COMMERCIAL VINYL COMPOSITION FLOOR TILE
ALTERNATIVES, CHOICES, CX SERIES AND PROFILE

INSTALLATION

Temperature
Congoleum tile products are designed to be installed in enclosed, heated areas only where HVAC has been in operation for at least 10 days prior to installation and thereafter.

For best results the tile should be installed at the same temperature as the room(s) will be when occupied or in service. 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 before, during and 48 hours after installation. Thereafter, maintain room temperature between 55°F (13°C) and 100°F (38°C).

Failure to condition the materials and subfloor or maintain proper temperatures can lead to tile joint peaking or separation. Congoleum will not assume liability for installation or performance failures resulting from improper temperatures.

Storage and Handling
Proper storage of tile is necessary to prevent distortion. Store tile on a smooth floor in a clean, dry, interior area where it is protected from the elements. Ideal long-term storage temperatures range from 50°F (10°C) to 70°F (21°C). Storage on an uneven surface or in extreme temperature can cause distortion.

Limit stacking tile to five cartons high. Stack in straight tiers. Do not double-stack pallets and do not place heavy weight on top of cartons. Always handle cartons carefully to avoid damage.

Suitable Substrates
For detailed information on subfloors and preparation, please refer to supporting document Suitable Substrates at www.congoleum.com.

Congoleum vinyl composition tiles are recommended for installation over properly prepared suspended wood floors and approved underlayments, concrete on all grade levels, metal, terrazzo, ceramic and marble. The substrate must be clean, dry, smooth, structurally sound, and free of curing compounds, parting agents, old adhesive, paint, varnish, oil, grease, wax, solvent and other foreign material that can affect the flooring or interfere with the adhesive bond.

Concrete floors must be constructed, finished and cured in accordance with the American Concrete Institute (ACI) 302 Guide for Concrete Floor and Slab Construction, Class 2 or 4 and have a minimum compressive strength of 3500 psi. Moisture vapor emissions should not exceed 5 pounds (ASTM F1869) or 80% RH (ASTM F2170) with a pH range between 5 and 9. Do not install tile over expansion joints or in areas where excessive moisture, hydrostatic pressure, or alkali conditions exist.

In light commercial applications, vinyl composition tiles can also be installed over approved, single layer existing resilient flooring over on and above-grade levels only. Do not install tile over existing flooring installed below grade level.

Note: Installation over existing flooring may reduce the indentation resistance of the new floor. The use of an embossing leveler is not recommended.

Note: Some previously manufactured vinyl floor covering and asphalt “cutback” adhesive contain asbestos. For preparation or removal of these products, refer to the Resilient Floor Covering Institutes publication “Recommended Work Practices for the Removal of Resilient Floor Covering”. These work practices must be followed. For a copy of the recommended work practices, please contact: Resilient Floor Covering Institute (RFCI) 401 East Jefferson Street, Suite 102, Rockville MD 20850.

Warning: Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic “cutback” adhesive or other adhesive. These products may contain asbestos fibers or crystalline silica. Avoid creating dust.

GENERAL INFORMATION
The floor should be installed with alternating tiles quarter turned for best overall appearance and joint quality. When using tile from two or more cartons, make sure the SKU, shade and lot numbers are the same. The SKU, shade and lot numbers are stenciled on the outside of each carton. Mix tiles from several different cartons to help blend minor shade variations. If the shade variation is significant, do not install the tiles.

ADHESIVE
Congoleum recommends using only Congoleum AD42 Adhesive for installing all Congoleum vinyl composition floor tiles. The only exception is in areas of heavy rolling or static loads, where extreme temperature fluctuations may occur i.e. near freezer sections in grocery stores or
frequent wetting is likely. In this case we recommend the use of MAPEI Ultrabond G15 a fast-setting, two-part reactive epoxy adhesive.

**AD42 Clear Thin-Spread Tile Adhesive**
Congoleum AD42 is a clear, thin-spread adhesive designed for installing vinyl composition tile over suspended wood, concrete on all grade levels, metal, terrazzo, ceramic, marble, and approved resilient floor covering installed over on and above-grade levels. Congoleum AD42 adhesive must be applied with the recommended trowel U-notch size, 1/16” wide, 1/32” deep, 1/32” apart and allowed to dry completely to a tack before installing the tiles.

**Precautions**
The use of the correct adhesive and proper application is critical for a quality, trouble-free installation. Excessive amounts of adhesive will result in telegraphing or exudation (oozing) between the tile in service depending upon the type of adhesive used; whereas, insufficient coverage, caused by spreading too thin or using worn trowels, will prevent proper adhesion of the tile.

Some concrete floors are excessively porous and absorptive. Premature set-up of the adhesives is first-hand evidence of excessive absorption (i.e., when adhesive sets up in less open time than specified on the label). This condition can be corrected by priming the subfloor with the required adhesive (using a straightedge steel trowel for application of the adhesive). The prime coat should be as thin as possible.

**ROOM LAYOUT**
**IMPORTANT:** Avoid positioning tile joints directly over underlayment joints or seams in the old floor covering.

There are two basic tile layouts: square and diagonal. Two or more colors from the same or coordinating product lines can also be mixed or matched to create decorative borders and special effects.

**Square Layout**
- Place a mark in the center of the floor at each end of the room. Snap a chalk line down the center of the floor to connect the marks (AB).
- Find the center of the line and snap a second chalk line at a right angle using the 3’, 4’, 5’ method to form a right angle (Figure 1).

**Diagonal Layout**
- Lay out the center and perpendicular lines as previously covered under Square Layout.
- Place a mark on each line, an equal distance away from the center point (E, F, G, H).
- Using a slightly larger measurement, swing an arc on both sides of each line from points E, F, G, H. Snap diagonal chalk lines at the point where the marks intersect (Figure 3). If done correctly, the chalk lines will intersect the center point.
If the layout includes a border, adjust the size of the border to allow whole tiles to be used at the edge of the field tiles. When using two different colors, i.e. checkerboard design, it will be necessary to adjust the layout to allow the same colored tile to be used at the edge of the field.

To adjust the layout, snap new diagonal chalk lines one-half the distance of a full tile away from the original lines (Figure 4). It may also be necessary to adjust the size of the border.

The chalk lines on both square and diagonal layouts will serve as guidelines for positioning the tile and adhesive application.

Drying time varies with temperature and humidity. A typical set-up time is 45-60 minutes.

Tiles should be laid starting at the center of the room, working towards the wall. The border tiles should be scribed to the wall, cut and fitted in place after the field tiles have been installed.

Carefully set the first tile into the adhesive at the intersection of the chalk lines. The tile will bond instantly on contact so it must be positioned accurately without sliding it into position. Continue setting the tiles in a stair-step pattern along the center and perpendicular lines. Hold the tile in a low angle to ensure tight fitting joints. Position each tile tightly against the edges of the previously installed tiles before pressing down firmly. Continue working toward the walls to complete the area. Check to make sure corners are lined up and adjust if necessary to prevent run-out.

Spread the 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. Complete the second half of the room following the same procedures.

Immediately upon completion, roll the entire floor in both directions with a minimum 100-pound, three-section roller.

Remove any adhesive that gets on the face of the tile with a clean, white cloth dampened with mineral spirits.

CAUTION: Mineral spirits is extremely flammable. Read and follow cautions on container label.

Reroll the entire floor after one to two hours.

Do not wash or apply polish to the floor for a minimum of 72 hours after installation.

CUTTING AND FITTING

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

Straight Walls

1. Place tile to be cut, hereafter called Tile A, precisely over the tile in the row closest to the wall. Make sure the tile pattern is running in the right direction.
2. Lay another tile, hereafter called Tile B, tight against the wall and directly over Tile A. Allow a 1/8" space for expansion, between the edge of the tile and the walls and other vertical surfaces when a base molding is going to be installed.
3. Using the edge of Tile B, as a guide, mark Tile A with a pencil.
4. Cut the tile along the pencil line with a utility knife and flex the tile downward to break off the excess.
5. Place the tile into position with the cut edge along the wall and press firmly.
**Irregular Walls/Obstacles**
Use direct scribing or pattern scribing to fit tile to irregular shapes.

**Direct Scribe**
1. Place tile to be cut, hereafter called Tile A, along the wall, overlapping the last whole tile.
2. Place a mark along the back edge of Tile A.
3. Set dividers to the distance between the mark and the edge of the tile.
4. Reposition the tile and scribe.
5. It may be necessary to heat the tile from the back before cutting it on intricate cuts.

**Pattern Scribing**
**TIP**: Cover adhesive with wax paper to avoid adhesive transfer if scribing felt is used. Remove wax paper before installing the tile.
1. Cut a piece of scribing felt the exact size of the tile.
2. Position the felt in the area to be fit and trim approximately 1/4" (6.4 mm) short of the walls.
3. Scribe the felt with dividers and extend reference lines.
4. Remove the felt and reposition it accurately on a piece of tile. Transcribe the marks. Heat the back of the tile before cutting.

**Diagonal Layout**
Make a square template out of rigid sheet flooring or other rigid material. Use the exact dimensions of the tile when measured diagonally from corner to corner. (The diagonal dimension of a 12" x 12" tile is approximately 17").

Follow the steps for fitting straight walls on square layouts, using the templates in place of Tile B.

**Finishing the Job**
- Clean any adhesive smears on the face of the flooring immediately while wet with a clean cloth and dilute solution of neutral cleaner and water. Mineral spirits can be used to remove dried adhesive.
- **CAUTION**: Mineral spirits is extremely flammable. Read and follow cautions on container label.
- **TIP**: Sweep or vacuum the floor to remove loose dirt.
- If needed, after installation use lighter fluid, rubbing alcohol, paint thinner or mineral spirit applied with a clean white cloth to remove scuffs marks and adhesive residue. Keep traffic off treated area for 30 minutes. **Caution**: Lighter fluid and other solvents are flammable. Carefully read and follow cautionary information on label.

**Maintenance Procedures**

**Alternatives, Choices, CX Series and Profile**
These products must be maintained with floor polish and a regular maintenance schedule to seal and protect the surface against soil and staining. Prior to use, apply a minimum of three to five coats of high quality metal cross-linked acrylic floor polish.

Protect the floor with heavy Kraft paper on construction sites where other trades are active and the initial application of floor polish is prohibited. Do not use asphalt-saturated felt paper.

**Safety Information**
**CAUTION**: Wet floors are slippery. Water, other liquids and foreign matter on the surface of the floor can cause it to be slippery and should be removed immediately. Improper waxes and finishes can also cause slipperiness. Whenever washing, waxing or stripping floors, traffic should be excluded from the area due to the possibility of slipping and signage to warn against a slip hazard should be prominently placed. The use of walk-off mats at entrances will reduce tracked-in water.

**WARNING**: An electric shock hazard exists when performing maintenance with a floor machine. Use a ground fault circuit interrupter for any electrical connection in a wet environment.

**CAUTION**: DO NOT DRY BUFF, SPRAY BUFF, OR BURNISH VINYL COMPOSITION (WITH OR WITHOUT ASBESTOS) OR ASPHALT FLOOR TILE WITHOUT PRIOR APPLICATION OF A METAL CROSS-LINKED ACRYLIC POLISH WHICH IS RESISTANT TO NEUTRAL CLEANERS. DO NOT DRY STRIP UNDER ANY CONDITIONS.

**Initial Maintenance**
- Allow adhesive to dry a minimum of 72 hours before washing or waxing the floor. Initial maintenance MUST be performed on Alternatives, Choices, CX Series and Profile. If these instructions are not followed, permanent staining may occur.
- Protect the floor from rolling or static loads for at least 48 hours after installation to allow adhesive to set firm.
- Always use strips of hardwood or plywood when moving heavy objects such as furniture or equipment over the floor even when using carts or dollies with wheels.
- Sweep or vacuum the floor to remove loose dirt.
- If needed, after installation use lighter fluid, rubbing alcohol, paint thinner or mineral spirit applied with a clean white cloth to remove scuffs marks and adhesive residue. Keep traffic off treated area for 30 minutes.

**Note**: If the floor becomes heavily soiled it may be necessary to strip the factory finish prior to applying polish.

- Apply a minimum of three to five coats of floor polish. Five coats are recommended in medium to heavy commercial applications.
Regular Maintenance

• Vacuum, sweep, or dust with an untreated mop, daily, to remove loose dirt and grit. Do not use sweeping compounds or oil treated mops.

• Damp-mop floor regularly with a dilute solution of No-Rinse Cleaner. Follow all label instructions. To remove heavy soil use a slow speed floor machine equipped with a medium-grade, natural fiber scrubbing brush and a concentrated cleaner. Rinse floor after scrubbing.

• To refurbish and restore the gloss, clean the floor and spray buff with a high speed floor machine (1000 to 1500 RPM) equipped with a white, tan or red-colored buffing pad. A dilute solution (1 part polish/2 parts water) can be used for spray buffing.

• After repeated spray buffing operations; additional coats of polish must be applied.

• DO NOT USE STEAM CLEANERS ON CONGOLEUM FLOORS; they can permanently damage the floor.

Congoleum Commercial Floor Care Products

Bright ‘N Easy Commercial No-Rinse Cleaner
Order Code: 5001C
Size: 5-gallon pail

Bright ‘N Easy Commercial Floor Polish
Order Code: 5002C
Size: 5-gallon pail

Bright ‘N Easy Commercial Floor Polish Remover
Order Code: 5003C
Size: 5-gallon pail