



## ROP635 Solvent-Free Moisture-Cured Polyurethane Adhesive

**Description:** Roppe 635 Solvent-Free Moisture-Cured Polyurethane Adhesive is a premium one-part adhesive designed for high performance installations of Roppe Tuflex Recycled Rubber Tile, Tuflex Feature Strips & Recoil Fitness Flooring for indoor installations over approved and properly prepared concrete, wood underlayment, metal, Cementitious Terrazzo and Ceramic Floors on grade, below grade, or above grade. ROP635 is required for all outdoor installations of Recoil rolls, square & inter-locking tile over concrete only. ROP635 is required when installing 5/32" (4.00mm) or 1/4" (6.00mm) Inter-Locking Tile indoors to prevent tile from curling. ROP635 is required for all exterior installations of Tuflex Square Tile, Inter-locking Tile & Feature Strips over concrete & highway grade asphalt only.

**Sizes:** Available in 2-gallon & 5-gallon containers.

**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. For ice-skating rinks, follow all instructions and cautions noted "Ice-Rink Section listed below.

**Color:** Tan

**Shelf Life:** Shelf life is six-months at 70° F (21°C) in an unopened container stored at indoor room temperature.

**Freeze Thaw Stability:** The adhesive is freeze/thaw stable to 5 cycles at 0° F (-18°C); however, it is recommended to protect all adhesive products from freezing. If frozen, DO NOT stir until material has completely thawed.

**Clean-Up:** Any adhesive on the surface of the flooring or surrounding area must be removed immediately with a clean cloth dampened with denatured alcohol. DO NOT allow the adhesive to cure on the surface of material or surrounding areas.

**Use:** Interior installations of all Recoil Square Tile and Rolls. ROP635 must be used when installing Interlocking Tile in both in 5/32" (4.00mm) or 1/4" (6.00mm) gauges indoors. Recoil Interlocking Tile in 3/8" (9.00mm) & 1/2" (12.00mm) gauges can be loose laid for interior installations only. ROP635 must be used for all Recoil Rolls, Square & Interlocking Tiles installed outdoors. ROP635 must be used for interior installations of Tuflex Square Tile and Features Strips. ROP635 must be used to install all exterior installations of Tuflex Square Tile, Inter-Locking Tile and Feature Strips. For Ice Skating Arenas (Tuflex Only - Off Ice Areas) installations, refer to "Ice Skating Arenas" direction below.

**Calculated VOC's:** Roppe 635 One-Part Solvent-Free Moisture-Cured Calculated VOC's according to California Rule #1168: 0 calculated grams per liter of coating.

**ROP635 Qualifications:** Meets SCAQMD & LEED.

**Recommended Substrates:** Recommended for interior installations over on, below or above grade porous substrates (concrete), approved wood underlayments, metal, cementitious terrazzo and ceramic floors. Recommended for exterior installations over concrete only. ROP635 is also

recommended for exterior installations of all Tuflex products over concrete and highway grade asphalt. See Individual Product 10-Part Specification Sheet for complete details, cautions and warnings.

**Limitations:** Recommended for the installation of Roppe & Tuflex only. Rain or exposure to moisture within 72 hours after installation may slow the set up time, and may adversely affect the adhesive resulting in an installation failure. Therefore, use extreme caution when installing outdoors. ROP635 must be allowed to "tack-up" approximately 15 minutes before installing flooring. ROP635 is only recommended over concrete for exterior installations, with the exception of installing Tuflex only over highway grade asphalt. Do not use ROP635 within six-feet around the perimeter of ice-skating arenas (off-ice installations). For ice-skating arenas, ROP535U is recommended. The substrates temperature range must be above 40°F (5°C) prior to applying ROP535U. All seams must be taped with 3M Blue Tape/Painter's Tape until adhesive cures. Remove tape prior to exposing to traffic or cleaning. Do not use over existing floor-covering.

**Caution:** There is to be no foot traffic, rolling loads or maintenance performed on the floor for at least 24 hours after installation. Immediately remove excessive wet adhesive with a soft, clean cloth dampened with mineral spirits. **Do not** allow ROP635 to dry on flooring, tools or surrounding areas, since it can not be removed. **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. **Do not** use ROP635 within six-feet around the perimeter of ice-skating arenas (off-ice installations). For ice-skating arenas, ROP535U is recommended. The substrates temperature range must be above 40°F (5°C) prior to applying ROP535U. All seams must be taped with 3M Blue Tape/Painter's Tape until adhesive cures. Remove tape prior to exposing to traffic or cleaning. Do not use over existing floor-covering.

**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 ROP635. A pH test must be performed to test for excessive alkalinity using a pH pencil or litmus paper and deionized water. A scaly, sandy, or powdery surface is an indication of some form of contaminant, usually excessive alkalis or an alkali-silica residue. A pH reading higher than 8 is an indication of a potential problem and the concrete must be neutralized by rinsing with clear water. Apply clear water with a mop and allow to dry. Re-rinse with clear water, allow to dry and retest to ensure pH level is within acceptable range of 5 to 8 on the pH scale. Continue to neutralize until the pH level is acceptable.

**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.

**Highway Grade Asphalt:** The installation of Tuflex is recommended over highway grade asphalt only using ROP635 Moisture-Cured Polyurethane Adhesive only. The surface must be firm and level and free of grease, oil or other contaminants. The trowel size used to apply adhesive must be increased in size and depth in order to fill irregularities inherent with this type of porous substrate. Flooring Installer is responsible for determining correct trowel size to ensure a successful installation. In addition, at least a 90% transfer of adhesive to the tile's backing must be achieved. Any future separation, heaving etc. is the responsibility of the owner.

**Ice Skating Arenas (Tuflex Only - Off Ice Areas):** When installing over approved substrates around the outside perimeter of ice skating rinks, ROP535U Two-Part Urethane Enhance Epoxy Adhesive must be used within six-feet around the perimeter. After installation has been completed around the perimeter, installer has option of either continuing with ROP535U or using ROP635. However, do not spread one adhesive over the other resulting in an adhesive failure. The substrates temperature range must be above 40°F (5°C) prior to applying ROP535U.

**Mixing:** No mixing required.

**Application:** For smooth or non-porous substrates (i.e.: metal, terrazzo & ceramic tile), a 1/16" x 1/16" x 1/16" square notch trowel is required and the approximate coverage is 90-100 square feet per gallon. For installations over porous or rough substrates, a 3/32" x 3/32" x 3/32" "U" notch trowel is required (approx. coverage: 75-80 sq/ft per gallon). Coverage will vary according to the type of surface, surface texture, spreading angle, and adhesive temperature). ROP635 is a moisture cured polyurethane adhesive, therefore, the open time will vary depending on ambient temperature, substrate temperature and relative humidity. Typical working time is approximately 3 hours at 75°F (24°C) and 50% relative humidity. At elevated relative humidity levels, the working time can be shortened. At least 90% transfer to the products backing is required. 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.

**Rolling:** ROP635 must be allowed to "tack-up" approximately 15 minutes and the flooring must be rolled within 20 minutes after applying adhesive with a 100-pound (45 kbs) 3-Section Roller and continuously rolled until the adhesive has dried completely. However, DO NOT allow the adhesive to dry or "skin-over" or extend the "tack-up" time causing very little or no adhesive transfer to the backing of the flooring resulting in an installation failure. Use a hand roller in areas that cannot be reached with the larger roller. Conduct a visual inspection during the rolling process to assure there has been no shifting of the flooring and that there is no adhesive on the surface of the flooring.

**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.

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