

Eco-Sport Tiles Installation Recommendation Instructions & Product Warranty



Upon Delivery of Product

1. Verify packing slip with product and order.
2. Inspect delivered product thoroughly. Report any discrepancies of original order, product defects, etc. No reimbursement/warranty claim will be given for labor on material installed with visual defects. Any defects - size, color, or otherwise - must be reported to Rubber-Cal prior to installation. The Eco-Sport tiles intended for this installation have been shipped to you on pallets with the tiles shrink wrapped and strapped. Once the packing is removed, please inspect the exposed edges for any damage. Next confirm shipment to packing list and notify Rubber-Cal of any damage or shipment discrepancies.
Installation surface should be clean and dry prior to installation. Tiles must be clean and dry prior to installation. Moisture acts as a catalyst to the adhesive, so dry tiles and surfaces are essential.
Temperature variations will also affect the tiles. Tiles will contract in cold weather and expand in warm weather. This is a natural effect of the rubber and is to be expected.
3. Store products and adhesives in a clean, dry environment with temperatures between 70°F and 80°F.
4. Read product and sub-floor preparation instructions, warranty and other disclaimers carefully and completely before beginning any installation.



Warning:

DO NOT use recycled rubber products in conjunction with any petroleum based products. This includes solvents, adhesives or sealants. All substrates (especially new concrete) must be fully cured and properly installed, alkaline vapor emissions tested and found to be at appropriate, prior to installing rubber products.

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I- Recommended Tools

1. Rubber Safety Gloves
2. Non-retractable utility knife w/ extra blades
3. Chalk Line
4. Mineral spirits and rag
5. Carpenter's Square
6. Paint Roller Frames, Roller Extensions and Fluffy Rollers
7. Paint Roller Trays
8. Water Spray Bottles (Mist)
9. Rubber Mallet
10. Measuring Tape
12. Compass with Marker Pen (to mark diameter of equipment supports)
13. Cellophane, masking or packaging tape
14. 2x4 wood block
15. "V" notched trowel 1/8" X 1/8" outdoor installations or
"V" notched trowel 1/16" X 1/16" indoors installations



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II- Adhesive Options

A- Chemrex® CX-941

Description: Chemrex® CX-941 is a one component, polyurethane-based trowel-grade, waterproof structural adhesive with vapor reducing characteristics. Its elastomeric properties enable it to move as it expands and contracts. The patented formula is VOC compliant and it contains no solvents or water. Chemrex® CX-941 provides excellent initial green strength and outstanding bond strength. It is formulated for indoor and outdoor applications.

Chemrex® CX-941 Trowel Grade Polyurethane Adhesive

Polymer Type:	Polyurethane
Yield:	60 square feet per gallon
Packaging:	2 gallon (7.6 L) pails. 5 gallon (18.95 L) pails
Color:	Light brown
Viscosity:	Creamy Trowelable
Working Time:	45-60 Minutes
Freeze-thaw stability:	Unlimited cycles
Service temp:	-40°F to +150°F or -40°C to +66°C
Slab temp:	+50°F to +100°F or +10°C to +38°C
Shelf Life:	1 year when properly stored
Storage:	Store at 75° F (24° C) and 50% relative humidity. Protect unopened containers from heat and direct sunshine. In cool weather, store containers at room temperature for at least 24 hours before using.
Compliance:	ASTM E84-95B: NFPN, class A and UBC, Class1. USDA compliant for use in meat and poultry areas.

For Best Performance

- Wear gloves during application; Chemrex® CX-941 is difficult to remove from skin and clothing. If adhesive gets on skin, immediately wipe it off with a dry cloth.
- Do not apply on frozen surfaces or standing water.
- Avoid contact with water or alcohol before use and before complete cure.
- Do not use in areas subject to hydrostatic head pressure.
- Do not use on wet, contaminated, or friable substrates.
- The maximum acceptable floor variation is 3/16" (4.76 mm) in 10 feet (3 m) or 1/8" (3.75 mm) in 6 feet (1.8 m).
- Do not use as a leveling agent.
- Do not set flooring into an adhesive that has a dry skin.
- Proper application is the responsibility of the user.

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III- Health and Safety

Caution

Chemrex® CX-941 contains methylene bisphenyl diisocyanate; Talc; Hydrotreated light petroleum distillate; Polymethylene polyphenol isocyanate; Silica and crystalline quartz.

Risks

May cause skin and eye irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. Ingestion may cause irritation. Reports have associated repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. Contains crystalline silica. NTP and IARC recognize respirable crystalline silica as a human carcinogen. The exposure to crystalline silica during the normal use of this product will be little or none. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or if used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations. DO NOT take internally. Keep container closed. Empty container may contain hazardous residues. All label warnings must be observed until container is commercially cleaned or reconditioned.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION. Refer to the Chemrex® CX-941 Material Safety Data Sheet (MSDS) for further information.

VOC Content

45 g/L or 0.38 lbs/gal less water and exempt solvents.

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IV- Preparation

Product

Rubber products must reach ambient room temperature to ensure a secure, tight installation with minimal size fluctuation. Each piece should be allowed to relax and set for a full 24 hours prior to installing. This allows the product to relax to size stabilize at the typical room temperature. Inspect the product prior to installation for measurable defects or variations.

Subsurface Preparation

For best installation, any subsurface should be reasonably flat and free of holes or variances of more than 1/8".

1. Ensure that floors are structurally sound and fully cured a minimum of 28 days. Test floor for vapor drive in accordance with anhydrous calcium chloride test. Vapor drive should not exceed the industry standard of less than 3.0 lbs per 1,000 ft² in 24 hours.
2. When test results are greater than 3.0 but less than 12 lbs per 1,000 ft² in 24 hours, refer to the product data sheet for Chemrex® Concrete Floor Primer (Form No. 1019775).
3. Repair concrete and install joint sealants and fillers as necessary. Use patching materials as appropriate.
4. Low spots must be filled with a self-leveling Underlayment or level prep.
5. Mechanical surface profiling is the preferred floor preparation method. It is the only acceptable preparation method where warranties are issued. Acid etching is not recommended. Shotblast the floor to medium-grit sandpaper texture, to remove curing and parting compounds and other surface hardeners and floor coatings.
6. Clean floors of oil, grease, and other bond inhibiting materials not removed by shotblasting or other mechanical means with a commercial degreaser.

A. Concrete

New concrete must be allowed to cure thoroughly prior to installation (28 days). If sealants are used, do not use one with a petroleum base. Old concrete must be repaired and have joint sealants and fillers installed as necessary. All cracks or flaws should be filled in or repaired prior to covering with rubber products. Use patching materials as appropriate. Surface must be thoroughly cleaned of dirt, dust, grease, or other foreign matter by shot-blasting (or other mechanical means) with a commercial degreaser and allowed to dry completely before beginning installation. Any separation of concrete layers, heaving, etc. is the sole responsibility of the installer and/or owner. Assure good drainage of the area by either a well defined gradient of the surface or well placed drainage pipe in lower spots of the area.

B. Wood Base

Wood surfaces should be completely cleaned of dirt, dust, grease or other foreign matter and be completely dry prior to installation. Trapped moisture may rot the wood or interfere with installation adhesives.

Nails or other protrusions should be pounded down or removed, holes repaired, and surface variances repaired within the 1/8" acceptable variance level.

The wooden subsurface should be properly secured to ground to avoid any ground shifting (as by pile or other means) and subsequent sub-floor movement. The sub-floor should be protected and sealed from moisture prior to installation of Eco-Sport tiles. The sealer should be completely dry before installation. The sealer should be compatible with Chemrex® CX-941 before tiles are applied (avoid use of surface treatments that leave oil residues on surface). The surface should be level, clean and dry before application.

C. Asphalt

Asphalt requires the same preparation as concrete. However, due to variations in asphalt substrates, it is the user's

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responsibility to check the adhesion of the cured adhesive on typical test areas at the project before application. Asphalt subsurface must be hard, level, and free of grease, oil, and other contaminants. **Avoid installation on new asphalt until surface oil has had time to dissipate (30 days after compacting)** and drainage can be evaluated.

Any separation of asphalt or blacktop layers, heaving etc. is the sole responsibility of the installer and/or owner.

Insure good drainage of the area by either a well-defined gradient of the surface or well-placed drainage pipe in lower spots of the area.

Eco-Sport tiles may be applied to concrete, asphalt, and wood.

All sub-surfaces should be properly excavated and applied to ensure:

1. Subsurface drainage.
2. Non-separation of concrete layers.
3. Prevention of heaving due to freeze/thaw or unstable ground conditions.



"The stabilization of the subsurface is the sole responsibility of the installer and/or owner."

Subsurface installation should assure good drainage of the area by either a well-defined gradient of the surface or well-placed drainage pipe in lower spots of the installation.

The Eco-Sport tiles shall be adhered to the concrete, asphalt or wood surface using Chemrex® CX-941 following the installation instructions for glue down installations.

V- Eco-Sport Cleaning Instruction

Indoors, sweep, sponge mop or vacuum rubber flooring for everyday maintenance. Outdoors, spraying with a water hose, leaf blower or broom is usually sufficient.

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VI- Installation & Application

1. Ensure that starter rows are firmly in place by wedging or face nailing. Once initial rows are secure, use Chemrex® CX-941 in a wet-lay or walk-on-work method of installation.

2. Wet-lay method: Apply adhesive to substrate with an appropriate trowel. Immediately place flooring into the wet adhesive. No flashing required. NOTE: Do not apply more adhesive than can be covered in 30 minutes or the adhesive transfer could be jeopardized.

3. A 100 lbs. roller must be used in the wet-lay method during all installations. It must be rolled again within 30 minutes. Uneven flooring should be tacked, weighted or rolled to ensure good contact between the flooring and the substrate.

4. Clean up tip: Before troweling Chemrex® CX-941, cover the unused portions of the trowel with duct tape. After troweling, tear off the tape before the material cures.

Surfacing Layout

Lay tiles from the further corner along base edge in two directions. (90 Degrees) Lay out the rest of the installation, leaving out any tiles that must be "cut to fit". Keep edges straight and aligned horizontally and vertically.

Adhesive

Chemrex® CX-941 is a one part "glue" and is ready to use when poured out of container. Do not open container prior to time for use in installation. A misting of water may be applied to the adhesive and will act as a catalyst to decrease cure time.

Adhesive is spread in a thick film coat on the base surface and each gallon will adhere approximately 60 square feet of surfacing.

Indoors

1) Permanent installations should be handled by a trained professional installer with experience in rubber flooring installations. Assume that the walls, and or curbs the tiles are abutting are not perfectly straight or square. Begin by determining the vertical center of the area to be installed. Snap a chalk line. Snap two additional chalk lines 12" out from either side of the original chalk line. (Figure1) This is the guideline for the edges on the first 24" tile.

Figure 1

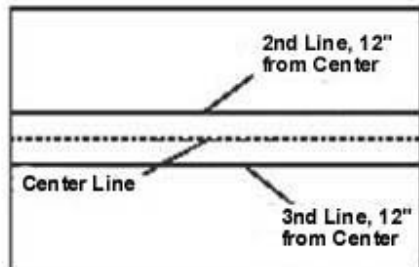


Figure 2

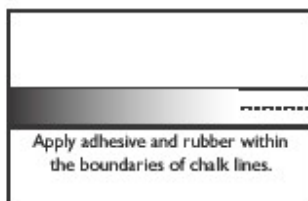
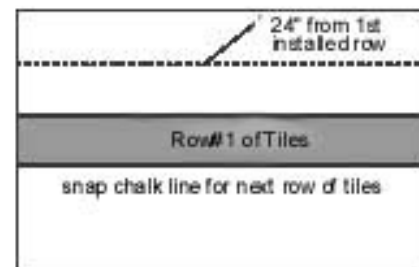


Figure 3



If adhesives are needed:

Apply Chemrex® Adhesive within the 24" marked chalk lines (Figure 2), the length of the room, and/or the length of tiles (24"), whichever ends first. The adhesive should be applied thinly and evenly with 1/8" X 1/8" "V" trowel for outdoor and 1/16" X 1/16" for indoors installations. (Chemrex® adhesive will cover 60 sq. ft. per gallon.) Do not apply more adhesive than can be utilized within a 30 minute window as there is approximately 30 minutes of open air time to apply the adhesive and maneuver the rubber tile onto the adhesive and position prior to curing onset. Wipe off excess adhesive on hands or on equipment with mineral spirits. Gloves are strongly suggested during application, as the Chemrex® adhesive is aggressive on skin. DO NOT allow mineral spirits to come in contact with the rubber tiles.

NOTE: If using adhesive after the first 60 minutes have passed, and the adhesive has begun to set, thoroughly roll the first set of tiles with 50-100 lb. carpet roller to assure bonding of the rubber to the adhesive. Be careful not to shift the roll outside of the chalk lines while rolling. Rolling should be done again at 75 and 90 minutes after the initial placement of the roll onto the adhesive. Rolling should be done both widthwise and lengthwise. This will insure intimate contact and ultimate bond.

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VII- Adhesive Clean-Up Tips

Before troweling with Chemrex CX-941, cover the unused portions of the trowel with duct tape. After troweling, tear off the tape before the material cures. Clean all tools and excess Chemrex® immediately after use with mineral spirits. Use proper precautions when handling solvents. Cured adhesive can be removed by cutting with a mechanical tool. DO NOT allow mineral spirit to come into contact with the rubber.

VIII- Outdoor Installation

Outdoor installations typically require complete adhesion for maximum floor strength. Use the same procedures as in the indoor installation, using the Chemrex® adhesive process. Take note of the outdoor temperature when using adhesive, as it will affect the curing time. In some areas, evening or night installations are best due to extreme heat. Colored products installed outdoors will be subject to harsh UV rays, and as such may discolor.

IX- Rubber Cutting Tips

Tips on cutting rubber. This procedure works best when using a recommended non-retractable utility knife. When using a utility knife, be sure to keep the blades sharp to aid in the cut, and help reduce the possibility of injury due to a dull blade.

- 1) Mark the material you will need to cut with chalk or a chalk line.
- 2) Put your straight edge on the corresponding marks you have placed on the rubber.
- 3) Holding the straight edge firmly in place, score the tiles two or three times**.
- 4) Grab the rubber close to the score line, lift and bend the tile toward you. The score line will "break open."
- 5) Make several more passes with the knife, working down the established cut, until the cut is complete.

**This process may be made easier by cutting the tile on a raised surface such as the 2x4 wood block used during installation. Gravity will depress the cut edge down and away from the cut, and will be less likely to catch the knife blade.

X- Curing Times

Adhesive

Cure time is dependent on temperature and humidity. Times are based on 75° F (57° C) and 50% relative humidity.

Firm set: 1 – 2 hours

Light foot traffic: 12 – 24 hours

Normal traffic: 48 hours

Higher temperatures and humidity shorten the cure rate, while lower temperatures and humidity lengthen the time.

Non-Adhesive (Plastic Pins) :

Normal traffic Immediate

XI- Installation of 1" Eco-Sport Tiles with Connector Pins

The 1" Eco-Sport Tiles can be installed using either adhesive (see instructions for installing Eco-Sport with adhesive above), or by using the Connector Pins offered by Rubber-Cal. The Connector Pins are 3" long, made of hard black plastic with ferruled edges, which hold them in place inside the tile once they have been inserted.

The 1" Eco-Sport Tiles has three (3) holes on each of the four (4) sides of the tile and this results in figuring six (6) Connector Pins per tile when you figure how many will be required.

To install your tiles with these Connector Pins, it is easiest to insert the pins on two adjacent sides while they are sitting in a stack (before you put them on the ground). Then when you set them on the ground you will line up the tile with pins already in it to the adjacent tile without pins. Insert the pins into the holes and push it in to close the gap as best possible.

To seal the gap, use a rubber mallet to "bang" or "push" the tile (without the pin) in over the tile with the pin. You hit the tile at an angle a few times while trying not to hit the tile itself in the exact same spot (if you use a "normal" hammer and hit the same spot more than once, you may damage the rubber tile with a "dent").

The 1" Ramp (48"x 4") has four (4) holes in it, is designed to line with the tile and install together with the tile in the same fashion.

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XII- Disclaimer

The installation guidelines represent a typical installation and generally accepted installation practices should be followed. Use of a trained installation professional is recommended for best results.

Rubber-Cal does not warrant any installation work and specifically disclaims liability for any direct or indirect personal injury, property damage or other costs or losses resulting from incorrect or inadequate installations.

XIII- Product Warranty

Three Year Warranty

Rubber-Cal, Inc. offers the following limited warranty on all sheet rubber, flooring and matting products for a period of three years from date of sale to the original purchaser of our products.

1. The product will comply with the technical specifications and be fit for those applications as set forth in the manufacturer's published technical and promotional materials at the time of sale. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.
2. The product will be free of defects in materials and workmanship (subject to the limitations set forth below) for a period of three years from the date of purchase from the manufacturer. This warranty is limited to the repair or replacement of products which are shown to be defective during the Warranty Period. The owner/end-user agrees not to advance any claim for any other measure of damage or loss. Rubber-Cal, Inc. shall not be liable for installation, disassembly, removal, disposal, return shipping, or other similar costs. THIS WARRANTY DOES NOT COVER DISSATISFACTION OR PROBLEMS OR OTHER DAMAGE TO THE MATERIALS AS DESCRIBED IN THE MANUFACTURER WARRANTY STATEMENT.
3. This warranty does not extend to:
 - a. Products which have been improperly installed.
 - b. Products installed over improperly prepared sub-surfaces or preparation of sub-base not specifically approved by manufacturer.
 - c. Normal wear and tear of products.
 - d. The surface appearance of the product or color inconsistency.
 - e. Products subject to misuse, abuse, neglect, chemical cleaning, adhesives not recommended for use, or contact not specifically approved by manufacturer.
 - f. Products which have been altered, modified, fabricated, or amended in any way.
 - g. Cracking, warping, soiling, fading, improper maintenance or abuse caused during the service life and items such as roller skates, golf shoes, pets, cleat, weight and exercise equipment, etc.
4. Manufacturer's sole liability under this limited warranty shall be the repair or replacement, excluding installation and other costs, at its option, of product strictly according to the procedures set forth below. The implied warranties

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of merchantability and fitness for a particular purpose are hereby specifically disclaimed. In no event shall manufacturer be liable for any special, indirect or consequential damages, whether arising out of contract, tort or any theory of law.

Rubber-Cal, Inc. shall not be liable for any damage, loss or claim whatsoever unless the material is installed and used according to the written instructions provided by Rubber-Cal, Inc. and used only as intended by Rubber-Cal, Inc.

5. To exercise this limited warranty, manufacturer must be notified within fifteen days of any occurrence giving rise to claim and prior to installation, given opportunity to inspect the product, and have issued direction to the original purchaser respecting disposition of product to be replaced under this limited warranty. Purchaser shall comply with all reasonable requests of manufacturer in the administration of any warranty claim. Non-compliance with installation instructions and maintenance guidelines as recommended by Rubber-Cal, Inc. Manufacturer cannot assume responsibility for the suitability of flooring and rubber sheet material and accompanying products for each individual installation, use, and application. As manufacturer has no control over the installer's proper application. Should an individual piece be doubtful as to appearance or dimension, the installer should not use the piece in question. Such damage is not covered.
6. NO AGENT OR REPRESENTATIVE OF RUBBER-CAL, INC. HAS ANY EXPRESS OR IMPLIED AUTHORITY TO MAKE ANY REPRESENTATION, PROMISE OR GUARANTEE NOT STATED HEREIN.
7. Exposure to UV light and sunlight will cause color variation to rubber products.
8. No returns will be accepted without written authorization from Rubber-Cal, Inc. Failure to comply with the above constitutes a waiver of your claim.
9. Rubber-Cal, inc. will at its option either repair or replace from current inventory of available products the defective flooring and or rubber sheet, provided the defect is not the result of misuse, accident, abuse or alteration and provided further that the product is used in the manner specifically set forth in literature describing the product which is issued or provided by Rubber-Cal, Inc.

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