



Siena Recycled Rubber Installation

The following recommendations are listed because of their extensive testing and field experience with the Siena Recycled Rubber product. These instructions are given only as guidance to our customers and for use with our recommended tools and adhesives. Siena LLC cannot accept any responsibility for loss or damage that may result from the use of this information due to variations in working conditions and/or workmanship of the installer. Users are advised to conduct their own tests for a particular application and assign installers that are familiar with this type of flooring product.

Installation

I. JOB SITE CONDITIONS

1. Installation should not begin until after all other trades are finished in the area. If the job requires other trades to work in the area after the installation of the floor, the floor should be protected with an appropriate cover. Kraft paper or plastic work well.
2. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65°F (18°C) for 48 hours before, during and after the installation.

II. SUBFLOORS

Siena's recycled rubber flooring; Siena Recycled Rubber, may be installed over concrete, approved Portland-based patching and leveling materials such as Ardex K-15 or equivalent, and wood.

NOTE: Ardex Engineered Cements 400 Ardex Park Drive
Aliquippa, PA 15001
(724) 203-5000

NOTE: Gypsum-based patching and leveling compounds are not acceptable.

1. Wood Subfloors – wood subfloors should be double construction with a minimum thickness of one inch. The floor must be rigid, free from movement with a minimum of 18 inches of well-ventilated air space below.
2. Underlayments – The preferred underlayment panel is American Ply wood Association (APA) underlayment grade plywood, minimum thickness of 1/4', with a fully sanded face.
NOTE: Particleboard, chipboard, Masonite and lauan are not considered to be suitable underlayments.
3. Concrete Floors – Concrete shall have a minimum compressive strength of 3000 psi. New concrete slabs should cure for a minimum of 28 days and meet the relative humidity requirements per ASTM F2710 or the calcium chloride moisture emission test conducted in accordance to ASTM F1869 before installing Siena Recycled Rubber. It must be fully cured and permanently dried. NOTE: Read further for dryness requirements.

III. SUBFLOOR REQUIREMENTS AND PREPARATION

1. Subfloors shall be dry, clean, smooth, level and structurally sound. They should be free of dust, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive residue and other extraneous materials according to ASTM F710.
2. Subfloors should be smooth to prevent irregularities, roughness or other defects from telegraphing through the new flooring. The surface should be flat to the equivalent of 3/16" (4.8 mm) in 10' (3.0 m).
3. Mechanically remove all traces of old adhesives, paint or other debris by scraping, sanding, or scarifying the substrate. Do not use solvents. All high spots shall be ground level and low spots filled with an approved Portland-based patching compound.
4. All saw cuts (control joints); cracks, indentations and other non-moving joints in the concrete must be filled with an approved Portland-based patching compound.



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5. Expansion joints in the concrete are designed to allow for expansion and contraction of the concrete. If a floor covering is installed over an expansion joint, it will likely fail in that area. Use expansion joint covers designed for resilient flooring. NOTE: Expansion joint covers can be obtained from:
Balco, Inc.
2626 South Sheridan
P.O. Box 17249
Wichita, KS 67217
(316) 945-9328
6. Always allow patching materials to dry thoroughly and install according to the manufacturer's instructions. Excessive moisture in patching material may cause bonding problems or a bubbling Reaction with PU350 adhesive.

HAZARDS:

SILICA WARNING – Concrete, floor patching compounds, toppings and leveling compounds can contain free crystalline silica. Cutting, sawing, grinding or drilling can produce respirable crystalline silica (particles 1-10 micrometers). Classified by OSHA as an IA carcinogen, respirable silica is known to cause silicosis and other respiratory diseases. Avoid actions that may cause dust to become airborne. Use local or general ventilation or provide protective equipment to reduce exposure to below the applicable exposure limits.

ASBESTOS WARNING- Resilient flooring, backing, lining felt, paint or asphaltic "cutback" adhesives can contain asbestos fibers. Avoid actions that cause dust to become airborne. Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize. Regulations may require that the material be tested to determine the asbestos content. Consult the document "recommended Work Practices for Removal of Existing Resilient Floor Coverings" available from the Resilient Floor Covering Institute.

LEAD WARNING- Certain paints can contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state and local laws and the publication "Lead Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing" available from the United States Department of Housing and Urban Development.

7. Maximum moisture vapor emission of the concrete must not exceed 5 ½ lbs/1,000 sq ft in a 24 hour period, as measured by the calcium chloride moisture emission test conducted in accordance to ASTM F1869. Alternatively, if the RH method is used, the maximum RH should not exceed 85% RH tested in accordance with ASTM 2710. If the emissions exceed limitations, the installation should not proceed until the problem has been corrected.
8. It is essential that pH tests be taken on all concrete floors. If the pH is greater than 9, it must be neutralized prior to beginning the installation.
9. Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3' x 3' test pieces of the flooring with the recommended adhesive and trowel. Allow to set for 72 hours before attempting to remove. A sufficient amount of force should be require to remove the flooring and, when removed, there should be adhesive residue on the subfloor and on the back of the test pieces. NOTE: This product is suitable for installation over a radiant heat source.



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IV. MATERIAL STORAGE AND HANDLING

1. Material should be delivered to the job site in its original, unopened packaging with all labels intact.
2. Roll material should always be stored laying down. Storing rubber on end will curl the edges resulting in permanent memory of the material. All edges with memory curl must be straight edge cut before installation. Do not store rolls higher than 4 rolls or more than six months. Material should only be stored on a clean, dry, smooth surface.
3. Inspect all materials for visual defects before beginning the installation. No labor claim will be honored on material installed with visual defects. Verify the material delivered is the correct style, color and amount. Any discrepancies must be reported immediately before beginning installations.
4. The material and adhesive must be acclimated at room temperature for a minimum of 24 hours before starting installation.
5. All Siena Recycled Rubber rolls must be unrolled and installed in the same direction. Laying rolls in the opposite direction will cause color variations between the rolls.
 - a. All rolls from factory are rolled on cardboard core. Every core has one side marked with red spray paint. These are always on the left side of the roll as the roll is in a natural state to "Un-roll". Orient all painted sides to one side of the room to maintain roll direction as "top and bottom" of the actual material cannot be marked.
 - b. Issues can arise when rolls are not long enough to span the length or width of the room or a roll is cut and a drop is created at the end of a roll. These drops or cuts often get flipped and rotated when they are used in the floor installation. The installer must take care to keep these oriented in the same direction after they are moved. Care must be taken to make sure rolls are dry laid in the same direction and that all roll drops do not get flipped, or rotated in the wrong direction after they are cut and moved.
6. Roll material is stretched slightly during the manufacturing process. At the job site, the installer should allow all cuts to relax for a minimum of two hours before installing. Shaking the material once it is unrolled can help it to relax.

V. INSTALLATION – ROLL MATERIAL

1. Make the assumption that the walls you are butting against are not straight or square. Using a chalk line, make a starting point for an edge of the flooring to follow.
2. Remove the Siena Recycled Rubber from the shrink-wrap and unroll it onto the floor. Lay the Siena Recycled Rubber on the floor in a way that will use your cuts efficiently. Cut all rolls at the required length, including enough to run up the wall.
3. Allow the cuts to relax in position for a minimum of two hours. 24 hours is preferred.
4. Place the edge of the first roll along the chalk line.
5. Position the second roll with no more than a 1/16" overlap over the first roll at the seam. Work the material back to eliminate the overlap. This procedure will leave tight seams and eliminate any gaps.
6. Repeat for each consecutive roll necessary to complete the area or those rolls that will be installed that day.

METHOD 1 – GLUE DOWN

(4mm and 9mm Rolls)

Note: 9mm is the only approved thickness for both ice rinks and outdoor applications. Please contact Siena LLC (1-888-977-4362) for specific instructions for these applications.



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1. After performing the above procedures, begin the application of the adhesive. We recommend Regupol PU350, a one-component moisture-cured polyurethane adhesive. Regupol PU350 should not be mixed, it is specifically formulated for use right out of the pail. Apply Regupol PU350 to the substrate using a 1/16" square-notched trowel.
2. Fold over the first drop along the wall (half the width of the roll).
3. Spread the adhesive using the proper size square-notched trowel. Take care not to spread more Regupol PU350 than can be covered with flooring within 30 minutes. The open time of the adhesive is 30-40 minutes at 70°F and 50% relative humidity.

NOTE: Temperature and humidity affect the open time of the adhesive. Temperatures above 70°F and/or above 50% relative humidity will cause the adhesive to set up more quickly. Temperatures below 70°F and/or below 50% relative humidity will cause the adhesive to set up more slowly. The installer should monitor the on-site conditions and adjust the open time accordingly.

4. Lay the flooring into the wet adhesive. Do not allow the material to "flop" into place; this may cause air entrapment and bubbles beneath the flooring.
5. Immediately roll the floor with a 100 lb. roller to ensure proper adhesive transfer. Overlap each pass of the roller by 50% of the previous pass to ensure the floor is properly rolled. Roll the width first and then the length.
6. Fold over the second half of the first roll and half of the second roll. Spread the adhesive. Spread the adhesive at right angles to the seam to prevent the adhesive from oozing up through the seam. Roll the flooring.
7. Continue the process for each consecutive drop. Work at a pace so that you are always folding the material back into wet adhesive. NOTE: Never leave adhesive ridges or puddles. They will telegraph through the material.
8. Do not allow Regupol PU350 to cure on your hands or the flooring. Immediately wipe off excess adhesive with a rag dampened with mineral spirits. Cured adhesive is very difficult to remove from hands. We strongly suggest wearing gloves while using Regupol PU350.
9. If some seams are gapping, temporarily hold them together with masking tape. Do not use duct tape as it may leave a residue on the floor. Remove the tape after the adhesive develops a firm set.
10. Keep traffic off the floor for a minimum of 24 hours. Foot traffic and rolling loads can cause permanent indentations in the uncured adhesive.

METHOD 2 – TAPE DOWN

(9mm Roll)

1. Dry lay the rolls onto the subfloor
2. Draw a pencil line beneath all seams to be taped.
3. Use a high-quality double-faced carpet tape with a minimum width of two inches.
4. Fold over the first drop along the chalk line (half the width of the roll). Apply two strips of the double faced tape along the seam, one on each side of the pencil mark.
5. Remove the release paper and place the flooring onto the exposed tape. When butting one roll next to another, overlap the seams by no more than 1/16". Work the material back to eliminate the overlap. This procedure will leave tight seams over the tape and eliminate any gaps.
6. Hand-roll the seams to ensure adequate contact. Do not roll the entire floor.
NOTE: Tape method is not an approved procedure for ice rink applications. . Please contact Siena LLC (1-888-977-4362) for specific instructions for these applications.