

INSTALLATION INSTRUCTIONS

GENERAL INFORMATION

DuraStone is installed with Congoleum AD-01 Premium HPF Adhesive using standard tile installation procedures.

Proper storage and handling is critical to ensure tiles do not become distorted prior to installation. Always store and transport cartons on a flat surface stacked no more than 10 cartons high. A slight pillowed affect with edges turning downward is normal.

The importance of proper temperature at the time of installation cannot be over-emphasized. Do not install at a temperature higher than 85°F (29.4°C). The subfloor, all flooring material, and adhesive must be conditioned at a constant temperature between 68°F (20°C) and 85°F (29.4°C) for 48 hours prior to, during, and 48 hours after installation. Thereafter, maintain a room temperature between 55°F (13°C) and 100°F (38°C). NOTE: Exposure to extreme temperature variations can cause thermal expansion or contraction resulting in edge curl or gaps between tile.

When installing tile from two or more cartons, check the code on the side of the cartons to ensure that the pattern and run numbers are the same. Mix tiles from several cartons to achieve the best appearance. When arrows are printed on the back of each tile, install tile with arrows pointed in the same direction unless specifically instructed otherwise on a separate insert found in the carton. Perimeter grout lines will vary in width from tile to tile. This variation has been designed into the floor to create a more realistic visual of a hand-set tile.

TOOLS AND MATERIALS

- Congoleum AD-01 Premium HPF Adhesive
- Notched trowel (1/16" wide, 1/32" deep, 1/32" apart)
- 100-pound, three-section, steel roller
- 18" tile cutter - optional

SUBFLOOR REQUIREMENTS

DuraStone may be installed over dry concrete on all grade levels, suspended wood floors and qualifying old, smooth, resilient floors that are fully adhered and securely bonded.

Deviations in the flatness of the subfloor cannot exceed 1/16" in 1' or 3/16" in 10'. This is particularly important when installing over a cold concrete subfloor since the tile will be stiffer at low temperatures.

All surface imperfections should be leveled with a portland cement-based latex patching compound or underlayment. The use of gypsum-based latex patching compound or underlayment is not recommended by Congoleum and may result in bond failure.

NOTE: The use of a high-quality latex primer that is specifically designed to improve adhesion may be used over wood, porous concrete and patching compounds. The primer will help to seal the surface and tie down dust that can interfere with the adhesive bond.

Concrete subfloors must be clean, dry, and free of paint, efflorescence, curing, hardening and parting compounds, sealers, and old adhesive residue. Congoleum does not recommend the installation of DuraStone where excessive moisture, vapor emissions, hydrostatic pressure or alkali conditions exist. Installation failures resulting from these conditions are not warranted by Congoleum.

Wood subfloors must be structurally sound and free of movement with at least 18" of well-

ventilated air space below. Single layer floors and stripwood floors must be covered with a 1/4" or heavier underlayment to achieve a total subfloor thickness of 1". Single layer stripwood floors should be covered with a minimum 3/8" underlayment.

Approved underlayments include APA Rated Underlayment grade plywood (specify "Fully Sanded Face"), APA C-C Plugged Exterior grade plywood, lauan plywood Type 1 Grade BB (5.2 mm minimum thickness). Other underlayments panels may be suitable for use. Consult your supplier for recommendations and warranty information prior to performing the installation. Fasten underlayment with 1 1/4" ring-shank nails or approved divergent staples, spaced as follows:

Underlayment Thicknesses	Interior	Along Edges
1/4"	4"	2"
3/8"	6"	3"

Sand underlayment joints level and fill gaps wider than 1/32".

EXISTING RESILIENT FLOORS

WARNING - DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUT-BACK" ADHESIVE, OR OTHER ADHESIVE. THESE PRODUCTS MAY CONTAIN ASBESTOS FIBERS AND/OR CRYSTALLINE SILICA. AVOID CREATING DUST. INHALATION OF SUCH DUST IS A CANCER AND RESPIRATORY TRACT HAZARD. SMOKING BY INDIVIDUALS EXPOSED TO ASBESTOS FIBERS GREATLY INCREASES THE RISK OF SERIOUS BODILY HARM. UNLESS POSITIVELY CERTAIN THAT THE PRODUCT IS A NON-ASBESTOS CONTAINING MATERIAL, YOU MUST PRESUME IT CONTAINS ASBESTOS. REGULATIONS MAY REQUIRE THAT THE MATERIAL BE TESTED TO DETERMINE ASBESTOS CONTENT AND MAY GOVERN THE REMOVAL AND DISPOSAL OF MATERIAL. WHENEVER POSSIBLE, EXISTING FLOORING SHOULD BE LEFT IN PLACE AND THE NEW FLOOR INSTALLED OVER THE TOP. IF YOU MUST REMOVE OLD FLOORING MATERIAL, CONTACT YOUR RETAILER OR CONGOLEUM CORPORATION INSTALLATION DEPARTMENT, P.O. BOX 3127, MERCERVILLE, NJ 08619, FOR A COPY OF RECOMMENDED WORK PRACTICES. THESE PRACTICES SHOULD BE FOLLOWED.

Various federal, state and local government agencies have regulations covering the removal of in-place asbestos containing material. If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable regulations. Regulations outside the United States may vary.

Copies of the Resilient Floor Covering Institute (RFCI) Recommended Work Practices for the Removal of Resilient Floor Coverings are available from:

Congoleum Corporation
Installation Department
P.O. Box 3127
Mercerville, NJ 08619

or
Resilient Floor Covering Institute
401 East Jefferson Street
Suite 102
Rockville, MD 20850

Please note that the RFCI Recommended Work Practices are subject to change as new practices are incorporated. It is your responsibility to determine that the recommended work practices you use are those in effect.

Whenever possible, it is desirable to leave the old flooring in place with the last alternative being removal. Suitable old, resilient floors should be smooth, non-cushioned, single layer, fully adhered, securely bonded, and in good condition. All floor polish, wax, and finish should be stripped with a liquid stripping solution following label instructions.

In residential applications, DuraStone can be installed over embossed non-cushioned and thin cushioned vinyl flooring that is covered with wood underlayment (provided the subfloor is suspended wood) or prepared with a latex-modified portland cement-based embossing leveler.

Do not install over soft, heavy cushioned floors, tile installed on concrete below grade level, or existing self-adhered flooring.

FLOOR LAYOUT

To start the layout, place a mark in the center of the floor at each end of the room. Then connect the marks by snapping a chalk line down the center of the room.

Next divide the room into equal quadrants. To do this, locate the center point of the chalk line and snap a perpendicular line, using the 3-4-5 method or a carpenter square as a guide (Figure 1).

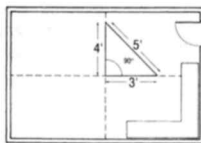


Figure 1 - Room layout.

Make a dry layout in one quadrant along the center and perpendicular chalk lines. Measure the distance between the last whole tile and the wall. If the distance in either row is less than half a tile, adjust the starting point and snap a new chalk line one-half the dimension of a full tile (8") away from the original chalk line (Figure 2). This will provide a balanced layout with larger cut tile around the perimeter.

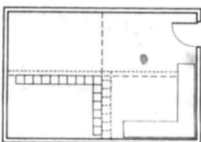


Figure 2 - Adjusting lines.

ADHESIVE APPLICATION

AD-01 Adhesive is required for installing Congoleum DuraStone over all approved subfloor surfaces. Spread the adhesive over one-half of the subfloor and a few inches beyond the chalk line with a notched trowel. The recommended notch size, 1/16" wide, 1/32" deep, 1/32" apart must be used (Figure 3). Periodically check the trowel for notch wear.



Figure 3 - Notched trowel.

Allow the adhesive to dry (approximately 30 to 60 minutes) before installing tile. Drying time can vary depending on temperature, humidity and substrate conditions. When adhesive turns

from white to clear, it is ready to check. Press a finger onto the adhesive. If it is firm and does not transfer to your finger, the adhesive is dry and ready for tile installation. **Caution:** AD-01 Adhesive is an eye and skin irritant. Provide adequate ventilation.

TILE INSTALLATION

Complete one-half of the room at a time. Carefully position the first tile into the adhesive at the intersection of the chalk lines (Figure 4).

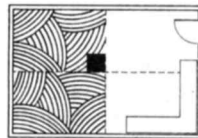


Figure 4 - Positioning tile.

Continue working toward the walls. Position the tiles at a low angle into adhesive tightly against previous tiles with corners lined up. Press tiles firmly without sliding. Spread adhesive on the second half of the floor so it can dry while you are cutting and fitting the last row of tiles along the wall.

CUTTING TILE TO FIT

The last row of tiles will need to be cut to fit to walls and other vertical surfaces.

• **Straight Cuts** - Place loose tiles directly over the top of the last full row of tile making sure all edges are lined up. Using a whole tile as a measuring device, position one edge against the wall and mark the loose tile with a pencil along the opposite edge (Figure 5).

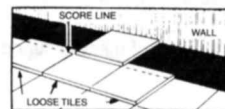


Figure 5 - Straight cuts.

Next, place the marked tile on a cutting board. Using a carpenter square as a guide, score the pencil line deeply with a sharp knife. Break or cut tile along the score mark. **Caution:** Keep fingers away from knife blade to avoid injury. Install the tile with cut edge against the wall. **Note:** If a tile cutter is used for DuraStone, it must be able to accommodate a 16"x 16" tile.

• **Irregular Shapes** - Make a pattern or template out of heavy paper or cardboard to fit to irregular shapes such as door trim, pipes, etc. (Figure 6). Trace the pattern onto the tile and cut with a utility knife or coping saw.

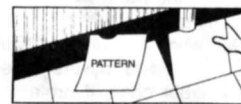


Figure 6 - Irregular cuts.

IMMEDIATELY AFTER INSTALLING THE TILE

Roll the entire floor with a 100 to 150-pound, three-section, steel roller. Roll the floor diagonally across tile joints in both directions.

Tile installed with AD-01 Adhesive can be walked on immediately. Wait 48 hours before washing. Adhesive smears can be removed with mineral spirits or charcoal lighter fluid. **Caution:** Solvents are hazardous materials and should be used with caution in accordance with the manufacturer's label instructions.

Replace the base moldings and return furniture to the room by rolling or sliding it over strips of hardboard.