



ROP535U "Universal" Urethane Enhanced Epoxy Two-Part Adhesive

Description: Roppe 535U "Universal" Urethane Enhanced Epoxy is a solvent-free, two-component adhesive for high performance installations. ROP535U "Universal" is recommended for indoor installations over properly prepared and recommended concrete, wood underlayments, metal and other non-porous substrates, on grade, below grade, or above grade. ROP535U "Universal" Adhesive must be used for installations in areas where the flooring will be subjected to lateral shear stresses and/or rolling loads, in areas subjected to topical moisture or other liquids, and over metal and some other non-porous substrates, in addition to radiant-heat floors. **Use:** Interior Installation of North Coast Collection, SafeTcork Vinyl Tile, 800 Series Rubber Tile, Spike & Skate, Lug-Back Tile, Rubber Tile, Tuflex Recycled Rubber Tile & Feature Strips, Butting Rubber & Vinyl Stair Treads, Rubber Stair Nosings and Rubber Accessories, Rubber & Vinyl Stair Treads, Stringers and Risers & Subfloor Leveler, depending on substrate and installation type.

Sizes: Adhesive in quart and 1-gallon units. **Color:** Tan when mixed. **Shelf Life:** One year stored at 70° F (21°C) in an unopened container stored at indoor room temperature. **Freeze Thaw Stability:** Although the epoxy components are non-freezing, the adhesive must be allowed to stabilize to ambient temperature before mixing. **Clean-Up:** Any adhesive on the surface of the flooring or surrounding area must be removed immediately with a clean cloth dampened with warm soapy water or denatured alcohol. DO NOT allow the adhesive to cure on the surface of the tile flooring.

Installation Temperature Ranges: The installation area, substrate, flooring, associated material and adhesive are to be maintained between 65°F (19°C) and 85°F (30°C) for at least 48 hours before installation, during installation, and thereafter. Room temperature must be maintained between 65° F (19°C) and 85°F (30°C) thereafter to prevent adhesive failure and to prevent distortion or destruction of flooring. In addition, the subfloors temperature range must also be between 65°F (19°C) and 85°F (30°C) prior to installation, during installation and maintained thereafter. Tuflex Recycled Rubber Tile & Feature Strips- Ice Skating Rinks: ROP535U must be used the first six-feet (6) around the perimeter of ice skating rinks when installing Tuflex. After ROP535U has been applied six-feet around the perimeter, continue installation with ROP535U or ROP635 Moisture-Cured Polyurethane Adhesives. However, do not apply one adhesive directly over the other which will result in a bond failure. The sub-floor temperature range when using ROP535U must be no less than 40°F (5°C).

Calculated VOC's: Roppe 535U "Universal" Solvent Free Urethane Enhanced Epoxy Flooring Adhesive Calculated VOC's according to California Rule #1168: Roppe 535U Part A: 1.3 grams per liter of coating. Roppe 535U Part B: 2.4 grams per liter of coating. ROP535U Part A & Part B Mixed Calculated VOC's: 1.21 grams per liter of coating.

ROP535U Qualifications: Meets CHPS, SCAQMD & CRI Green Label Plus.

Recommended Substrates: Recommended for indoor installations over properly prepared and recommended concrete, wood underlayments, metal and other non-porous substrates, on grade, below grade, or above grade. ROP535U "Universal" Adhesive must be used for installations in areas where the flooring will be subjected to lateral shear stresses and/or rolling loads, in areas subjected to topical moisture or other liquids, and over metal and some other non-porous substrates, in addition to radiant-heat floors. See Individual Product 10-Part Specification Sheet for complete details, cautions and warnings.

Limitations: Do not use outdoors. There is to be no foot traffic until 24 hours after installation. There is to be no wheel conveyances or maintenance performed for at least 72 hours after installation. Do not use to install vinyl stair nosings and vinyl accessories. When installing Rubber & Vinyl Stair Treads and Rubber Stair Nosings, ROPECC (nose filler) must be used in combination with ROP535U. Do not apply ROPECC directly over the adhesive/tape being utilized to install the stair treads. DO NOT mix partial units of this adhesive. Do not use over existing floor-covering. Do not heat weld until at least 24 hours after installation.

Rubber & Vinyl Stair Tread, Stringer, Riser, Rubber Stair Nosings and Rubber Accessories Preparation: Before applying ROP535U or ROPECC Epoxy Caulking Compound, the Rubber & Vinyl stair tread, riser, stringer, rubber stair nosing and rubber accessories entire backing must first be thoroughly cleaned with Acetone (always follow manufacturer's recommendations, cautions and warnings etc.) and a clean white cloth to remove the factory mold release agent applied during the manufacturing process, along with any other contaminants which could interfere with the bonding process. Once cleaned with Acetone, allow

backing to dry completely before applying recommended Roppe Adhesive or ROPECC Epoxy Caulking Compound and then test to ensure a successful bond can be achieved.

Cautions: When installing flooring, either use a kneeling board, or for best results, work off the flooring to avoid shifting, adhesive displacement & adhesive telegraphing. Remove wet adhesive immediately. **Do not** allow adhesive to dry on the flooring, tools or surrounding areas since it may be impossible to remove. **Do not** allow adhesive to dry or skin-over which will result in either none or inadequate adhesive transfer resulting in an installation failure. All flooring must be properly rolled and re-rolled to ensure proper adhesive transfer.

Subfloor/Substrate Inspection and Preparation: All subfloors/substrates must be inspected prior to installation. All substrates must be clean, smooth, permanently dry, flat, and structurally sound. The substrate must be free of moisture, dust, sealers, primers, paint, oxidation, curing compounds, parting agents, residual adhesives, adhesive removers, hardeners, resinous compounds, solvents, wax, oil, grease, asphalt, gypsum compounds, alkaline salts, excessive carbonation or laitance, mold, mildew, any other extraneous coatings, films, materials and all other foreign matter which might interfere/restrict proper adhesive bonding. **DO NOT** use sweeping compounds, solvents, citrus adhesive removers, or acid etching to clean the substrate. **DO NOT** install flooring over gypsum-based or plaster based leveling or patching compounds. **DO NOT** install new floor covering over old floor covering, as the old floor covering may not be adequately bonded, hide possible structural defects, or cause plasticizer migration into the new flooring. In renovation or remodel work, remove all existing* adhesive residue so that 100% of the overall area of the original subfloor/substrate is exposed. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive, and all applicable industry, local, state, and federal standards. Care must be taken to analyze the conditions and correct any problems prior to installation. Follow the manufacturer's recommendations for any patching or underlayment materials, excluding gypsum based or plaster based levelers or patching compounds.

*Some previous manufactured asphaltic "cutback" contained asbestos. For removal instructions, refer to the Resilient Floor Covering Institute's publication "Recommended Work Practices for Removal of Resilient Floor Covering".

Concrete Substrates: Concrete substrates on all Grade Levels must be tested in accordance with ASTM F 1869 **Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride** or ASTM F 2170 **Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs using *in situ* Probes** to quantitatively determine the amount of moisture vapor emission at least one week prior to the installation. **Caution:** ASTM F 1869 or ASTM F 2170 tests cannot predict long-term moisture conditions of concrete slabs. Moisture testing only indicates moisture conditions at the time the tests are performed. Before conducting ASTM F 1869 or ASTM F 2170 test, the installation area must be maintained between for 65° F (19°C) and 85° F (30°C) or at least 48 hours prior to testing, during testing and thereafter. In addition, the concrete's temperature range must also be identical to that of the installation area. Conduct three tests for the first 1,000 sq. ft. and one additional test for each 1,000 sq. ft. or fraction thereof per grade level (on, below or above grade). The Vapor Emission Rate shall not exceed 5.0 lbs and Relative Humidity Test shall not exceed 75% when using the required ROP535U Universal Urethane Enhanced Epoxy Adhesive. If the substrate does not meet the above noted requirements, the flooring shall not be installed until the problem has been corrected. **DO NOT** install flooring if there is hydrostatic pressure.

Wood Subfloors: Wood subfloors to be used as subfloors/substrates are to follow the procedures recommended for Subfloor/Substrate Inspection and Preparation (see above). Wood subfloors should be of double layer construction with a minimum thickness of 1". Crawl spaces underneath wood subfloors shall be in compliance with local building code ventilation practices and have clearance of at least 18" of cross-ventilated space between the ground level and joists. Wood joists should be spaced on no more than 16" centers. Place a moisture retarder; having a maximum rating of 1.0 perm, on the top of the ground under the wood subfloor overlapped at least 8". APA, The Engineered Wood Association, Underlayment Grade plywood, minimum 3/8" thick, with a fully sanded face is to be used. Use APA approved exterior grade plywood if finished floors are subjected to moisture. OSB, lauan, maranti, solid-core mahogany, waferboard, particleboard, chipboard, flakeboard, tempered hardboard, glass mesh mortar units or cementitious tile backer boards, sheathing-grade plywood, preservative-treated plywood, or fire-retardant treated plywood are not recommended as some manufacturers may use resins or other adhesives in the manufacturing of the product that may cause discoloration or staining of the flooring. Wood subfloor movement, flexing or instability will cause the flooring installed to release, buckle or become distorted. **Do not** proceed with the installation until corrective measures have been made. The warranties, performance, installation, and use are the responsibility of the manufacturer and/or contractor. **DO NOT** use plastic or resin filler to patch cracks. **DO NOT** use cement or rosin coated nails or staples or solvent-based construction adhesive to adhere the plywood. Installation on a sleeper, a wood subfloor system constructed over the top of concrete, is not recommended. Installation directly over Sturd-I-Floor panels is not recommended. All wood subfloors, single construction plywood floors, single and/or double tongue-and-groove strip floors, and wood plank floors must be prepared to receive resilient flooring in accordance with federal and industry standards. Follow the recommendations of the APA, The Engineered Wood Association, *Design/Construction Guide, Residential and Commercial*, and ASTM F 1482, *Standard Guide to Wood Underlayment Products Available for Use Under Resilient Flooring*, for the installation and proper construction of the panels to receive resilient flooring. It is the contractor's responsibility to determine if the subfloor is acceptable to receive the flooring.

Metal Floors: Metal floors to be used as subfloors/substrates must be thoroughly cleaned of any residue, oil, paint, sealer, rust, and oxidation and properly sanded/grinded to provide a smooth, level, clean substrate to receive stair treads and flooring. Metal floors and other substrates can only be slightly flexing. **Do not** install over extremely flexing substrates. The flooring must be installed within 12 hours after sanding/grinding to prevent the metal from re-oxidizing. The metal subfloor shall be structurally sound. Deflection of the metal can cause a bond failure between the adhesive and metal substrate. It is the contractor's responsibility to decide the feasibility of the application, and Roppe Corporation will not be held liable for failures caused by flexing or deterioration of metal substrates. **Caution:** The installation of flooring material will not prevent deterioration of metal substrates from occurring.

Cementitious Terrazzo and Ceramic Floors: Cementitious Terrazzo and ceramic floors to be used as subfloors/substrates are to follow the procedures recommended for concrete (see above). Ceramic tile must be solidly adhered and all loose tiles must be removed and repaired or replaced. Ensure all glazed, sealed, smooth, and/or shiny surfaces are properly sanded and cleaned. Fill all grout lines and other irregularities with a manufacturer's recommended Portland cement-based underlayment with a minimum compressive strength of 3500 psi. The subfloor must be structurally sound. Inspect and ensure there is an adequate bond of the old flooring to the original substrate. **Do not** install over epoxy based terrazzo. Cementitious terrazzo must first be sanded to remove all finishes, and then cleaned. Conduct a bond test with adhesive to ensure a successful bond can be achieved before installing. Roppe **will not** warranty the product if there is a bond failure caused by problems relating to the old flooring.

Mixing: Remove the lids and add all of Part B into Part A. Mix the combined parts by hand with the furnished paddle using a rotary motion while at the same time lifting from the bottom. **DO NOT** mix partial units of this adhesive! ROP535U Adhesive is packaged in two separate containers marked Part A (polyurethane epoxy resin) and Part B (polyamide resin, hardener). Mix adhesive by hand or use a slow speed less than 300 RPM maximum, drill with an attached mixing paddle. Mix 3-5 minutes. After mixing, the adhesive must be one consistent solid color. **Caution:** Higher mixing speeds and/or longer mixing time will reduce the open time/working time and can cause premature curing of the adhesive. Adhesive will not cure if not properly mixed. **DO NOT** allow the mixed epoxy adhesive to remain in the container. Immediately after mixing, pour the contents onto the porous substrate and immediately spread the adhesive evenly over smooth substrates using recommended notch trowel.

Application:

- Installation of North Coast Collection, SafeTcork Vinyl Tile, rubber & vinyl stair treads, stringer & risers, rubber & vinyl butting stair treads, rubber stair nosings, rubber accessories, Rubber Tile, 800 Series Rubber Tile, Tuflex Recycled Rubber Tile & Feature Strips over Smooth or Non-Porous Substrates.
 - **Trowel Size:** 1/32" x 1/16" x 1/32" flat "U" notch trowel
 - **Coverage:** Approximately 125-185 square feet (Part A & B Mixed) per US gallon
- Installation of North Coast Collection, SafeTcork Vinyl Tile, rubber & vinyl stair treads, stringer & risers, rubber & vinyl butting stair treads, rubber stair nosings, rubber accessories, Rubber Tile, 800 Series Rubber Tile, Tuflex Recycled Rubber Tile & Feature Strips over Porous or Rough Substrates.
 - **Trowel Size:** 1/16"x 1/16" x 1/16" Square notch trowel
 - **Coverage:** Approximately 100-125 square feet (Part A & B Mixed) per US gallon
 - Trowel Size must also be used when installing Spike/Skate Resistant Rubber Tile & Subfloor Leveler.
- Installation of Lug-Back Tile over Smooth, Rough or Porous Substrates.
 - **Trowel Size:** 1/8" x 1/8" x 1/8" "U"-Notch Trowel.
 - **Coverage:** Approximately 60 - 75 square feet (Part A & B Mixed) per US gallon

Tile Installations: Starting at the center, slowly roll and cross roll with a 100-pound 3-section roller. Re-roll flooring 30 minutes after initial rolling. The rolling time may need to be adjusted to climatic conditions. Use a hand roller in areas that cannot be reached with the larger roller.

Stair Tread/Stair Nosing Installations: Roll and cross roll each tread against the step substrate with a J-type roller within 15 minutes after the tread has been installed. Re-Roll within 30 minutes after installation. **Caution: DO NOT** roll the tread nose. Rolling the tread nose will squeeze out the epoxy nose caulking. The rolling time may need to be adjusted to climatic conditions. **Caution:** If too much adhesive is applied, oozing at seams, air-bubbles, permanent adhesive displacement, and telegraphing may occur when the floor is rolled or exposed to rolling loads resulting in loose and unsightly areas. Therefore, test trowel size and flooring prior to installation to avoid the above noted potential problems. At least 90% transfer to the products backing is required.

Warning: Follow all local, state, and federal standards and practices for the proper removal and disposal of flooring, adhesives, or other materials. Follow all local, state, federal, and manufacturer's safety standards for the use of all products and equipment.

* **Notice:** This document is intended as a general guide only. Therefore, refer to Individual Product 10-Part Specification Sheet for complete details, cautions and warnings.

Rolling: Roll and cross roll each section of tile laid with a 100-pound 3-section roller within 15 minutes after the tile section has been installed. Cross-roll a second time, approximately 30 minutes after initial rolling. Use a hand roller in areas that cannot be reached with the larger roller. If necessary, roll and cross roll again. Periodically, lift the flooring material to check for proper adhesive transfer. There should be at least 90% coverage of adhesive on the back of the flooring material.

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