



## SHEET INSTALLATION INSTRUCTIONS

*Using EXPANKO XCR4 ADHESIVE-or-HENRY452 (2-PART EPOXY)*

**TECHNICAL SUPPORT 800.345.6202**

### **A. INTRODUCTION**

XCR4 flooring, a unique blend of cork and rubber, is a natural product with shade variations. These shade variations are a result of the recycled cork content. It is the responsibility of the installer to blend shades. **INSTALLATION DEEMS ACCEPTANCE OF SHADE VARIATIONS.**

Stiletto heels, certain furniture and appliance footings may cause indentations in XCR4. As with all resilient flooring, complete recovery should not be expected. Use recommended glides of at least 1 1/4" in diameter on all furniture and use chair mats under chairs at desks and workstations. Do not move heavy furniture, fixtures or appliances directly across the floor. Use protective boards or other furniture moving equipment that will protect the floor. Do not use XCR4 in areas where cooking oils, vegetable fats, oil or grease may be spilled or tracked on to the surface.

### **B. SITE CONDITIONS**

1. Store / acclimate the flooring and adhesive in the installation area for 72 hours.
2. Installation area temperature must be maintained between 65°F and 75°F for 72 hours before, during and after installation.
3. Unstack flooring 24 hours prior to installation.
4. During unpacking and installation flooring, may appear to have an inconsistent gloss appearance. This effect is a result of the manufacturing and packaging process and will be removed during the initial maintenance procedure.
5. Before installation do not place flooring in direct sunlight (windows or doors) for extended periods of time, as it could create shading.
6. The permanent HVAC (heating, ventilation and air conditioning) system shall be in operation for at least one week prior to the floor installation. Do not use portable heaters.

### **C. MOISTURE TESTING**

1. Follow ASTM F 710 "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring". This includes determining Moisture Levels, Relative Humidity and pH Levels, as per the ASTM specifications listed below:
  - a) ASTM F 1869, Anhydrous Calcium Chloride test for Moisture levels. The maximum allowable readings are: 3 lbs/1,000 sq. ft/24 hours

- b) ASTM F 2170, Relative Humidity (RH) test using in situ probes. The maximum allowable reading is 75% RH.
  - c) ASTM F 710, pH levels (test procedure 5.3.1). The readings should be between 8 and 10.
2. The ASTM test frequency recommendation is 3 measures for the first 1,000 sq. ft. and one measure for each additional 1,000 sq. ft.
3. Ensure Moisture, Relative Humidity and pH tests have all been conducted and measures meet manufacturer's recommendations. Record all test results for reference.
4. For all grade installations (on, above or below), it is the flooring contractor's responsibility to ascertain that there is not too much moisture in the concrete and that it will not increase at a future date above the recommended levels. Expanko will not be responsible for hydrostatic pressure that may occur in the future.

## **SUBFLOOR PREPARATION**

1. Porous Surfaces: construction-grade plywood, cementitious underlayments, dry concrete that is above, on or below grade. Refer to ASTM F 1482 "Standard Practice for Installation and Preparation of Panel-Type Underlayment to Receive Resilient Flooring" for general guidelines for porous-type surface preparation.
2. Non-Porous Surfaces: terrazzo, ceramic tile, metal, existing fully adhered non-cushion backed resilient on all grade levels except existing tile below grade. Refer to ASTM F 710 for general guidelines.
3. Concrete subfloor must be smooth and flat. Imperfections in the subfloor may show through the finished flooring. All cracks, voids and undulations must be repaired prior to flooring installation; with high strength Portland cement based patching material. Refer to WWHenry / Ardex for product recommendations and installation methods, [www.ardex.com](http://www.ardex.com). Expanko only recommends Ardex Products.
4. Saw cuts must be cleaned carefully, and flooring must not be installed over expansion joints.
5. All surfaces must be clean, dry and free of dust, grease, paint, oil sealers and curing compounds or any other foreign material that may interfere with proper adhesion.
6. Do not use chemical adhesive removal products (chemical abatement products): their use will void the Expanko adhesive system warranty.
7. For detailed instructions, refer to the Resilient Flooring Pre Installation Guidelines document #010 available on our Web site at [www.expanko.com](http://www.expanko.com)

## **ADHESIVE SYSTEMS**

1. The use of the proper adhesive is critical to a successful end result. Expanko will only guarantee its flooring products if Expanko XCR4 Trowel-on and Henry 452 (2-part epoxy) adhesives are used.
2. Expanko XCR4 Trowel-on adhesive is a wet-set adhesive for general use; for demanding applications such as heavy rolling load traffic, Henry 452 (2-part epoxy) must be used.
3. Protect from freezing in transit and storage.
4. Kneepads should be used during installation and effort should be made to work off the flooring whenever possible.
5. Clean excess adhesive immediately using soapy water, ethyl alcohol or isopropyl alcohol.
6. Do not reuse container. Dispose of container and adhesive in accordance with federal, provincial/state and local waste disposal regulations.

7. Contact Expanko directly or the local Expanko Agents or Distributor for additional information.

#### **EXPANKO XCR4 TROWEL-ON ADHESIVE**

1. Expanko XCR4 Trowel-on is a wet-set adhesive; it is off-white with a syrupy consistency. 1/16"D X 1/32"W X 1/32"A, U Notch Trowel should be used.
2. Coverage: up to 150 sq ft per gallon.
3. Roll the flooring in both directions prior to adhesive hardening with a 75-100 lb. sectional roller.
4. We recommend the following guidelines for traffic:
  - No traffic for 12 hours
  - Light foot traffic between 12 and 72 hours
  - Moderate to heavy traffic after 72 hours.

#### **HENRY 452 2 PART EPOXY ADHESIVE**

1. Henry 452 adhesive is a two-part epoxy-based adhesive that is beige when mixed.
2. A very strong bond is created when applied to porous and non-porous surfaces.
3. Remove the lid of part A and stir using a mechanical mixer. Remove the lid of part B and pour all the contents into the container of part A. Use a rubber spatula to remove everything from the container. Use a mechanical mixer to ensure proper blending, as inadequate mixing could cause bond failure.
4. Pour the entire adhesive onto the floor immediately after mixing. Do not leave the mixed adhesive in the original can; the heat generated by the chemical reaction will reduce the open time of the adhesive.
5. **Porous and non-porous surfaces:** Spread adhesive with a 1/32"D x 1/16"W x 5/64"A U-notched trowel on surfaces.
6. Coverage: up to 250 sq. ft. /gal.
7. Curing time will vary depending on site conditions (i.e. temperature, humidity). It is still workable if it is wet and sticks to the fingers when touched. If a dry skin has formed on the surface of the adhesive, remove the adhesive and start over.
8. The floor must be rolled in both directions prior to adhesive hardening with a (75-100 lb.) sectional roller. Rolling must be done within 30 minutes of laying the flooring; roll again 2 to 3 hours later.
9. We recommend the following guidelines for traffic:
  - First 12 hours: no traffic;
  - 12 -72 hours: light traffic only;
  - 72 hours: moderate to heavy foot traffic, placement of furniture and light rolling traffic;
  - After 7 days: regular rolling traffic.

#### **D. PRODUCTION ACCLIMATION**

1. Acclimate adhesives and flooring at the installation site, in the area they are to be installed, for at least 72 hours (3 days) prior to installation. Temperature during acclimation period and installation shall be maintained between 65°F and 75°F and relative humidity shall be between 45% and 65%.
2. The permanent HVAC (heating, ventilation and air conditioning) system shall be in operation for at least one week prior to the floor installation. Do not use portable heaters.

## E. INSTALLATION GUIDELINES

1. Measure the area and cut the required amount from the roll of Expanko XCR4 Cork/Rubber Sheet. When piecing along a wall, cut approximately 2-3" extra to run up the wall.
2. Lay it on the floor and center it.
3. Push the first sheet against the wall and scribe the shape of the wall ½" into the roll.
4. Using a sharp hooked knife, trim the excess scribed material from the piece.
5. Position the trimmed piece against the wall and trim ½" from the opposite (salvage) edge using an edge trimmer or sharp knife and steel edge ruler.
6. Cut the next length.
7. Position the second length ½" to 1" over the wall length at the seam and trim off ½" from the salvage edge.
8. Repeat this procedure until there are enough pieces to install in a day.  
**Note: Roll Expanko XCR4 Cork/Rubber Sheet Rubber with the finished surface exposed. If the cut rolls must be re-rolled, the top must be visible.**
9. Use a blue chalk line to snap a line indicating the area where the adhesive is to be spread.
10. Spread the adhesive on the area under the first length of rubber. Follow the application instructions outlined in the Adhesive Systems section. Do not spread the adhesive outside the chalk line.
11. Lay the first length of Expanko XCR4 flooring on the wet adhesive and roll to eliminate air bubbles.
12. Roll in both directions with a 150-lb sectional roller.
13. Repeat steps 9, 10, 11 and 12.
14. After rolling the second length, scribe the overlap and trim with a sharp knife and roll edges using a hand roller.
15. Repeat this process for the remainder of the installation.
16. Allow the adhesive to cure.

## HEAT WELDING

1. After installation, ensure that the adhesive is fully cured. Set the depth of the mechanical groover to 2/3 of the material's gauge. Test this on a piece of scrap material. If a hand grooving tool is being used, ensure that the depth is kept consistent and the blade sharp.
2. Groove all seams with a mechanical groover. Hand groove areas that are hard to reach, such as close to the walls. A grooving tool with a guide is recommended.
3. Clean all grooves and the general area of dust and debris.
4. Preheat a variable heat-welding gun to the correct temperature. We recommend that you practice welding on a scrap piece that has been grooved.
5. Cut a length of XCR4 Rubber Weld welding rod sufficient to weld the required length plus 12" extra.
6. Weld the seam next to the wall. Apply slight pressure to the gun to help force the melted rod into the groove. Adjust the application speed as required.
7. Do not start to trim the excess welding rod until it is completely cool.
8. Apply a mixture of one-part liquid soap and ten parts water to the welding rod and 1" either side of the flooring to help lubricate the trim plate when trimming.
9. Use a trim plate and a sharp crescent knife to remove the excess welding rod. Make the finishing trim using only the crescent knife.
10. Clean the area with a brush or vacuum.
11. Keep all traffic off the floor.

## **FLASH COVE INSTALLATION**

1. Before proceeding, make sure the subfloor and wall are suitably prepared for the flooring installation.
2. Install the cove cap to the wall at the required height from the floor. Depending on the cap system, this can be either installed with adhesive or nails/staples.
3. Use either a pattern form or template to cut the inside and outside corner of the wall section pieces of rolled rubber.
4. Apply the adhesive(s) to both the wall and subfloor.
5. Lay the flooring onto the adhesive and form the cove at the wall intersection. Make sure no air is trapped between the rolled rubber and the adhesive.
6. Press the flooring into the cove cap.
7. Roll the entire floor with a 150-lb. section roller. Use a hand roller for the cove section.
8. Make any final trims and adjustments to the cove and corners then roll again.
9. The seams and edges of the inside and outside corners can be sealed using one of the following methods: heat welding, or Color Rite caulking system.

## **COLOR RITE CAULKING SEALER SYSTEM**

1. Color Rite caulking sealing system is designed to seal and finish the seams and edges of rolled rubber to create a finished appearance.
2. Color Rite is available in a squeezable tube and therefore does not require a special applicator.
3. It will not stain or change the color or surface appearance of rolled rubber. Color Rite is light when applied but darkens as it dries. A second application may be necessary if the gaps or spaces are abnormal in width and depth, or if excess material was wiped out before cured, causing gapes.
4. After the adhesive has cured, you can seal the seams and edges with Color Rite caulking.
5. Make sure that the edges of the rubber are clean, dry and free from adhesive residue. Joint size should not exceed 3/8" x 3/8".
6. Cut the nozzle of the tube to the required size.
7. Starting at the base of the cove on the inside/outside corner, squeeze the tube to apply a bead of Color Rite to the seam. Note: Put masking tape on both sides of the joint to stop it from smearing onto the rolled rubber. This will speed clean up.
8. Use a smooth spreader or finger to smooth the Color Rite as desired.
9. Clean excess sealer from the flooring immediately.
10. Allow the Color Rite to dry. Curing time is approximately 1 hour, depending on site conditions.
11. Clean all tools using warm water before the sealer cures.
12. Color Rite caulking can be obtained directly from Color Rite customer service. Call: 405-354-3644.

## **FLOOR PROTECTION AND INITIAL MAINTENANCE**

1. Following installation and cleanup of the tile protect it by laying sheets of brown Kraft paper over the flooring and then a layer of plywood sheets. Leave until the work of all other trades has been completed.
2. Do not start any maintenance procedures for a minimum of five (5) days after installation.
3. Do not, at any time during the initial maintenance or thereafter, flood the floor with water or maintenance solutions.

**WARNING: REMOVAL OF OLD FLOORING**

Do not sand, dry sweep, dry scrape, drill, saw, bead blast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, paint, asphaltic cutback adhesives or other adhesives. These products may contain asbestos fibres or crystalline silica. Avoid creating dust as inhalation increases the risk of cancer and respiratory disease. Smokers exposed to asbestos fibres are at greater risk of serious bodily harm. Unless certain that the product is asbestos-free, assume that it contains asbestos. Regulations may require that material be tested to determine asbestos content. Consult the Resilient Floor Covering Institute's (RFCI's) recommendations for removal of existing resilient floor coverings.

Pre-Installation Guidelines (Document ID: 010) and XCR4 Care and Maintenance Instructions (Document D: 211) sited are available at [www.expanko.com](http://www.expanko.com).

For more information visit [www.expanko.com](http://www.expanko.com) or call 800-345-6202.