other trades. Do not slide or drag heavy equipment across the new stair treads. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect stair treads from scuffing and tearing using temporary floor protection.

Ensure all castors that may come in contact with stair treads are clean and free of any and all dirt and debris. Routinely clean castors to ensure that dirt or debris has not built up or become embedded in castors. Replace castors at regular intervals, especially if they become damaged or heavily soiled. Place walk-off mats at outside entrances. Ensure mats are manufactured with non-staining backs to prevent discoloration.

10. WARRANTY

Roppe provides a 3 Year Limited Warranty on all Light Duty Stair Treads and a 5 year limited warranty on all Heavy Duty Stair Treads. For additional information, see associated warranty documents.