

DURACERAMIC INSTALLATION PROCEDURES SAFETY

Safety for yourself and others on the job site is your responsibility as a professional flooring installer. Read and observe the following safety precautions.

- Read and follow the safety precautions and warnings printed on the label of the installation accessory products being used. *Obtain the appropriate MATERIAL SAFETY DATA SHEETS (MSDS) for information that may be required for products which may contain hazardous materials.* DuraCeramic does not have MSDS because it is classified as an “article” and not a chemical. MSDS are available for the adhesive, joint sealer, and grout. You may obtain a MSDS for these products by calling or writing to your Congoleum distributor or contacting Congoleum at the address or phone number listed on this page.
- Various safety precautions should be taken when preparing subfloors.
- **Wood and concrete:** If working on wood or concrete subfloors, use proper safety precautions when sanding or grinding. Avoid creating dust. Concrete and cementitious patching compounds contain crystalline silica, which is a known carcinogen. Wood dust is classified as a nasal carcinogen in humans. Airborne wood dust may also be an explosive hazard.
- **Resilient Flooring**

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 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.

NOTICE

Various federal, state, and local government agencies have regulations governing 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 (609) 584-3888	Resilient Floor Covering Institute 401 East Jefferson Street Suite 102 Rockville, MD 20850 (301) 340-8580
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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.

- Keep work areas free of obstructions, such as tools and scrap or loose tiles, and dispose of scrap materials promptly and properly to eliminate a slip or trip hazard.

- Always use the correct lifting practices.
- Use only UL® approved electrically powered tools **equipped with a dust collector**. Read and follow the safety precautions and recommended procedures for using power tools.
- Use heavy-duty extension cords and keep them in good repair.
- If using mineral spirits as suggested in this guide, **CAUTION: Mineral spirits is a flammable material. Read and follow cautionary instructions on the labels of these products.**
- Wear non-conducting rubber-soled shoes and use a ground fault interrupter (GFI) when using power equipment in damp or wet areas.
- Wear protective equipment when appropriate such as safety glasses, respirators, **NIOSH-designated** dust masks, kneepads, gloves, etc.

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/

DuraCeramic

DuraCeramic is an innovative flooring product with unique installation procedures that vary from traditional ceramic and natural stone. DuraCeramic is constructed with a limestone composite fortified with a polymeric resin that provides toughness and flexibility to resist breaking from normal subfloor deflection, expansion and contraction. This feature permits easy installation using a pressure-sensitive adhesive and a flexible grout over a wide variety of subfloor surfaces without extensive floor preparation.

OVERVIEW

- DuraCeramic is installed with Congoleum DS100 DuraSet™ Adhesive, a high strength, pressure-sensitive adhesive. Mortar, mastic or other adhesives are not recommended. DuraCeramic can be installed with or without grout, depending on the desired appearance.
- **Grouted floors** are laid with a 1/16” to 1/4” space at the joints depending on the desired grout line width. The floor can be grouted immediately after installation with Congoleum DuraCeramic Premixed Grout. Do not use cement, epoxy or other premix grouts.
- **UngROUTED floors** are laid with no space at the joints. The joints on an ungrouted floor can be sealed with Congoleum DS200™ DuraCeramic Joint Sealer to lock out surface water and aid cleaning. Sealing is highly recommended for all ungrouted DuraCeramic floors.

REQUIRED INSTALLATION ACCESSORY MATERIALS

- DS100 DuraSet Adhesive - For all approved subfloors
- DuraCeramic Premixed Grout - For grouted floors only
- DS200 DuraCeramic Joint Sealer - For ungrouted floors only

RECOMMENDED USE

DuraCeramic is recommended for residential and light commercial use in dry, interior, heated areas.

Residential

DuraCeramic is recommended for use in all areas of the home.

Light Commercial

DuraCeramic is recommended for use in areas receiving light commercial foot and wheel traffic:

Retail

- Specialty Shops
- Beauty Salons
- Clothing and Apparel Shops
- Boutiques

Office

- Lobby
- Reception Area
- Conference Room
- Lounge

- Offices
- Restrooms

Health Care

- Doctors Offices
- Dental Offices

Hospitality

- Dining Areas
- Hospitality Rooms
- Lounges
- Guest Rooms

Educational

- Administrative Lounges
- Dormitory Rooms

Notes:

DuraCeramic is not recommended for installation in exterior or unheated areas, wet areas, commercial kitchens or food processing areas or on ramps. For information on other specific applications, contact the Congoleum Installation and Technical Department at (609) 584-3888.

Areas receiving more concentrated traffic and or routine spills should be protected with floor polish and a regular maintenance schedule should be followed. See care and maintenance information.

PRODUCT INFORMATION

Size (nominal)	15 5/8” x 15 5/8”
Gauge (nominal)	.160”
Packaging	10 Pieces/Carton 17 Sq. Ft.
Shipping Weight	33 Lbs./Carton
NBS Smoke Density	Passes
Critical Radiant Flux (ASTM E648 >0.45w/cm ²)	Passes
Motor Vehicle FMVSS 302	Passes
Static Load Limit	250 psi
Slip Resistance	Meets ADA Recommendations
PEI Rating	3-4
Installation Method	Grouted or Traditional Edge-to-Edge Fit (UngROUTED)
Subfloor Application	On, Above, or Below- Grade Level
Adhesive	Congoleum DS100 DuraSet Adhesive
Grout	DuraCeramic Premixed Grout
Joint Sealer (Recommended for ungrouted floors)	DS200 DuraCeramic Joint Sealer
Suggested Usage	Residential and Light Commercial
Warranty	Residential - Lifelong Lt. Commercial - Five-Year Commercial

INSTALLATION ACCESSORIES INFORMATION

	DS100 DuraSet Adhesive	DS200 DuraCeramic Joint Sealer	DuraCeramic Premixed Grout	
Order Code	DS100	DS200	Use specific color code	
Description	Solvent free, acrylic, pressure-sensitive adhesive	Water-based, flexible acrylic sealer	Premixed, sanded, acrylic grout	
Use	Installing DuraCeramic over all approved substrates	For sealing joints in ungrouted DuraCeramic floors	For use with DuraCeramic flooring in grouting joints 1/16" to 1/4" wide. Can also be used for grouting most ceramic and porcelain floor tile.	
Limitations	Not recommended for ceramic, porcelain, or natural stone.	Not recommended for ceramic, porcelain, or natural stone.	Not recommended for nonvitreous tiles or natural stone, exterior use, shower floors or underwater use.	
Coverage	200 to 250 sq. ft. per gallon	320 sq. ft. per 8 oz. bottle	Joint Width	Approximate Coverage
			1/16"	450 sq. ft./gal.
			1/8"	325 sq. ft./gal.
			3/16"	275 sq. ft./gal.
			1/4"	225 sq. ft./gal.
Applicator	1/16" wide, 1/32" deep, 1/32" apart , trowel blade adaptor included	Applicator nozzle included	Hard rubber float or green epoxy float	
Working Time	12 hours. Dry to tack - 45 to 60 minutes under normal conditions	N/A	10 minutes- for best results apply grout in a 20 sq. ft. area and clean up immediately	
Set Up Time	N/A	Tack free -1 hour; Set up - 8 hours	16 to 24 hours	
Clean Up	Wet - Water Dry - Mineral spirits	Wet - Water Dry -Household ammonia and water with a 3M white nylon pad.	Wet - Water Dry - Household ammonia cleaner. Do not use grout haze removers.	
Color	Pale blue, turns clear when tacky dry	White, turns clear when dry	Popular versatile colors available	
Tracers	Dark Red	N/A	N/A	
Unit Size	1 quart; 1 gallon; 4 gallons	8 oz. bottle	1 gallon	
Shelf Life	1 year if unopened	1 year if unopened	1 year if unopened	
Freeze/Thaw Stability	Yes	Yes	Yes	
Flammable	No	No	No	
Cautions	Potential skin and eye irritant	Potential skin and eye irritant	Potential skin, eye and respiratory irritant	

DS100 and DS200 - WARNING: Potential eye and skin irritant.

DuraCeramic Premixed Grout - WARNING: Potential eye, skin and respiratory irritant.

Mineral spirits - Caution: Flammable material; read and follow cautionary statements on label.

GENERAL INFORMATION

- DuraCeramic is recommended for interior, residential and light commercial use in enclosed, heated rooms.
- Always store and transport cartons on a flat surface stacked no more than 10 cartons high.
- Do not install at a temperature higher than 85°F (29°C).
- Condition the room(s) and all flooring and setting materials 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).
- When installing tile from two or more cartons, check the code on the side of the cartons to ensure that the pattern and shade numbers are the same. Mix tiles from several cartons to achieve the best appearance.
- For the best visual results, the directional arrows printed on the back of the tile should be installed following Fig. 1. To achieve the ultimate design appearance, simply turn tiles randomly, i.e. north, south, east and west.

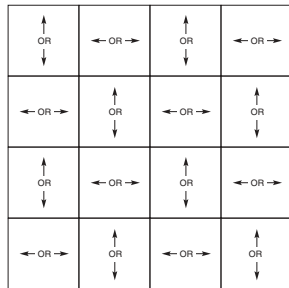


Fig. 1 - Turn tiles as shown.

SPECIAL INSTALLATION TOOLS

- Notched trowel (1/16" wide, 1/32" deep, 1/32" apart)
- 100 lb., three-section, steel roller
- 18" tile cutter - optional

SUBFLOOR RECOMMENDATIONS

- DuraCeramic may be installed over dry concrete on all grade levels, suspended wood floors, qualifying old resilient floors, ceramic tile and terrazzo.
- The subfloor must be clean, dry and free of dust or other extraneous material that will inhibit bonding. Thoroughly vacuum the floor to remove dust.
- **Deviations in the flatness of the subfloor cannot exceed 1/16" in 1' or 3/16" in 10'.** Check the floor with a straightedge to identify low areas and fill with a portland cement-based latex-patching compound. This method of preparation helps to achieve a flatter surface than traditional skim coating. Wood subfloors are not normally as wavy as some concrete floors, but they should be checked and corrected if necessary. Gypsum-based patching compounds are not recommended.

Subfloor Construction/ Materials	Comments	Notes
Wood	<ul style="list-style-type: none"> • Double layer construction over joist or trusses on 16" centers with at least 18" of well-ventilated air space. • Install 1/4" or heavier underlayment over strip wood, single layer wood floors and APA-rated Sturd-I-Floor Systems. 	Subfloor must be solid and free of movement.
Underlayment	<ul style="list-style-type: none"> • APA underlayment grade plywood with fully sanded face. • Hardwood and veneer underlayment panels such as Accu-ply, Multiply, Tec-Ply and Ulay. • Cementitious panels - Fiberock. • Lauan plywood, particleboard, oriented strand board and chipboard create a higher risk for installation and adhesive failure and are not recommended unless warranted by the panel manufacturer or supplier. • Not recommended over cement backer-boards, glass mesh mortar units or acoustical cork. 	Install according to panel manufacturers' written instructions.
Concrete	<ul style="list-style-type: none"> • On, above and below-grade level. • Radiant-heated floors not to exceed 85°F (29°C). 	Moisture vapor emissions not to exceed 5 lbs.
Light Weight Concrete (Residential Application only)	<ul style="list-style-type: none"> • Minimum 100-pound density • Installation over gypsum-based acoustical toppings is not recommended. 	Confirm adequate adhesion to substrate.
Resilient Floor (See WARNING on inside cover)	<ul style="list-style-type: none"> • Smooth, non-cushioned sheet flooring and vinyl composition tile. • Embossed non-cushioned and thin cushioned vinyl flooring can be prepared with embossing leveler in residential applications. • Do not install over soft, heavy cushioned floors, self-adhering tile or tile installed below grade level. 	Must be single layer, fully adhered and well bonded. Remove wax or polish.
Ceramic and Stone	<ul style="list-style-type: none"> • Ceramic, marble and granite. 	Fill grout joints level.
Carpet/ Laminate	<ul style="list-style-type: none"> • Not recommended. 	Remove
Patching Compound	<ul style="list-style-type: none"> • Portland cement-based compound such as Ardex Feather Finish, Mapei Plani-Patch or equal. • Gypsum-based patching compounds are not recommended. 	Refer to manufacturers' instructions for use and applications.

Concrete Floors

Concrete subfloors must be clean, dry, and free of paint, curing, hardening and parting compounds, sealers, and old adhesive residue. Moisture vapor emissions should not exceed 5 lbs./1000 ft.²/24 hrs. when tested with a calcium chloride kit. Do not install DuraCeramic over expansion joints; instead, cut the tile neatly to each side of the joint and fill it with an elastomeric polyurethane joint filler or cover with an expansion plate cover.

Wood Floors

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". Position underlayment joints so they offset the joints in the tile by at least 6". Sand underlayment joints level and fill gaps wider than 1/32" with a recommended patching compound.

FLOOR LAYOUT

- It is important to avoid positioning the tile joints directly over underlayment joints or seams in existing flooring. If this should occur, reposition chalk lines to offset joints by at least 6".
- Layout is slightly different for grouted and ungrouted floors. The grout line width must be added to the tile dimension for layout on grouted floors. Additional chalk lines are also used to keep the joints straight. The nominal tile size is 15 5/8" x 15 5/8".

Square Layouts

- Place a mark in the center of the floor at each end of the room. Then snap a chalk line between the marks.
- Find the center of the line and snap a second chalk line at a right angle. Use the 3', 4', 5' method to form a right angle (Fig. 2).

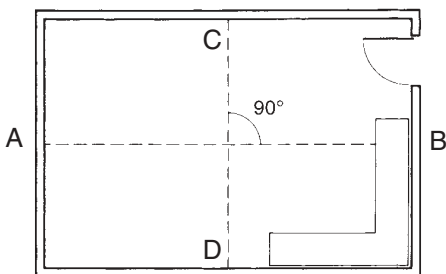


Fig. 2 - Square layout.

- Make a dry layout in one quadrant along the center and perpendicular chalk lines. Remember to allow the desired grout line space between the tiles. A story pole (board marked with tile dimensions, including grout line width) can also be used in place of a dry layout.
- 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 (roughly 7 3/4") away from the original chalk line (Fig. 3). This will provide a balanced layout with larger cut tile around the perimeter.
- When installing grouted floors, divide the room into smaller sections to help maintain consistent grout line widths and keep the joints running straight (Fig. 4). Each section should be the precise dimension of 2 or 3 whole tiles wide, including the grout line width. Layout the smaller sections by starting at the centerlines and measuring out toward the walls. It is not necessary to divide the

room into smaller sections when installing ungrouted floors.

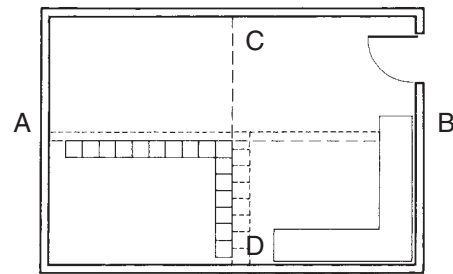


Fig. 3 - Adjust layout at center lines if less than one-half tile at walls.

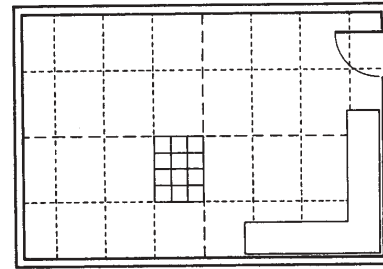


Fig. 4 - Layout smaller sections for grouted floors.

Diagonal Layouts

- Layout the center and perpendicular lines as previously described for a square layout. Place a mark on each line an equal distance away from the center point (distance from center is arbitrary).
- Use a slightly larger arbitrary size and swing an arc on both sides of each line from points E, F, G, H (Fig. 5). Snap diagonal chalk lines at the point where the marks intersect. If done correctly, the chalk lines will intersect at the center point.

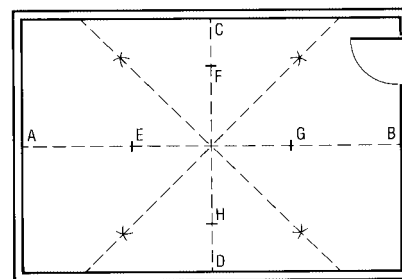


Fig. 5 - Diagonal layout.

- 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 one-fourth of the diagonal dimension of a whole tile (approximately 22"), adjust the starting point and snap a new chalk line one-fourth of the diagonal dimension (approximately 5 1/2") away from the original chalk line (Fig. 6). This will provide a balanced layout with larger cut tile around the perimeter.

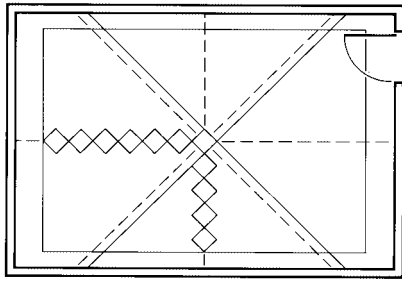


Fig. 6 - Adjust chalk lines for a diagonal layout.

- When using a square border with a diagonal layout, it is necessary to prepare the cut edges of the diagonally cut tiles. See the “Cutting Tile to Fit” section later in this guide.

Note: Chalk lines can be easily removed or difficult to see after applying adhesive over some subfloor surfaces like old flooring and concrete. To avoid losing the lines, mark the subfloor with a pencil and a straightedge, directly over the chalk lines.

ADHESIVE APPLICATION

- Congoleum DS100 DuraSet Adhesive applied with a properly notched adhesive trowel is required for installing DuraCeramic over all approved subfloor surfaces.
- The use of a high quality, floor covering, latex primer that is specifically designed to improve adhesion may be used over wood, porous concrete and patching compounds. The primer will help seal the surface and tie down dust that can interfere with the adhesive bond. Do not use paint primers.
- The recommended trowel notch size, 1/16” wide, 1/32” deep, 1/32” apart must be used (Fig. 7). Excessive amounts of adhesive applied with an improper trowel will delay drying time. Insufficient coverage (normally caused by worn notches on adhesive trowels) will prevent proper adhesion or bond to the tile.



Fig. 7 - Required trowel notch size.

- Spread the adhesive over one-half of the subfloor and a few inches beyond the center chalk line.
- Allow DS100 DuraSet Adhesive to dry completely to a tack before installing the tile. Normal dry to tack time is about 45 to 60 minutes, longer in cool or humid conditions. The adhesive will turn from light blue to clear when tacky dry and will not transfer to the finger when firmly touched. **Do not use fans** to accelerate adhesive drying time. Fan drying can cause the top surface of the adhesive to dry prematurely, trapping residual moisture in and preventing the adhesive from fully curing.

- Tile must be installed within 12 hours after adhesive turns clear.

TILE INSTALLATION

Carefully position the first tile into the adhesive at the intersection of the chalk lines (Fig. 8). The tile will bond instantly on contact so it must be positioned accurately without sliding it. Press the tile firmly into the adhesive. Follow the procedures below for grouted and ungrouted floors.

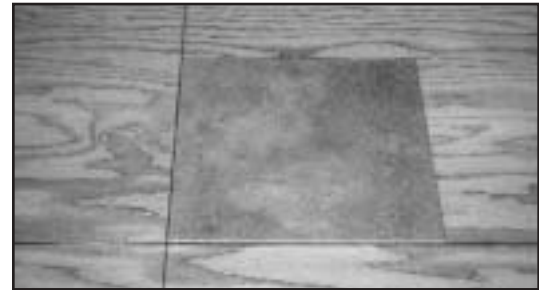


Fig. 8 - Positioning tiles.

Grouted Floors

- The desired grout line width should be determined prior to starting the flooring installation. It is important to understand that the finished grout line will be approximately 1/16” wider than the space between the tile since the grout will extend up, onto the radius, along the top edge of the tile (Fig. 9).

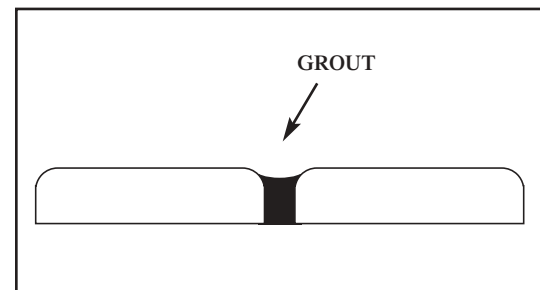


Fig. 9 - The finished grout line width is wider than the space between the tiles.

Spacer Size	1/16”	1/8”	3/16”	1/4”
Actual Grout Line Width	1/8”	3/16”	1/4”	5/16”

- Use spacers to maintain the joint width. If standard tile spacers are used, it will be necessary to remove one leg of the spacer otherwise it will interfere with positioning the tile.
- Stand spacers on end. Do not place tile spacers flat at the intersection of tiles, they can become bonded, making it difficult to remove them without damaging the edge of the tile (Fig. 10).



Fig. 10 - Use spacers with one leg removed.

- Small pieces of DuraCeramic or 1/8" gauge tile, cut into 1/2" x 2" pieces also work well as spacers, depending on the desired grout line width.
- Position spacers along the edge of adjacent tiles, then lay the next tile gently against the spacers without forcing it into place (Fig. 11). Use 2 spacers between each edge of the tile.

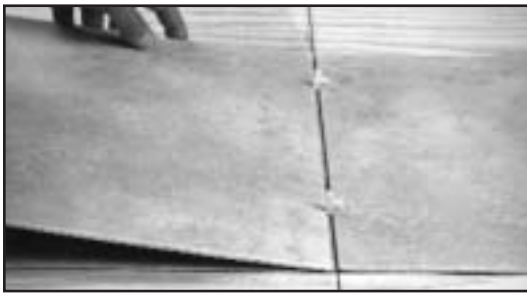


Fig. 11 - Position tile gently against spacers.

- Continue to set the tiles in straight rows to complete each section. Follow the chalk lines to keep the joints straight and make adjustments if necessary. Remove the spacers as you complete each section. Remember to press each tile into the adhesive without sliding it.

UngROUTED Floors

- When installing an ungrouted floor, continue setting the tiles in a stair-step pattern along the center and perpendicular lines (Fig. 12).



Fig. 12 - Install ungrouted floors following a stair-step pattern.

- Hold the tile in a low angle to the floor and position it tightly against the previously laid tile. Press it firmly into the adhesive.
- Continue working toward the walls to complete the first quadrant before starting the next. Check to make sure corners are lined up and adjust if necessary to prevent run-out.

Grouted and UngROUTED Floors

- 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.
- Roll the floor slowly, in both directions, with a 100 lb., three-section roller within one hour after setting the tiles (Fig. 13). Re-roll the entire floor immediately before grouting or applying joint sealer.



Fig. 13 - Roll the floor within one hour after setting tiles.

CUTTING TILE TO FIT

The last row of tiles will need to be cut to fit to walls and other vertical surfaces. Allow a 1/8" space for expansion, between the edge of the tile and the wall. Remember to allow the grout line dimension for grouted floors.

Straight Cuts

- Measure the distance between the last whole tile and the wall. Subtract the dimensions for the grout and expansion space. Use this dimension to mark the tile.
- Place a square or straightedge over the marks and score the surface with a sharp utility knife. Break the tile over the score mark by flexing it downward.
- Install the tile with the cut edge against the wall.

Irregular Shapes

- Scribe the tile to fit.
- Score the surface with a sharp utility knife and break the tile over the score mark by flexing it downward or cut the tile with a coping saw.

Custom Installations

- When installing DuraCeramic in a custom installation with a diagonal layout and a square border, it will be necessary to prepare the cut edge of the diagonally cut tile. First cut the tile to the desired size.
- Then heat the cut edge and back of the tile with a heat gun until it is warm, not hot, to soften it.

- Place the tile on a flat surface and roll the edge with a steel hand roller to turn the edge downward, forming a slight radius (Fig. 14).
- Allow the tile to cool before installing it.



Fig. 14 - Roll the cut edge to form a slight radius.

GROUT AND JOINT SEALER APPLICATION

DuraCeramic can be grouted or sealed (ungROUTED floors only) immediately or within 24 hours after setting. DuraCeramic must be grouted using DuraCeramic Premixed Grout.

Grout Application

DuraCeramic Premixed Grout is an acrylic grout that is designed for high flexural strength and adhesion to the edge of the tile. This feature provides durability to resist cracking from thermal dimensional changes and normal subfloor deflection. Traditional cement grouts are not recommended, and will not perform properly with DuraCeramic.

Tools and Equipment

- Hard, green rubber epoxy float
- Firm, square edge sponge
- 3M® white nylon scrubbing pad
- Water buckets
- Rubber gloves
- Safety glasses

Soft grout floats and soft sponges are not recommended because they tend to pull the grout out of the joint, leaving it shallow. An Installation Accessory Kit, order code DD010, that contains a sponge and two 3M white nylon scrubbing pads is available from your Congoleum distributor.

Surface Preparation

- Roll the floor with a 100 lb., three-section roller just before grouting and check to make sure all edges are tightly seated in the setting adhesive.
- The joints must be clean and dry.
- Remove any adhesive smears from the surface and edges of the tile before grouting.

Application

- Apply grout in small sections, up to 20 sq. ft. and clean up as soon as the grout in the joint dries to the touch (approximately 5 to 10 minutes after application).

- Use the tip of a hard rubber float and fully pack the grout into the joints (Fig. 15). Hold the float in a low angle to the floor and diagonally to the joint and press firmly with short strokes to pack the joints.



Fig. 15 - Pack the grout into the joints.

- Extend the grout a few inches into the next row of tile so water does not run into the unfinished joints during cleanup (Fig. 16).



Fig. 16 - Extend grout a few inches into the next row.

- Remove excess grout from the surface of the tile with the tip of the grout float. Hold the float at a high angle to the floor with the tip placed diagonally over the joint. Move the float parallel with the grout line and apply sufficient pressure to remove the excess grout.

Initial Cleanup

Initial cleanup should be done immediately after finishing each section. The faster the grout is removed from the tile, the easier it is to clean up.

- Allow the grout to set for 5 to 10 minutes or until a surface film develops on the grout in the joint (approximately 5 minutes on a dry warm day, longer on a cool or damp day). Lightly touch the surface of the grout in the joint. If there is no transfer to the finger, proceed immediately with cleanup.
- Spray a light mist of water over the tiles and allow it to remain on the surface for at least 30 seconds. Do not allow the water to flow into the ungrouted joints or accumulate in finished areas.
- Use a 3M white nylon pad and apply light pressure while moving in a circular motion over the tile surface to loosen the grout residue (Figure 17).
- Using light pressure, wipe diagonally across the joints with a firm, square edge sponge to remove the excess water solution. Then rinse the sponge in clean water

and wipe diagonally again to remove any remaining grout residue. Change rinse water frequently.

- Clean tools with water while grout is wet. If allowed to dry, remove with household ammonia and water.

NOTE: It is recommended to use a fan to accelerate drying the grout in applications where room or sub-floor temperatures are cooler. Do not cover grouted floors for at least 24 hours after grouting.



Fig. 17 - Use a 3M white, nylon pad to loosen grout residue.

Final Cleanup

- Allow grout to dry for 24 hours.
- Remove grout haze with water or a solution of 1/4 cup Bright 'N Easy® Polish Remover (or 1/4 cup household ammonia) and 1 gallon of water (an ammonia based glass cleaner will also work). Apply a moderate amount of the solution over a small section and allow it to remain for about 30 seconds. Use a clean, wet sponge or 3M white pad to loosen the grout haze. Rinse with fresh water and buff with a soft, dry terry cloth towel. Do not use grout haze removers or solvents.
- If touch up is necessary, new grout can be applied directly over existing grout.

Keep all traffic off newly tiled floors for 24 hours. Resume normal traffic after 48 hours.

Joint Sealer Application

DS200 DuraCeramic Joint Sealer is designed to keep surface water and dirt from penetrating ungrouted joints.

Surface Preparation

- Roll the floor with a 100 lb., three-section roller just before sealing the floor and check to make sure all edges are tightly seated in the setting adhesive.
- The joints must be clean and dry. Remove any adhesive smears from the surface and edges of the tile before sealing the joints.
- Vacuum the floor to remove dust and loose particles.

Application

- Shake the applicator bottle and allow air bubbles to dissipate before using.
- Remove the sealing plastic cap and cut 1/16" off of the applicator tip to provide a small opening and screw the applicator tip onto the bottle.

- Start in the far corner of the room and apply a uniform 1/16" bead of sealer in the tile joint. Apply the sealer to the first 2 or 3 rows, then come back immediately and seal the perpendicular (cross) joints in this area before the sealer develops a surface film (about 4 minutes). Repeat the process to seal the entire floor.
- The color of the sealer will change from white to clear when it dries.
- If the nozzle becomes clogged, use a straight pin to free the flow.
- Protect newly applied joint sealer from foot traffic and dust until it dries, (approximately 8 hours).
- If touch up is necessary, new sealer can be applied directly over existing sealer.
- Keep traffic to a minimum and do not wash the floor for the first 48 hours.
- Use water to clean up wet sealer and household ammonia and water with a 3M white nylon pad for dry sealer.

IMMEDIATELY AFTER INSTALLATION

- Install or replace base moldings and return furniture to the room by rolling or sliding them over strips of hardboard.
- Use acrylic caulking at bathtubs, showers and other wet areas to prevent water from seeping under the floor.
- Wait 48 hours before damp mopping the floor and at least 5 days before wet mopping or washing. Adhesive smears can be removed with mineral spirits.

REPAIR

DuraCeramic can be repaired easily if it is necessary to replace a tile.

For Grouted Floors

- Use a heat gun to warm the grout along one edge of the tile. The grout will soften when heated.
- Place a straightedge over the center of the grout line and cut the grout with a sharp utility knife (Fig. 18).



Fig. 18 - Cut along the center of the grout line after heating it.

- Remove as much of the grout as possible using care to avoid cutting into the edge of the adjacent tile. Repeat this process on all four sides of the damaged tile.
- Heat the tile a few inches in from the corner. While the tile is warm, drive a putty knife or screwdriver into the heated area with a hammer (Fig. 19).

- Then, pry upward to release the tile from the adhesive. Continue lifting the tile as you heat it until it is completely removed.
- To install a new tile, re-apply DS100 DuraSet Adhesive over the exposed subfloor using the flat side of a trowel; it is not necessary to remove the old adhesive.
- Allow the adhesive to dry completely to a tack and then install a new tile using spacers to maintain the grout line width.
- Roll the tile with a 100 lb., three-section roller.
- Re-grout the tile with DuraCeramic Grout following label instructions. Allow grout to dry for 24 hours and remove any remaining grout haze.



Fig. 19 - Drive a putty knife into the heated area and pry upward.

For UngROUTED Floors

- Use a utility knife and carefully cut through the joint sealer using care to avoid cutting into the adjacent tiles.
- Follow the same procedure for Grouted Floors to remove the tile and re-adhere the replacement tile.
- Re-apply DuraCeramic DS200 Joint Sealer along all four sides of the tile to seal the joints.

PREVENTIVE CARE

- Make sure furniture legs have large surface, nonstaining floor protectors. Replace small, narrow metal or dome-shaped glides with smooth, flat glides that are in flat contact with the floor. Glides should be equipped with self-adhesive felt pads to avoid scratching the surface of the floor. The pads should be checked periodically for grit and wear and replaced when necessary.
- Heavy furniture or appliances that are not moved often should be equipped with flat, nonstaining composition furniture casters or cups of appropriate size - available square from 1 1/2" to 2 5/8" and round from 1 3/8" to 1 5/8".

- Mobile appliances and furniture should be equipped with easily swiveling casters. They should be at least 2" in diameter with nonstaining hard rubber treads at least 3/4" wide. Do not use ball-shaped casters.

- Place mats at outside entrances to prevent dirt, grit and soil from being tracked onto the floor.

CAUTION: DuraCeramic, like other types of hard-surfaced floors, can become slippery when wet. Allow time for the floor to dry after washing. Immediately wipe up wet areas from spills or wet feet. Place mats at outside entrances to prevent water, snow or ice from being tracked onto the floor. Improper polishes or finishes can also cause slipperiness.

REGULAR CARE

- Sweep or vacuum regularly to remove grit and sand that can abrade, dull or scratch the new floor. Do not use a vacuum with a beater brush, because it may damage the floor's surface.

- Wipe up spills promptly with a damp cloth or mop.

- Wash the floor with Congoleum Bright 'N Easy No-Rinse Cleaner or other suitable floor cleaner.

CAUTION: Avoid one-step "mop and polish" products, dishwashing liquids and oil-based cleaners. These may leave a residue which can attract dirt and dull the floor's finish. Avoid cleaners that contain abrasives or solvents which may permanently damage the floor.

- Do not use acrylic or silicone sealers or penetrating sealers on the tile surface. A copolymer or acrylic grout sealer compatible with acrylic grouts may be used on the grout. Do not use a penetrating silicone sealer on the grout.
- The use of floor polish is optional. Light commercial areas that receive a high concentration of traffic or more frequent spills can be maintained with Congoleum Commercial Satin-Gloss Polish (C3100) for added protection. Do not buff the floor.

- For additional care information contact:

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