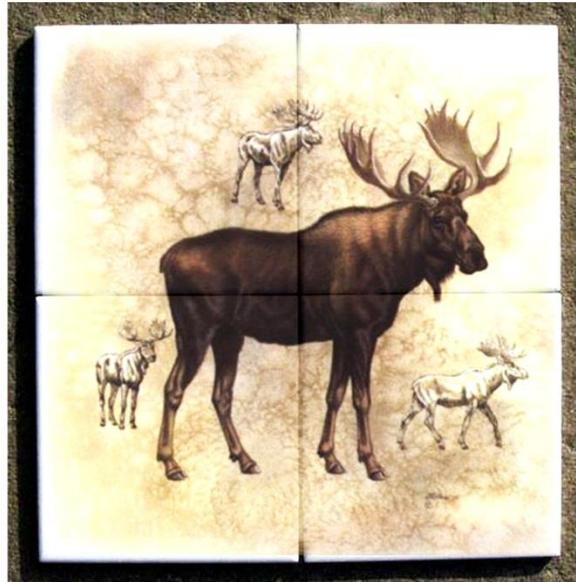


Beauty Squared

tiles

murals



Woodchuck Creations

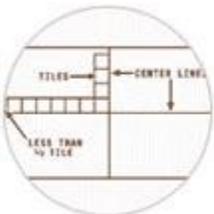
Installing Wall and Countertop Tile

Step 1: Surface Preparation



Tile may be installed over most structurally sound substrates, if they are clean, smooth, dry and free of wax, soap scum and grease. Any damaged, loose or uneven areas must be repaired, patched and leveled. Remove any moldings, trim, appliances, etc., which could interfere with installation. Door jambs may be undercut for tile to slip under.

Step 2: Wall Layout



Begin by finding the center point of the wall, using a level to draw a plumb line in the wall's center. Lay out a row of loose tiles across the bottom of the wall from the center line leaving uniform joints between tiles. (Daltile products have integral spacer lugs so tiles can be butted together leaving a consistent 1/16" joint automatically.) If this layout leaves cuts smaller than 1/2 tile, adjust center line 1/2 tile closer to the side wall. Next, determine the lowest point of the floor or tub, using a level horizontally. Stack two tiles here, and at the top draw a horizontal line on the wall. With the level, continue the line around all side walls to be tiled. This is a guideline for the first row of tiles to be set above.

Step 3: Countertop Layout



Begin with counter trim, then set full tiles from the first row working back -- thus all cut tiles will be placed on the back row against wall. Trim pieces are available for use around recessed appliances. Snap parallel chalk lines on the substrate as needed to keep rows straight. Tile countertops should have a tile backsplash at least 4" high for protection. For backsplashes, match up joints with the countertop tile. Begin with full tiles working up from countertop -- this way cut tiles will be at the top under cabinets. Use bullnose trim pieces on flat walls or sides.

Step 4: Applying Adhesive



Select the right adhesive for the substrate you're using. Carefully read and follow all instructions and precautions on the adhesive or mortar package. Mix only enough to be used within 30 minutes. Using the type trowel recommended on the adhesive package, spread a 1/4" coat on the surface of one grid area, using the flat side of the trowel. Do not cover guidelines. Next, use the notched side of trowel to comb adhesive into standing ridges by holding trowel at a 45-degree angle. Then remove excess adhesive, leaving a uniform, ridged setting bed. Don't spread a larger area than can be set in 15 minutes.

Step 5: Cutting Tile



Measure tiles to be cut carefully and mark with a pencil or felt-tip pen. Make straight or diagonal cuts with a tile cutter, curved cuts with a nipper (chipping away small pieces for best results), full-length curved cuts with a rod saw. Sharp-cut edges may be smoothed with a carborundum stone.

Step 6: Setting Tile



Variation of shades is an inherent characteristic of ceramic tile -- mix tiles from several cartons as you set, for a blended effect. Begin installing tiles in the center of the room, one grid at a time. Finish each grid before moving to the next. Start with the first tile in the corner of the grid and work outward. Set tiles one at a time using a slight twisting motion. Don't slide tiles into place. Insert tile spacers as each tile is set, or leave equal joints between tiles. Fit perimeter tiles in each grid last, leaving 1/4" gap between tile and wall. Any rectangle porcelain should never be set in a running bond pattern, rather no more than a 1/3 overlap, the joint should be widened to 3/16" and use of a large unit porcelain mortar should be employed. When grid is completely installed, tap in all tiles with a rubber mallet or hammer and wood block, to ensure a good bond and level plane. Remove excess adhesive from joints with a putty knife, and from tile with a damp sponge. Do not walk on tiles until they are set (usually in 24 hours).

Step 7: Grouting Joints



First, make sure you're using non-sanded grout. Sanded grout can scratch the tile surface. Generally, you should wait about 24 hours before grouting (refer to the adhesive package for specifics). Carefully read and follow all instructions and precautions on the grout package. Make only enough to use in about 30 minutes. Remove tile spacers and spread grout on the tile surface, forcing down into joints with a rubber grout float or squeegee. Tilt the float at a 45-degree angle. Remove excess grout from surface immediately with the edge of float. Tilt it at a 90-degree angle and scrape it diagonally across tiles. Wait 15-20 minutes for grout to set slightly, then use a damp sponge to clean grout residue from surface and smooth the grout joints. Rinse sponge frequently and change water as needed. Let dry until grout is hard and haze forms on tile surface, then polish with a soft cloth. Rinse again with sponge and clean water if necessary. Don't apply sealers or polishes for three weeks, and then only in accordance with manufacturer's recommendations.

Immediately after tile has been properly installed and grouted, the new installation should be covered with brown paper to protect it from debris during the remaining construction process. The grout joints should be dampened daily with clear water using a clean sponge or mop during the first 7 days. This procedure facilitates the grout cure and color lock. The paper will allow for two important things: (1) to protect the newly installed tile grout and (2) to allow moisture to escape from the grout as it cures further protecting the look and utility of the floor and wall. This is an important step in achieving color consistency. Never use plastic or non-absorbent materials to protect freshly installed tile. These types of non-absorbent products will trap moisture causing the grout to discolor during the curing period. The protective brown paper should remain until construction is complete and the room is opened for intended (post-construction) use.

Post-Grout Clean-Up:

Grout haze is a film that has been left behind on the surface of the tile as part of the final grouting process. Usually this is buffed off the surface after the grout has achieved its initial 12 to 24 hour cure. The removal of the haze is often difficult when buffing with a clean rag or floor machine. Cementitious grout haze can be successfully removed with "Sulfamic" acid, which is a mild acid that attacks and breaks down cement smears. There are several products on the market called grout haze removers, which usually contain Sulfamic acid. Sulfamic acid can also be purchased in powder form and mixed with water to different strengths by qualified professionals. Similarly, 100% Solids Epoxy Grout haze can be removed with an Epoxy Haze Remover. These removers are formulated to safely and quickly remove cured epoxy haze from new tile installations. Their unique formulation will soften most epoxy hazes for easy removal without damaging the grout or tile, usually in one application. Sulfamic acid or grout removers should never be used on Natural Stone products.

Care and Maintenance

Ceramic Tile - Routine Care:

Contaminants and spills on a glazed ceramic tile are, generally, easier to clean than most other unglazed ceramic and porcelain surfaces. **Glazed tile products should be cleaned routinely with an all-purpose, low VOC household or commercial cleaner.** The product chosen should also be grout joint cleaning compatible. The type of product may vary depending on the tile application and use. A multipurpose spray cleaner, which removes soap scum, hard water deposits, and mildew designed for every day use, can be used on wall tile areas in residential baths and showers.

The entire area should be cleaned and scrubbed with cleaner solution through the use of a cotton mop, cloth, sponge, or non-metallic brush. The entire area should be rinsed with clean water to remove any cleaning solution residue. Remember that you should sweep or vacuum floor areas prior to cleaning to remove any dust or debris. Routine cleaners should never contain hazardous or polluting products including, but not limited to acids or ammonia. Acids can damage the grout and the glazed surface of the tile, and ammonia can discolor the grout.

The simplest way to keep a shower or tub surround clean is to either squeegee the walls or wipe them down with a dry towel after you shower or bathe. By removing excess moisture, mildew will have trouble getting a toehold in your bathroom and lime scale and other mineral deposits won't build up on your shower or tub enclosure tile.

Removal of Sealers/Waxes/Floor Finishes:

If you need to remove a topical sealer or floor wax from a ceramic tile you should use a Tile Sealer & Adhesive remover. Always test a small area first. Apply a liberal amount of undiluted sealer & adhesive remover to a manageable area. Allow setting without drying until coating or residue softens. Reapply if necessary until sealer softens and can be removed. If necessary, agitate with white nylon scrub pad. Wipe up the residue with a cotton towel or sponge. Rinse thoroughly with clean water.

To clean, use a liquid non-abrasive household cleaner.

DO NOT use scouring pads, steel wool, sandpaper or other abrasive products.

Avoid cleaners containing ammonia, bleach, abrasives, or other hazardous/polluting compounds.

Always test in small inconspicuous area while using a new cleaner to ensure compatibility.

Ceramic Tile - Grout Care

Grout is the material used to fill the spaces between the individual tiles. Grout comes in many colors. While color is important to the final finished look of the tile installation, it has little effect on the functionality of the grout. The purpose of grout is, simply, to fill the joint between the tiles and becomes a permanent, integral component of the finished installation.

Penetrating/Impregnating Sealer:

Most tile installations use cementitious grouts. This type of grout should be sealed after installation to prevent the color from staining. The grout should be sealed with a penetrating/impregnating sealer (often called grout sealers) which does not contain silicone, as silicone can shorten the useful life of the sealer. Epoxy grouts, conversely, are chemically cured and acid resistant and, as a result, do not require a sealer. The application of a good quality penetrating/impregnating sealer into the grout joints of a cementitious grout will not change the natural color of the grout, but will prevent the penetration of moisture, simplify maintenance, and help prevent staining or discoloration. Only the grout needs to be sealed, not glazed floor or wall tiles. Grout can be sealed seventy-two hours after installation.

There are different grades of penetrating/impregnating sealers, therefore the useful life and price will differ between a low quality and high quality sealer. You may need to reapply the sealer on an annual basis depending on the sealer quality, traffic patterns, and maintenance routine. Some sealers have multiple year warranties for useful life. Refer to the manufacturer warranty, technical & product information for specific details on product installation, useful life, and product applications (including any warnings) before use.

Grout Maintenance:

Neither sealing the grout nor using a 100% Epoxy Grout will guarantee against surface build-up or discoloration of the grout. Grout needs to be cleaned on a periodic basis to remove any surface build-up. Routine grout cleaning can be done with a daily concentrated household or commercial cleaner depending on the application. When heavy duty grout cleaning is required, you will need to use a professional strength Tile & Grout Cleaner that is capable of removing grease, soap scum, body oil, mildew stains, algae, and synthetic or acrylic waxes from the grout joints. However, such a product should contain non-polluting chemicals and low VOC levels. This type of product can be purchased from most Home Centers, or through your local professional Floor Covering Dealer.

Grout Color Restoration:

When grout has been stained to the point that it cannot be maintained or returned to its natural color, you can return the grout back to its original color or any other color through the use of a "grout stain". Grout Stains are epoxy-based products that are specifically designed to penetrate into the grout and seal the surface with a permanent color. Once the grout has been stained there is no need to seal it any further with a penetrating/impregnating sealer. Prior to staining, the grout joint should be cleaned thoroughly to remove any dirt, oils, grease or sealers with a professional strength Tile & Grout Cleaner. This can be purchased from most Home Centers or through your local Professional Floor Covering Dealer.

How to Tile Stair Risers

Step 1: Tape a Piece of Cardboard

For the stair risers, tape a piece of cardboard on the step to keep it free of thin set.

Step 2: Sand the Risers

Sand the risers before applying the tile.

Step 3: Use Right Type of Thin Set

In order to get stone tile to stick to wood, be sure to use a thin set recommended for use on plywood for the stair risers if wood is the substrate.

Note: EGP thin set mortar is a thin set designed for use on "exterior grade plywood."

Step 4: Back Butter the Tiles

It's easier and cleaner in small spaces like this to back butter the tiles before laying them. There will be less mess on the stair treads by doing it this way as well. Be sure to wipe away any extra thin set with a margin trowel.



Step 5: Place the Tile on the Riser

Place the tile firmly on the riser, and use a rubber mallet and beating block to "lightly" tap the tiles in place. Continue setting the tiles until the stair risers are done.

Replace a Ceramic Tile

Tools & Materials

Tools

Electric Drill

Masonry Bit

Grout Saw

Carbide Tipped Chisel

Hammer

Razor Knife

2-inch Plastic Putty Knife

Sponge

Work Gloves

Eye Protection

Materials

Replacement Tile(s)

Tile Adhesive and Grout

Know Before You Start

- Matching your broken tile may be difficult if it's an unusual shade, size, or texture. If you don't have any extra tiles from the original installation, consider removing a chunk of the broken tile and taking it to the store to find a match.
- Having a sample of the existing tile also helps you match it for thickness. You can add mastic to raise a replacement tile that's too thin, but a tile that's too thick calls attention to the repair.
- Breaking the old tile can scatter jagged chunks and small, sharp slivers. That makes work gloves and eye protection critical.
- Debris from this project also can scratch acrylic tubs and showers. To protect them, place an old blanket or thick protective cloth beneath your work area and tape one edge to the wall beneath where you're working. Then tape a paper or plastic sack beneath the broken tile to catch falling pieces as you work.
- If the tile was applied directly to drywall, removing it can easily damage the drywall. Work carefully to minimize gouges and tears and avoid damaging the subsurface by gouging the gypsum.

About the Grout

A quart container of premixed combination grout / adhesive makes these small patch jobs easy and inexpensive, but it's not always the best product for the job. If the broken tile is in a shower, for example, check the label to make sure you can use it there. For areas that will regularly get soaked, you may need a separate tile adhesive and grout or a tile repair kit designed for damp areas.

The first thing you'll notice while grout shopping are the terms "sanded" and "non-sanded." The one to choose depends on the width of your grout:

- Either works for grout lines 1/8 of an inch wide.
- For wider grout lines, use a formula with sand to help bridge the gap.
- For tile spacing less than 1/8 of an inch, use grout without sand to fill those small gaps.

Match Old and New Grout

Place a small amount of replacement grout or adhesive/grout compound on a piece of cardboard and allow it to dry overnight. Compare the replacement grout color and texture to the original after it's been cleaned. If the colors are too different, switch to a grout mix that's closer to the original. For example, switching from a grout without sand to one with sand may reduce the brightness of the color.

Going from Old to New

Step 1



Before tile removal begins, you need to remove the grout surrounding the tile. This greatly lowers the risk of chipping the glaze on adjacent tiles. Using a grout saw, scrape away as much grout around the tile as possible. Work slowly to avoid damaging the drywall or backing underneath. Creating this gap around the tile keeps the force of chisel blows on the broken tile from breaking the adjoining tiles.

If your grout lines are $\frac{1}{8}$ of an inch or narrower, check the adjoining tiles to make sure your grout saw won't chip the tiles' edges. If so, unscrew the blades and remove the saw-shaped insert for a narrower cut.

Step 2

Wear safety glasses! Chips can fly causing permanent eye damage.



Once the grout is removed around the tile you are replacing, place some towels or tarps around the work area, as tile chips can fly far. First, use the corner of the carbide chisel to create small dimples, which will keep the drill bit from skipping across the tile. Use a masonry bit in an electric drill to bore a series of holes in the center and along the edges of the old or damaged tile, staying about 1/2 inch away from the grout joints. The holes will help the tile break out in small pieces and protect the adjacent tiles from cracking. Place the tip of your chisel near the center of the tile and give it a light tap. Hammer as gently as you can, Pounding may cause cracks in the tile's substrate (backer board, mortar bed) to travel, damaging additional tiles.

Step 3



Do not hammer in the grout joints because this may chip the adjacent tile. After all the pieces have been removed, carefully carve off any remaining grout with a razor knife.

Step 4

With all of the tile and adjoining grout removed, use a stiff-bladed putty knife to free any loose mastic still attached to the subsurface. It doesn't need to be perfectly smooth, but it must be free of anything that would keep the replacement tile from resting flush with the others. If your substrate is a soft material, like dry wall or plaster, scrape carefully so you won't damage it. Too much damage, and you'll have to replace the backing, which is a real hassle. Finish by vacuuming dust from the opening.

Step 5



Test-fit the replacement tile in the opening and check that its surface rests slightly below that of the surrounding tiles. You don't need any fancy tools for this job; your fingertips will sense the differences in thickness. Apply an even 1/8-inch layer of tile adhesive or a combination adhesive/grout product on the back of the tile. (It's called "buttering" the tile, even though it goes on more like creamed cheese.) Press the tile into position, centering it in the opening.

Caution

Avoid adhesives that aren't specifically designed for tile. Tile adhesives spread and flatten as you push the tile against the wall or floor, supporting it evenly from underneath. They also help keep the tile from sliding out of place until the adhesive hardens.

Step 6

Check the tile position immediately and confirm that it aligns with the surrounding tiles. Tape the replacement tile to the surrounding surface to hold it in position. Allow the adhesive to dry overnight or as recommended by the manufacturer.

Step 7



Use a premixed grout/adhesive or mix grout to the consistency of peanut butter and use the tip of a plastic putty knife to press it into the grooves surrounding the tile. Also, fill any grout areas damaged during removal of the tile.

Step 8



For a job this small, use your fingertip as a grout-smoothing tool to level it with the tile edges. Use a moist sponge to smooth the grout even with the tile edges and wipe away the excess. Avoid exposing the repair to moisture for several days as the grout hardens.

Step 9

After about a week, apply grout sealer to the new grout to protect it from moisture. Allow a few extra hours to clean and seal the grout around the surrounding tile surfaces as well for long-lasting protection.