ENDURANCE® PLANK FLOORING

CONGOLEUM PLANK

Plank Size: (Nominal)	4″ x 36″	6″ x 36″
Sq. Ft./Carton:	36	36
Planks/Carton:	36 pieces	24 pieces
*Adhesive:	DS100 DuraSet Adhesive AD-72 (Alternative Wet Set Adhesive)	

*NOTE: DS-100 is a pressure sensitive adhesive that allows for fast, easy installation over a variety of porous and non-porous surfaces. On job sites where wide temperature fluctuations may occur after installation, AD-72 Adhesive is recommended. It is a wet setting adhesive that dries hard to restrict thermal expansion and contraction and will reduce the potential for end joint openings.

ACCLIMATION

It is important that products maintain proper temperature at the time of installation in order to minimize thermal dimensional changes. The subfloor, all flooring material, and adhesive must be conditioned at a constant temperature between 65°F (18°C) and 85°F (29°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).

GENERAL INFORMATION

When using flooring from two or more cartons, make sure pattern and run numbers are the same. This information is stenciled on the outside of each carton. Complete a dry layout in a small section of the room to confirm the best arrangement. Remember to offset end joints randomly in each row, avoid small cuts of less than 6″ at the border, and be sure to place cut ends toward the wall.

TOOLS AND MATERIALS

- Adhesive and notched trowel
(See “Adhesive” for recommended notch trowel)
- 100-pound, 3-section, steel roller
- Chalk line and chalk
- Carpenter square
- Utility knife (tile cutter optional)
- Cutting board
- Tape measure or rule

SUBFLOOR REQUIREMENTS

Endurance Plank may be installed over dry concrete on all grade levels, suspended wood floors and other prepared surfaces. All surface imperfections must be leveled with a portland cement-based latex patching compound. The use of gypsum-based patching compound is not recommended by Congoleum where Endurance Plank is installed.

SUBFLOOR SURFACE	ADHESIVE	LIMITATIONS	COMMENTS
Wood	DS-100 or AD-72	Suspended wood subfloors with double layer construction	Use underlayment grade panels suitable for resilient flooring.
Concrete	DS-100 or AD-72	Not to exceed 3 pounds vapor emissions	Conduct moisture and bond tests prior to installation.
Lightweight Concrete and Gypsum Toppings	DS-100	Must be dry. Seal with a sealer/primer recommended by the topping manufacturer. Do not install over powdery surfaces	Minimum 2000 psi compression rating is preferred. A bond test is recommended.
Radiant Heated Floors	AD-72	The subfloor surface should not exceed 85°F. Underlayment topping must be poured to a depth of 3/4” above the top of electric cables or water tubes. Heating mats installed in a mortar bed are not recommended.	The temperature of the floor should be limited to 70°F (21°C) for 24 hours before, during and 48 hours after installation.
Existing Resilient Flooring and Tile	DS-100	Single layer, fully adhered. Do not install over heavy cushioned or cushioned backed flooring, tile installed below grade or self adhering tile.	Remove wax or polish, level embossed areas with an embossing leveler
Ceramic, Marble and Granite	DS-100	Tile must be well bonded and in good condition	Level floor surface with a latex modified portland cement underlayment
Terrazzo	DS-100	Not to exceed 3 pounds vapor emissions	Clean floor thoroughly and remove all sealer and polish
Cork, foam and other soft materials	N/A	Not recommended	These materials are used for sound isolation

For details on suitable subfloors and preparation, refer to the Congoleum Professional Installation Guide MO176.

EXISTING RESILIENT FLOORS

WARNING: DO NOT SAND, DRY SWEEP, 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.

Various federal, state, and local government agencies have regulations governing the removal of in-place asbestos containing material. If you are considering 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 *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

MOLD AND MILDEW ISSUES

Prior to removing an existing floor following the RFCI Recommended Work Practices for Removal of Resilient Floor Coverings (unless state or local law requires other measures), if there are visible indications of mold or mildew or the presence of a strong musty odor in the area where resilient flooring is to be removed or installed, the source of the problem should be identified and corrected before proceeding with the flooring work. In virtually all situations, if there is a mold issue, there is or has been an excessive moisture issue. Visible signs of mold or mildew (such as discoloration) can indicate the presence of mold or mildew on the subfloor, on the underlayment, on the back of the flooring, and sometimes even on the floor surface. If mold or mildew is discovered during the removal or installation of resilient flooring, all flooring work should stop until the mold or mildew problem (and any related moisture problem) has been addressed.

In areas where flooding has occurred, it is recommended that damaged flooring be removed following the RFCI Recommended Work Practices for Removal of Resilient Floor Coverings (unless state or local law requires other measures). Any underlayment and subfloor should be allowed to thoroughly dry and, if necessary, cleaned, disinfected, and otherwise remediated consistent with the U.S. Environmental Protection Agency (EPA) guidelines referenced below. Any structural damage or signs of mold or mildew must be corrected before reinstalling resilient flooring. This may include for example replacement of the underlayment and/or subfloor.

For water damage caused by leaking fixtures, the source of the moisture leak must be located and corrected. Any structural damage must be repaired and any signs of mold or residual moisture must be addressed before replacing the resilient flooring in the affected area.

To deal with mold and mildew issues, you should refer to the EPA guidelines that address mold and mildew. Depending on the mold and mildew condition present, those remediation options range from cleanup measures using gloves and biocide to hiring a professional mold and mildew remediation contractor to address the condition. Remediation measures may require structural repairs such as replacing the underlayment and/or subfloor contaminated with mold and mildew as a result of prolonged exposure to moisture.

The EPA mold guidelines are contained in two publications "A Brief Guide to Mold, Moisture and Your Home" (EPA 402-K-02-003) and "Mold Remediation in Schools and Commercial Buildings" (EPA 402-K-01-001). Appendix B of the "Mold Remediation in Schools and Commercial Buildings" publication describes potential health effects from exposure to mold, such as allergic and asthma reactions and irritation to eyes, skin, nose and throat. These publications can be located on EPA's website at www.epa.gov/iaq/molds/

PREPARING THE AREA

Remember to condition all flooring material, subfloor, and adhesive at 65°F (18°C) to 85°F (29°C) for 48 hours prior to, during, and 48 hours after installation.

- Move all furniture, appliances, and fixtures from the room.
- Remove all binding strips or other restrictive molding from doorways, walls, etc.
- For a more professional-looking job, undercut the wood door casing where possible so that the flooring can be slid under it.

FLOOR LAYOUT

Place a mark in the center of the floor at each end of the room. Snap a chalk line between the marks (Figure 1).

It may be necessary to adjust the center line to avoid small border pieces at side walls. To do this, measure the distance between the center line and the side wall. Divide the measurement by the plank width (4″ or 6″). If the remainder is less than half a plank width, adjust the center line one half the width of a plank in either direction (Figure 2).

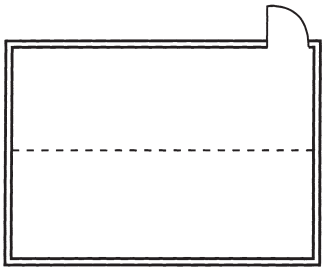

Figure 1: Center line

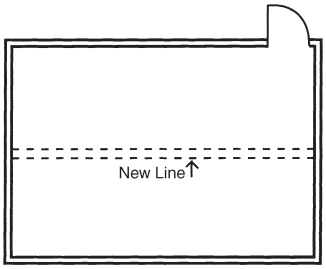

Figure 2: Adjust center line

Adhesive	Trowel
DS100	1/16″W, 1/32″D, 1/32″ Apart
AD-72	1/16″W, 1/16″D, 1/16″ Apart

Periodically check the trowel for notch wear.

CONGOLEUM DS100 DURASET ADHESIVE

Spread Congoleum DS100 adhesive over one-half the floor up to the center line. Allow adhesive to dry to a tack, normally 45 to 60 minutes, before installing plank. Adhesive will turn from light blue to clear when ready. Start installing the plank along the center line (Figure 3). Complete each row, including cut pieces at the wall before proceeding to the next row. Offset cross joints by at least 6″ and position planks in a random fashion for the best appearance. Position each plank, tightly against the previous one, by pressing it firmly into place with out sliding it. Complete the opposite side of the room following the same procedure. Roll the entire floor with a 100 pound three section roller. Restrict to light traffic for the first 24 hours.

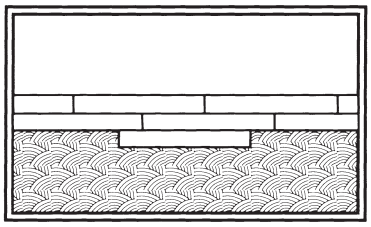

Figure 3

CONGOLEUM AD-72 ADHESIVE

Congoleum AD-72 is a wet-set adhesive that dries hard to resist thermal expansion and contraction of plank. Tile must be laid into adhesive before it sets up, generally within 20 minutes under normal conditions. Because it is a wet-set adhesive, AD-72 can only be used on porous surfaces such as wood and concrete. AD-72 will not dry when applied over old resilient floors. Therefore, old resilient floors should either be removed following recommended work practices, covered with wood underlayment, or use DS100 adhesive.

ADHESIVE APPLICATION

Snap chalk lines to divide the room into smaller sections for adhesive application. Measure accurately from the center line out toward the wall (Figure 4). Each section must be a multiple of the plank width (4″ or 6″ depending on the product being installed), easy to reach, and be no larger than an area that can be covered with flooring in approximately 20 minutes.

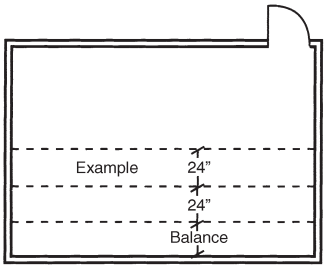

Figure 4: Divide the room into sections

Spread adhesive in the section farthest from the entrance doorway with a 1/16″ x 1/16″ x 1/16″ square notch trowel. Allow a few minutes open time for adhesive to tack up, then install planks immediately before it skins over or dries.

Carefully position the first row of plank along the chalk line and then work toward the wall. Do not slide planks into place. Position each plank lightly against the previously laid plank and press it firmly into the adhesive (Figure 5). Work in straight rows installing cut pieces as you continue. Periodically check to be sure at least 95% of the adhesive pattern has been transferred to the back of the plank. If adhesive starts to set up or skin over, scrape it up and reapply fresh adhesive.

Roll the floor in the long direction of the plank with a 100-pound, three-section, steel roller immediately upon completing each section. Re-roll in two hours. Remove adhesive smears with a clean cloth and soapy water. Use a cloth dampened with mineral spirits to remove dry or tacky adhesive. **CAUTION**: Mineral spirits is flammable. Read and follow cautions on container label.

Continue installing flooring in a random fashion, completing each section (Figure 6) before starting the next. Avoid stepping or working on freshly laid flooring. A kneeling board will be required to complete the final section.

Restrict traffic for 24 hours. Do not wash the floor for at least 48 hours.

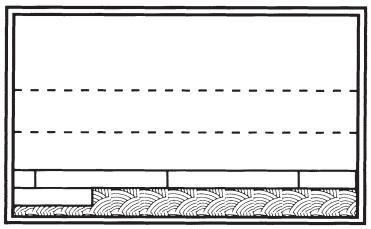

Figure 5.

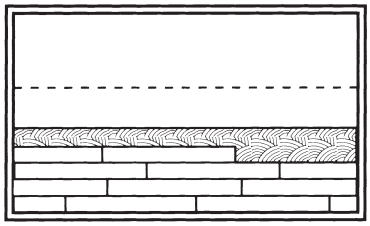

Figure 6.

CUTTING PLANK TO FIT

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

STRAIGHT CUTS

Place a loose plank directly over the top of the last full plank, making sure all edges are lined up. Using a whole plank as a measuring device, position one edge against the wall and mark the loose plank with a pencil along the opposite edge (Figure 7).

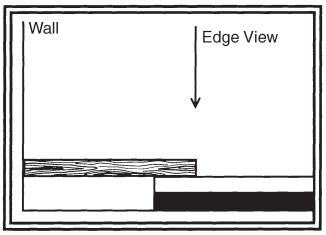

Figure 7.

Next, place the marked plank on a cutting board. Using a carpenter square as a guide, score the pencil line deeply with a sharp knife. Break or cut plank along the score mark. **CAUTION:** Keep fingers away from knife blade to avoid injury. Install the plank with the cut edge against the wall.

IRREGULAR CUTS

Scribe plank to fit to irregular shapes such as door trim, pipes, etc. Cut with a utility knife.

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