DURA CRETE

INSTALLATION MANUAL

Distributed in the U.S.A. by:

Summit International Flooring

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Check website for updates.

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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 works 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

DURA CRETE 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 and free from movement with a minimum of 18 inches of well-ventilated air space below.
2. Underlayments – The preferred underlayment panel is American Plywood Association (APA) underlayment grade plywood, minimum thickness of 1/4-inch, with a fully sanded face.
3. Plywood Subfloors and underlayments must be American Plywood Association (APA) approved. Plywood shall not have any treatments added. (For example – fire retardant) The moisture content of the plywood may not exceed 12%.
4. Concrete Floors – Concrete shall have a minimum compressive strength of 3000 psi. New concreteslabs should cure for a minimum of 28 days before installing DURA CRETE. Concrete must be fully cured and permanently dry.

NOTE: Particleboard, chipboard, Masonite, and lauan are not considered to be suitable underlayments.

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
Witchita, 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 the 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 5.5 lbs. per 1000 sq.ft. in a 24 hour period as measured by the calcium chloride moisture emission test conducted in accordance to ASTM F1869. Moisture can also be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If levels are high using either test method, then one of Summit International Flooring's recommended vapor retardants must be used. If the emissions exceed the limitations, the installation should not proceed until the situation has been corrected.

NOTE: For moisture remediation, Summit International Flooring recommends the following two vapor retardant products.

1. **ARDEX MC Rapid, Plus or Ultra - 724-203-5000, www.ardex.com**
2. **Bostik Durabond D-250 - 888-592-8558, www.bostik-us.com**

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 required to remove the flooring and, when removed, there should be adhesive residue on the subfloor and on the back of the test pieces.

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 on end. Storing DURA CRETE laying down may cause welting, which causes permanent memory of the material. Rolls 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 installation.**
4. The material and adhesive must be acclimated at room temperature for a minimum of 48 hours before starting installation.
5. **All DURA CRETE rolls must be unrolled and installed in the same direction. Laying rolls in the opposite direction can cause color variations between the rolls.**

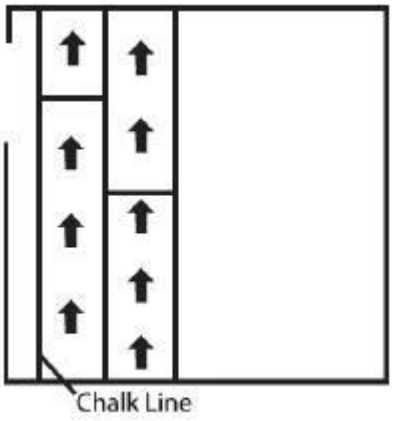

Diagram 1

6. Lay the rolls to provide as few seams as possible with economical use of materials. Match edges for color shading and pattern at seams. Be prepared to straight edge cut the side seams to ensure pattern consistency.
7. For best results, the installer should unroll all rolls and allow to relax overnight.

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V. INSTALLATION – DURA CRETE 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. The chalk line should be set where the first seam will be located.

2. Remove the DURA CRETE from the shrink wrap and unroll it onto the floor. Lay the vinyl 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 a couple inches.

3. If end seams are necessary, they should be staggered on the floor and overlapped approximately 2". End seams will be trimmed **after acclimation period** using a square to ensure they fit tightly without gaps. Match and cut seams to maintain overall continuity of color and pattern.

4. After allowing proper acclimation and rough cuts are made you may begin the installation.

5. Align the first edge to the chalk line.
   Note: ***it is very important that the first seam is perfectly straight.***

6. Position the second roll with appropriate overlap required to maintain board pattern consistency. After seams are trimmed, the edges should fit snug with no visual gaps. Care should be taken to not over compress the seam. Over compressed seams will cause peaking.

7. Repeat for each consecutive sheet necessary to complete the area or those rolls that will be installed that day.

INSTALLATION – GLUE DOWN DURA CRETE Rolls

a. After performing the above procedures, begin the application of the adhesive. We recommend SIF 848. SIF 848 should not be mixed. It is specially formulated for use right out of the pail. Apply SIF 848 e substrate using a 1/16˝square- notched trowel.
b. Fold over the first drop along the wall (half the width of the roll). Rolls are 6 feet wide and 30 feet long. When roll is folded over this will leave an exposed area of substrate that is 3 feet wide and 30 feet long.
c. Spread the adhesive using the proper size square-notched trowel. Take care not to spread more I 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 relative humidity above 50% will cause the adhesive to set up more quickly. Temperatures below 70°F and/or relative humidity below 50% will cause the adhesive to set up more slowly. The installer should monitor the on-site conditions and adjust the open time accordingly.

d. 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.

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e. Immediately roll the floor with a 75–100 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.
f. Fold over the second half of the first roll and half the width of the second roll. Taking roll sizes into account, this will provide an exposed area of substrate of 6 feet wide and 30 feet in length per roll. Spread the adhesive, roll the flooring, and repeat for each consecutive drop.
g. Continue the process for each consecutive drop. Work at a pace so that you are always folding material back into wet adhesive bed.

NOTE: Never leave adhesive ridges or puddles. They will telegraph through the material.

h. Do not allow SIF 848 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 SIF 848
i. Hand roll all seams after the entire floor has been rolled.
j. Keep traffic off the floor for a minimum of 24 hours. Floor should be free from rolling loads for a minimum of 48-72 hours.

INSTALLATION – Welding DURA CRETE Rolls

k. a. Prepare seams in vinyl sheet flooring with manufactures special routing tool and heat weld with vinyl thread in accordance with manufactures instructions.