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Emily Lorenz, PE, F-ACI, is an independent consultant in the areas of life-cycle assessment (LCA), environmental product declarations (EPDs), product category rules (PCRs), green building, and sustainability. She serves as an engineer in the areas of green structures and practices, energy efficiency, thermal properties, and moisture mitigation. Lorenz also specializes in building code and standards work and advocacy. She actively participates as vice-chair of the Envelope Subcommittee developing the commercial provisions of the 2024 International Energy Conservation Code (IECC), and as a voting member of several committees including the 2024 IECC Commercial Committee; the Envelope Subcommittee of ASHRAE 90.1; ASTM International Committee E60, Sustainability; the American Concrete Institute's (ACI's) building code subcommittee on sustainability; ACI Committee 130, Sustainability of Concrete; Joint ACI-TMS Committee 122, Energy Efficiency of Concrete and Masonry Systems; Joint ACI-ASCE Committee 550, Precast Concrete Structures; and several other technical associations and committees. She also serves as an expert to ISO TC59\SC17\WG3 Environmental Declarations of Products. Lorenz received her BS and MS in civil engineering (structural emphasis) from Michigan Technological University, Houghton, MI, USA.





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Life-Cycle Costs for Flooring in Commercial Buildings
Floor Covering Comparison Study

The Tile Council of North America commissioned an independent consultant, Emily Lorenz, PE, F-ACI, to conduct a Life Cycle Cost Analysis study.

Introduction

There are several methods available to evaluate and compare the economic performance of products or systems. For this study, life-cycle cost analysis (LCCA) is used to compare 18 flooring types installed in a typical office building. For the purpose of this study, a typical office building is defined according to the commercial building characteristics included in the 2018 Commercial Buildings Energy Consumption Survey from the U.S. Energy Information Administration. The LCCA was conducted according to ASTM E917-17, Standard Practice for Measuring Life-Cycle Costs of Buildings and Building Systems.

An LCCA is a powerful tool to aid decision makers in evaluating all relevant costs for a given building system. Costs are summed in terms of either present values or annual values over a specified period of time; for this study, present values are used. This allows for comparison of the construction and maintenance costs of alternative building systems that meet the same functional requirements. In this study, the functional requirements of all flooring types are that they are fit for use and provide adequate durability and cleanliness for light to medium commercial use in office space.

This is not to say that all flooring types naturally receive the same soil load, wear pattern, or abrasive conditions, nor is their appearance similar. As such, soil conditions and appearance affect the maintenance cycle and expectations for each product category. For example, marble and other stone flooring are often used in areas where foot traffic and abrasive conditions are frequent (for example, commercial building lobbies), yet are generally expected to have a highly polished finish. Because of this, maintenance for stone flooring is more involved than materials such as carpet, for example, which has a different expected appearance and soil load.

Eighteen Flooring Types of the Study	
CSI Designation	**Flooring Types**
09 30 13	Ceramic Tile
09 30 13	Quarry Tile
09 30 13	Porcelain Tile
09 62 19	Laminate
09 63 40	Marble
09 63 40	Granite
09 63 40	Travertine
09 63 40	Limestone
09 64 19	Engineered Wood
09 64 29	Solid Wood
09 65 16.23	Sheet Vinyl
09 65 19.19	Vinyl Composition Tile (VCT)
09 65 19.23	Flexible Luxury Vinyl Flooring (LVF/LVP)
09 65 19.43	Rigid Core Flooring (RCB, SPC, WPC, etc.)
09 66 13	Epoxy Terrazzo
09 67 23	Poured Epoxy
09 68 13	Carpet Tiles/Carpet Squares
09 68 16	Nylon Broadloom Carpet

Table 1

Although this study was based on flooring use in light to medium commercial applications, many of the results would be applicable to residential applications as well. Differences in wear and cleaning routines between residential and light to medium commercial applications are similar for the eighteen flooring types studied, with the primary difference being an increased loading for commercial applications attributed to more frequent rolling of carts and higher pedestrian traffic.

A note about conservative assumptions: This study was primarily funded by the Tile Council of North America (TCNA) although with financial and technical support from several industry associations representing other

flooring types. While the selection of engineering parameters was made by the author without influence from TCNA or others, as a condition of undertaking this report and to avoid any suggestion of bias favoring the source of primary financial support, in the evaluation of any data ambiguities, any reasonable choices that could potentially favor the selection of flooring types other than ceramic, porcelain, and quarry tile were preferred. These choices are identified and referred to as conservative assumptions within the author's full report available at http://bit.ly/3UBUPHF.

The 18 types of flooring considered in this LCCA are listed in **Table 1**, ordered by their CSI designation.

For this study, annual 2020 costs were chosen because they represented the most-current values that were not influenced by COVID-19 pandemic-related fluctuations. When cost data were not available in the RS Means database, online searches of cost data from big-box retailers were used or industry sources were consulted to approximate cost data in relation to available RS Means data.

Basic LCCA Criteria

As consumers look toward more-sustainable and durable products, it is common to consider the impacts and costs over the full life cycle of a building. When evaluating the environmental impact of a material, both the International Green Construction Code (IgCC) and ASHRAE 189.1, Standard for the Design of High-Performance Green Buildings, use a 75-year period of analysis. In keeping with those standards, a 75-year study period was used for this analysis. To check the sensitivity of the analysis however to this study period, additional analyses were run with a study period of 40 years.

To compare future costs, such as maintenance and replacements, occurring at different times over the life of a building, such future costs are "discounted" back to their net present value. That is, the discount rate reflects what a dollar today will be worth in the future with interest, and conversely, what an expense in the future would cost today if those dollars today were saved and interest earned on them. Per ASTM E917, "The discount rate is used to convert costs occurring at different times to equivalent costs at a common point in time."

A real discount rate of 3% was used for this study, which is expressed in terms net of general price inflation. This means whatever cost increases occur in the future due to inflation, this study assumes the rate of interest to be three percentage points greater than that inflation.

The 3% real discount rate was chosen based on Lavappa and Kneifel (2018), which set the real discount rate based on "long-term Treasury Bond rates averaged over 12 months and the general inflation rate." In its Technical Note 2032 rev 2, the National Institute of Standards and Technology notes that average discount rates range from -0.5% to 7% (NIST 2021). To check the sensitivity of this LCCA analysis to this discount rate, additional analyses were run at discount rates of 0%, 5%, and 7%.

Summary and Results

The following chart summarizes the installed cost for each flooring type, the lifetime cost in net present dollars for each flooring, the reference service life for each flooring, and the cost per year averaged over the full building life. Costs associated with daily cleaning practices common to all flooring types, whether regular dusting, mopping, or vacuuming, were assumed to be the same and were equally applied to each material's life cycle cost. For those flooring types that did not have an estimated service life that was a multiple of the study period, a residual value was calculated at the end of the study period and subtracted from the net present value. The residual value is calculated as a percentage of the initial cost discounted back to the net present value from 75 years.

Compared to costs presented above using a 3% discount rate, a higher discount rate decreases the impact of future costs on the net present value. Conversely, a lower discount rate increases the impact of future costs.

Shortening the building life from 75 years to any lesser number puts greater emphasis on the cost of the initial installation and eliminates the impact of maintenance and replacements beyond the study period (in this case 40 years). However, the cost per foot per year for all floorings goes up as the costs are not amortized over the longer building lifetime.

Life-Cycle Costs for Flooring in Commercial Buildings				
Material Type	**Initial Installation Cost[1] (per sq.ft.)**	**Life Cycle Cost[2] (per sq.ft.)**	**Estimated Useful Life**	**Cost Per Year[3] (per sq. ft.)**
Quarry Tile	$9.53	$71.31	75 years	$0.95
Ceramic Tile	$11.03	$72.81	75 years	$0.97
Porcelain Tile	$11.38	$73.16	75 years	$0.98
Solid Wood	$8.92	$75.78	75 years	$1.01
Engineered Wood	$7.92	$78.76	25 years	$1.05
Limestone	$24.30	$101.68	75 years	$1.36
Travertine	$24.30	$101.68	75 years	$1.36
Granite	$26.65	$102.69	75 years	$1.37
Marble	$26.65	$104.03	75 years	$1.39
Nylon Broadloom Carpet	$5.86	$125.41	5 years	$1.67
LVF	$4.56	$131.66	15 years	$1.76
Carpet Tile	$5.25	$132.57	5 years	$1.77
Rigid Core	$6.36	$136.13	15 years	$1.82
Epoxy Terrazzo	$13.66	$137.22	75 years	$1.83
Laminate	$8.49	$138.45	20 years	$1.85
Poured Epoxy	$11.49	$155.91	15 years	$2.08
VCT	$3.09	$159.48	15 years	$2.13
Sheet Vinyl	$7.10	$169.46	15 years	$2.26

Table 2
Costs calculated for light to medium commercial use in office space.
[1] Initial installation costs are the addition of the material and labor costs for each respective material type.
[2] Life cycle costs are expressed as net present values (NPVs).
[3] Costs per year are the life cycle costs for each respective material divided by the length of the study period (75 years).

In total eight analyses were performed

- 3% Discount rate with a 75-year study period (presented in **Table 2**)
- 7% Discount rate with a 75-year study period
- 5% Discount rate with a 75-year study period
- 0% Discount rate with a 75-year study period
- 7% Discount rate with a 40-year study period
- 5% Discount rate with a 40-year study period
- 3% Discount rate with a 40-year study period
- 0% Discount rate with a 40-year study period

In all cases, quarry tile, ceramic tile, porcelain tile, solid wood and engineered wood cost less per year than all other floorings. Also, in all cases, poured epoxy, VCT, and sheet vinyl cost more than all other floorings.

For flooring products between these least and most expensive categories, some of the relative rankings moved slightly depending on the discount rate and study period. As an example, using a 0% discount rate and a 40-year study period, the only changes from the table above using a 3% discount rate and 75-year study period were that granite had a lower life-cycle cost than limestone and epoxy terrazzo had a lower life-cycle cost than LVF. To see all the analyses, refer to the author's full report available at http://bit.ly/3UBUPHF.

For specific projects using a building lifetime different than those above, or for different discount rates, or different installed costs and maintenance costs, please contact IPALaboratories at **info@IPALaboratories.com** for a project-specific lifecycle cost analysis.

Life-Cycle Costs for Flooring in Commercial Buildings

Tile: The Modern Flooring Option



Today's family appreciates the modern style and convenience of ceramic tile flooring.

Ceramic tile has evolved. While tile has always been known for its durability and ease of maintenance, it is now also recognized for cost savings, functionality, health benefits, and sustainability advantages. Manufacturing advances in digital imaging have revolutionized tile design, creating virtually limitless design options. Ceramic tile's many advantages plus array of styles make it now the ultimate modern flooring option.

21st Century Style

Ceramic tile offers a large variety of shapes, colors, sizes, textures, and surface patterns. Additionally, digital imaging allows a manufacturer to print a design or image directly on the tile's surface before it is fired. This process bakes into the tile any color, or design you can imagine.

With this innovative technology, ceramic tile options also include surface textures such as wood, marble, granite, slate, and even fabric textures such as linen and suede.

The variety of ceramic tile styles allows you to match any aesthetic, including the ability to customize a tile design and/or installation pattern for one-of-a kind projects.

> Ceramic tile has the lowest life cycle cost of any flooring — making it a great investment for home and business owners alike.

Long-Term Savings

Flooring products come in a wide range of prices and budget is always a contributing factor in a flooring decision. Consumers can choose confidently when using ceramic tile.

A study by Emily Lorenz, PE, F-ACI, an independent cost consultant, analyzed the life cycle costs of various flooring options, including tile, hardwood, laminate, carpet, vinyl, and other popular choices. After appraising initial installation costs, replacement costs where relevant, and custodial maintenance expenses, for each option over its entire life cycle, the study found tile to be the most affordable flooring type. In fact, all types of tile cost less than $0.99 per square foot per year while poured epoxy, VCT, and sheet vinyl flooring were the most expensive over the life of a building. Nylon broadloom carpet, carpet tile, luxury vinyl flooring and

rigid core vinyl flooring were also significantly more expensive than the tile options.

Functionality You Can Trust

Nonflammable ceramic tile will not melt like some vinyl flooring should there be an unfortunate incident with heat. And, if that incident erupts into a fire, ceramic tile won't smoke, burn, or emit toxic fumes and can help reduce the spread of flame. This advantage is especially important for maintaining a clear and safe exit path during a fire. Along with heat-resistance, many tile options are also frost resistant, which gives ideal functionality in extreme temperature conditions, for use indoors and out.

Further, ceramic tile manufacturers can communicate areas of use based on the slip resistance characteristics of their products and classify their products into one or more of five product use cateories. These cateories, categorized under ANSI A326.3, serve as a guide to the general public, manufacturers, distributors, specifiers, architects, contractors, testing laboratories, building owners, and other businesses and professionals. Ceramic tile offers a variety of sizes and finishes to choose from to meet the functionality needed for potentially slippery conditions.

Sustainability

Versatile, durable, low-maintenance, safe, and healthy ceramic tile flooring is the flooring of choice, especially because it is also environmentally-friendly.

The following benefits make ceramic tile one of the most eco-friendly flooring options available:

Energy efficiency: Ceramic tile's intrinsic thermal mass decreases peak heating and cooling in your home, thus limiting temperature swings, reducing the need for your HVAC system, and saving energy.

Lowest carbon footprint in North America: Ceramic tile made in North America is typically made with materials found within 500 miles of the manufacturer, decreasing necessary transportation and associated greenhouse gas emissions and energy. This contributes to North American ceramic tile having the lowest carbon footprint of all flooring options.

Healthy Benefits of Ceramic Tile

HEALTHY HOME

Allergen free Ceramic's nonporous surface doesn't allow allergens in the environment such as dust, dirt, and pollen to penetrate.

No PVC Polyvinyl chloride is a resin found in some vinyl flooring that contains phthalates and organotins, both a concern among health experts.

No formaldehyde Certain levels of formaldehyde can irritate asthma and other respiratory disorders. Ceramic tile does not contain formaldehyde.

Bacteria-resistant Ceramic tile is inhospitable to the growth of bacteria.

Nontoxic Ceramic tile doesn't emit any toxic fumes when exposed to heat or fire.

No VOCS Volatile organic compounds are harmful gases that may cause various health concerns and are emitted by many non-ceramic flooring types.

HEALTHY CLEANING

Easy to clean Wiping with some soap and water is all that's needed to clean up most messes — no harsh chemicals are necessary.

Antimicrobial Options can suppress and even destroy harmful microorganisms, such as mold, fungi, bacteria, and viruses.

Scratch-resistant Dents, scrapes, and cuts often seen in other materials aren't the same danger for ceramic tile.

Stain-resistant Your life is bound to see many messes—ceramic tile doesn't stain easily!

HEALTHY PLANET

Lowest carbon footprint Lowest global warming potential and lowest fossil fuel resource depletion in North America.

Lowest life cycle cost Less replacement costs compared to other flooring materials.

Recycling Pre- and post-consumer recycled options are available.

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Recycling: Because ceramic tile is made of naturally occurring materials, it typically meets the requirements for clean fill. Disposing of ceramic tile means you are not contributing to the growing landfill problem associated with plastics.

Endurance: Tile's lifetime can span generations. This durability limits the need to create new flooring materials, which would require additional resources.

Green Squared Certified® is a multi-attribute sustainability standard that uses the American National Standards Institute (ANSI) process to evaluate the sustainability of tile and tile installation products. Green Squared uses the transparency and consensus of the ANSI process combined with third-party certification to evaluate, validate, and communicate products that have a positive impact on the environment and society.

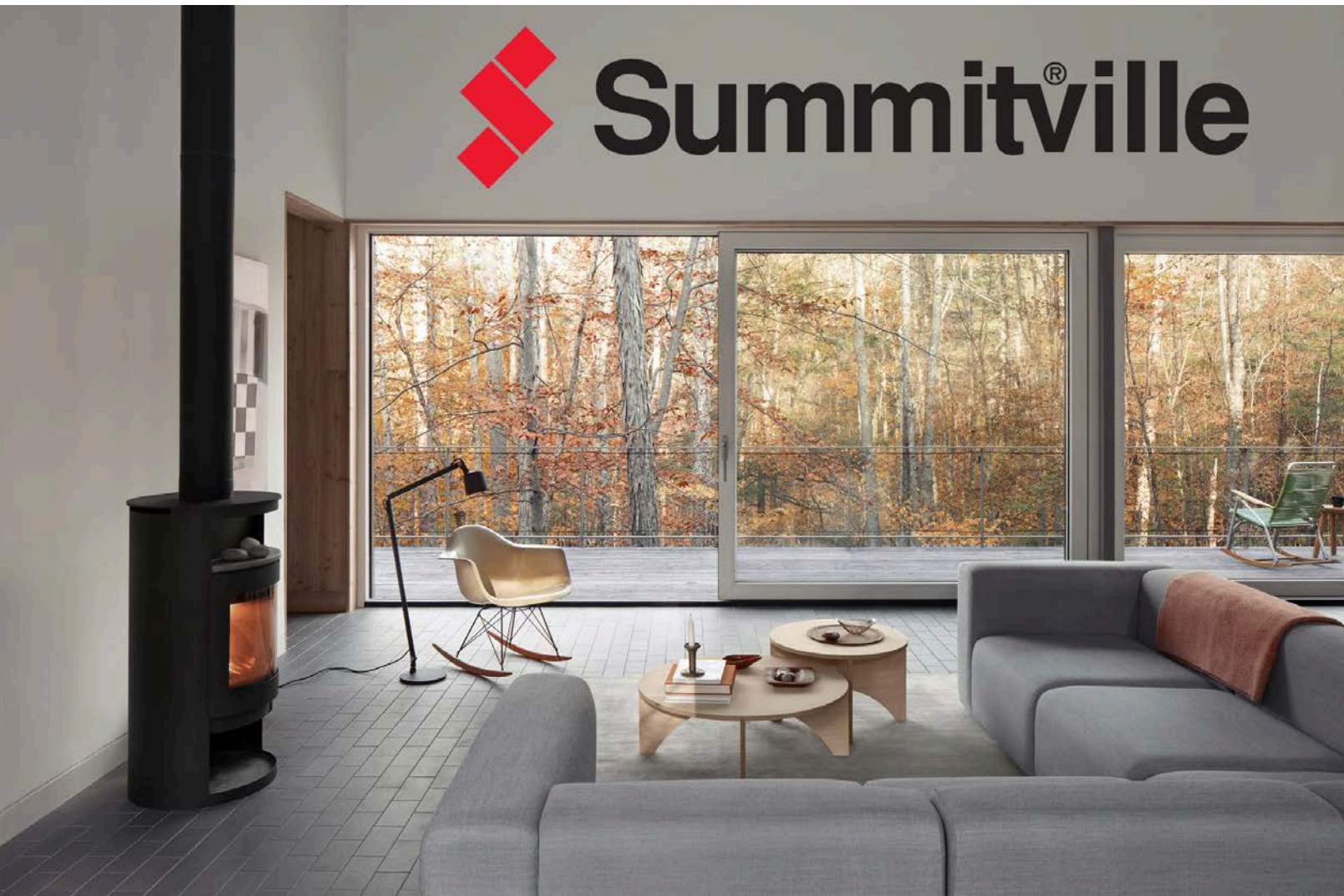
Use GreenSquareCertified.com's free search tool to help you locate green squared certified products. Look for the Green Squared Certified® emblem on the packaging of tile products you are planning to purchase for easy recognition of sustainable tiles and tile installation materials.

The Green Squared certification has established sustainability criteria for products throughout their full life cycle, including manufacturing, end-of-use management, corporate governance, and new technology.

Low Maintenance

In today's fast-paced world, efficiency has become more important than ever. No one wants to spend countless hours polishing floors, spot treating carpets, or dealing with the hassle of replacing damaged vinyl. The flooring option of today needs to facilitate a dynamic lifestyle rather than hinder it.

When it comes to beautiful materials for your project, stylish looks may often come with the price of high-



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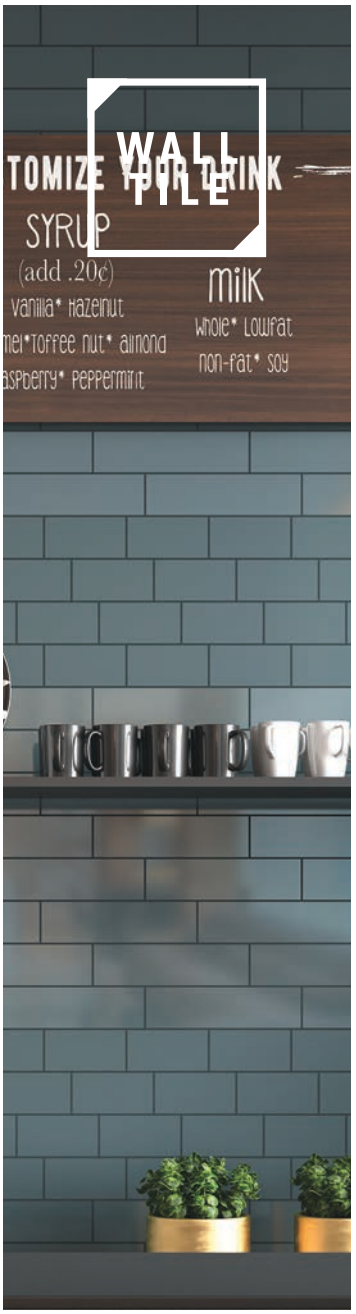
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maintenance care, but that doesn't have to be the case. Ceramic tile's limitless design possibilities are matched by performance and functionality, including the following low-maintenance, cost-saving benefits.

Dirt & Allergen Resistance: Ceramic surfaces do not harbor dirt, dust mites, pollen, bacteria, fungi, mold, or other irritants like some other flooring types. Instead, these allergens can be merely swept or wiped away.

Having surfaces clear of allergens helps prevent them from circulating in the air and contributing to poor indoor air quality — important for any home, but especially so for allergy sufferers!

Stain resistance: When simmering spaghetti sauce splashes on your kitchen backsplash, the cat knocks your coffee cup onto the floor, or a bottle of wine drips on your ceramic tile counter, you can generally clean up the mess with water alone and no worries about permanent discoloration.

Water resistance: Ceramic tile is unaffected by moisture. Further, properly installed and maintained ceramic tile can form a water-resistant system, which makes ceramic surfaces a trusted choice for moisture-prone applications

Ultimate Guide to Cleaning Ceramic Tile

Sweep Step one in caring for your ceramic tile is to simply sweep away dirt and debris that may be tracked in by our feet (or paws) each day. If you are using throw rugs, it's a good idea to clean throw rugs regularly. Likewise, for your ceramic tile countertops, be sure to brush off any crumbs or other debris from the counter, just as you would the floor.

Sweeping gives you the best start possible for any further cleaning or disinfecting necessary.

Wipe with Water After sweeping, wipe down tile with a cloth and clean, clear water. Yes, all that's needed is clean water to wipe up most messes! Because ceramic tile is nonporous, wiping it down is usually sufficient to remove lightly soiled surfaces. *Be sure to thoroughly dry afterward.*

When Water Is Not Enough Sometimes things end up on your tile that you cannot sweep away or wipe off with water. Grease from cooking is a common culprit. Or, you may want to disinfect your surfaces. If you find that you do need something more than water to clean up, use a neutral cleaner that's formulated especially for grout and tile. Do not use oil or wax-based cleaners, as they will leave a residue on your tile and grout that then attracts dirt more readily.

Elbow Grease Scrubbers made of nylon or plastic do a great job of removing stains from grout.

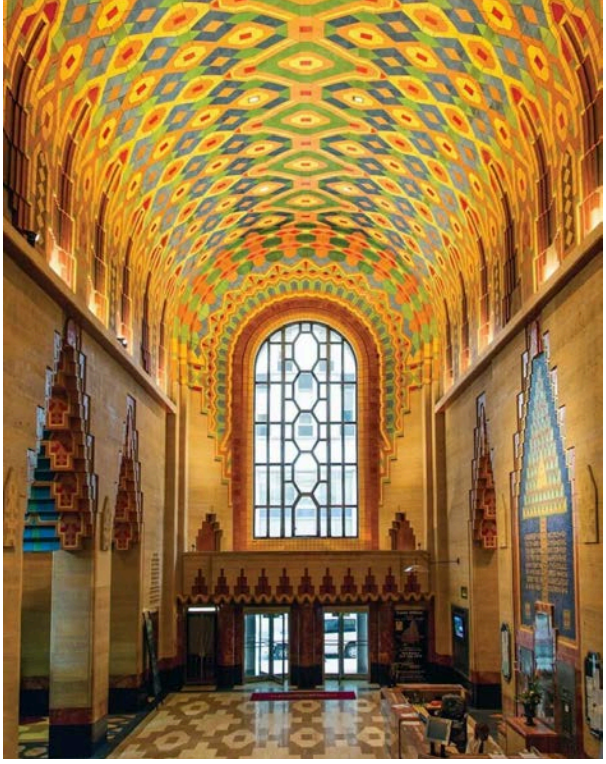
If your grout has mildew stains that you cannot scrub out, water may have gotten into the grout, perhaps because the sealant has worn down. You can rent a steam cleaner that will bring the stains to the surface of the grout, where you can clean them off. The last resort is to remove and replace the grout, but consider consulting with an expert beforehand to determine the best course of action.



Disinfecting Unlike many other surface materials, ceramic tile won't fade or dull from harsher cleaning chemicals and disinfectants, should you need to use them occasionally. The Environmental Protection Agency has a list of registered cleaning disinfectants you can consult. Should you not have any of these registered products, some common household products—including simple soap and water—can also be effective disinfectants. Each cleaning agent may be more or less effective towards a particular virus or bacteria.

Simply Clean Ceramic tile is simple to maintain and keep clean as long as you follow the basics. Keep these tips handy with this foldable download tip sheet. Sweep and wipe down with clean water at least weekly, or as necessary. When you need more cleaning power, stick to neutral or mild alkaline cleaners specially formulated for tile and grout. Last but not least, rinse thoroughly, making sure to remove all residue and dry the area well.

Follow these guidelines and your ceramic tile and grout will stay sparkling clean!



Examples of ceramic tile's durability are all around us, in our most treasured buildings.

such as kitchens, bathrooms, showers, backsplashes, countertops, swimming pools, and outdoor spaces.

Scratch resistant: No need to be extra cautious to protect your ceramic tile, and you also needn't worry about the dirt that can accumulate in scratches and dents such as with nonceramic surface materials. Tile's hard-fired surface is incredibly durable, making it resistant to scratches, scrapes, scuffs, dents, chips, and cuts — even after years of heavy use.

Resistance to Bacteria and Microbe Growth: Bacteria and fungi need to feed on an organic substance in order to grow. All ceramic tile is inorganic and naturally resists the growth of bacteria. Some ceramic tile options have antimicrobial properties, which can suppress and even destroy harmful microorganisms, such as mold, fungi, bacteria, and viruses.

Fade resistance: Color-leaching UV rays from the sun can fade some other flooring materials. Ceramic surfaces, however, have the color baked directly into the tile's clay body (for unglazed tile) or its glazed surface (for glazed tile), making it "color permanent." The result: ceramic surfaces don't fade from the sun, even if exposed to direct sunlight.

Easy Cleaning: Bacteria resistance, stain resistance, and scratch resistance make cleaning a breeze. You can clean up most messes by merely sweeping and wiping with water. Need a little extra cleaning power? Look for a neutral cleaner made specifically for tile and grout.

With all of these low-maintenance benefits, it's no wonder that ceramic tile has one of the lowest life cycle costs of any flooring.

Historic Durability in Modern Form

Tile has a heritage that no other flooring option can match. From ancient empires to modern mansions, we've continued using ceramic tile because of its incredible durability and the beauty of craftsmanship that only comes with hand-laid ceramic tile. The cost study conducted by Emily Lorenz, PE, F-ACI, lists tile as one of the longest-lasting flooring options available. When compared to all vinyl flooring (LVF, rigid core, sheet and VCT), engineered wood, carpet, laminate and poured epoxy, ceramic tile lasts three to five times longer.

The Floor of the Future

As trends change and other flooring types fall in and out of favor, ceramic tile has remained one of the most trusted flooring solutions. With the help of modern manufacturing developments, ceramic tile will continue to stay in the forefront of technology to offer unmatched versatility and design.



Contemporary designs rely on durable materials that look timeless with any decor style.



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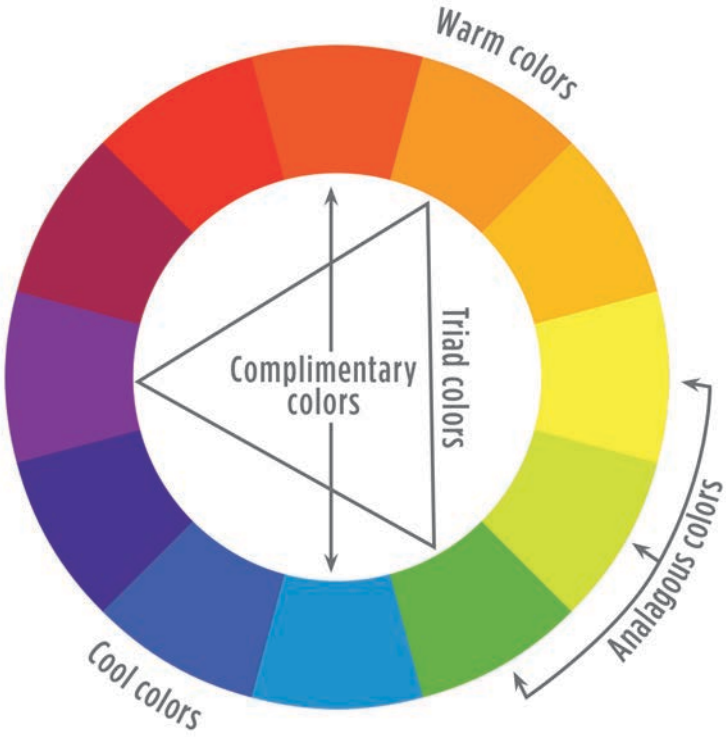
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Color Psychology: How Your Tile Color Affects Your Mood

Choosing tile colors for your decor is fun and creative. Simply, we recommend you choose a tile color you love. Of course, you'll want to choose a color that works well for your space, matches the rest of your decor, and is something that you'll enjoy looking at every day. These parameters will help you narrow your choices. Yet another thing to consider is how a particular tile color may make you feel.

Color psychology is a powerful interior design tool that takes into consideration the various emotions associated with a given color. Colors may affect how you feel, think, and act, so a crucial step in choosing the right tile color is to consider what kind of atmosphere you want to create in a given space and which color will best help achieve this atmosphere.



The Color Wheel

In physics, color is understood as our eyes' and brain's response to wavelengths of light reflected off of objects.

When we think of color, we often think of the paint color wheel, which posits that red, yellow, and blue are the primary colors from which all other colors are derived. Combine the primary colors and you'll create the secondary colors of green, orange, and purple (or violet). Combinations of all of these colors create the tertiary colors and complete the color wheel: yellow-green, blue-green, blue-purple, red-purple, red-orange, and yellow-orange.

Understanding the following color wheel basics can help you use the color wheel in interior design:

Complementary colors: Colors that sit directly opposite each other on the color wheel (such as violet and yellow or orange and blue) are complementary colors and typically work well as accent colors.

Triads: Triads are colors that form a triangle on the color wheel, such as red, blue, and yellow or violet, green, and orange. While triads can work as accent colors, they need to be balanced to avoid overwhelming the space.

Analogous colors: Analogous colors are groups of three colors that sit right next to each other on the color wheel, such as green, yellow-green, and yellow.

Monochromatic colors: Monochromatic color schemes involve just one color, but can include varying shades — for example, ranging from mint green to forest green.

Cool and warm colors: Cool colors include blues, greens, and purples — colors that remind us of water or grass and thus evoke a cool feeling. Warm colors — reds, oranges, yellows, and pinks — remind us of fire or the sun, evoking a warm feeling. The use of cool or warm hues can help create a certain mood in a space.

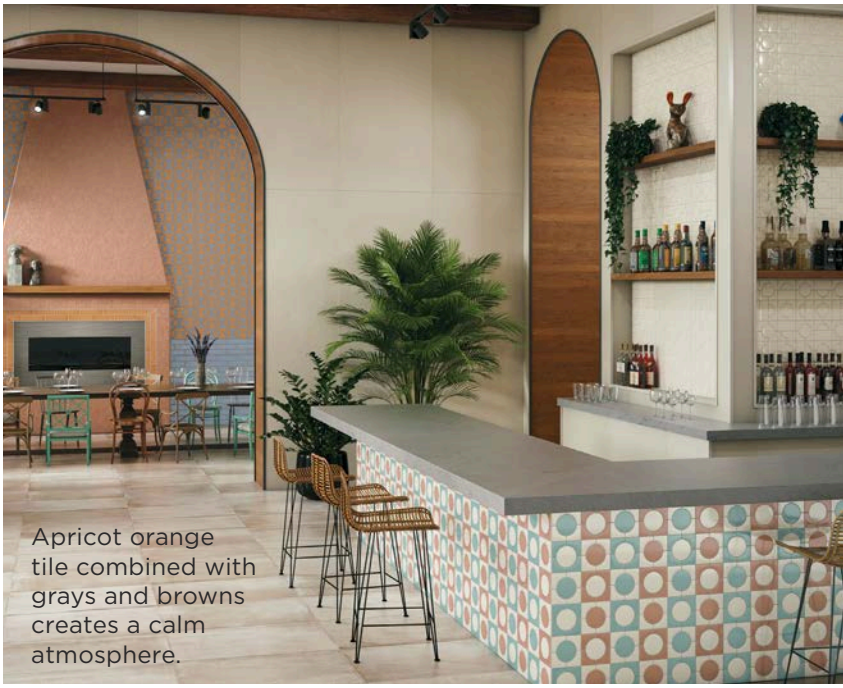
Noncolors: Noncolors are hues that aren't on the color wheel (such as white, gray, black, beige, and brown), but are still important to interior design.

Tile Color Psychology

Red Tile: Beginning with what's arguably the boldest color on the color wheel, red tile is simultaneously evocative of love, passion, and desire and of determination, power, energy, strength, danger, and war. Think of red tile as a tool to heighten the senses, raise energy levels, and stir up excitement — the kind of color that creates a memorable first impression and gets people talking.

Red tile can work as a great accent to warm up a "cool" space, or can create a dramatic impression when used in larger applications or for an entire room (think of a red tile alcove or bathroom). Kitchens and dining areas can also benefit from red tile, since red is thought to increase appetite. When used for a tile feature wall, red can visually change the proportions of long and narrow rooms.

Combine red tile with other colors to alter its impact. For example, when combined with soft grays and magentas, red can make a space feel feminine and cozy. Earth tones paired with a rustic red tile make for a warm and natural feel. In general, purple-reds emote quiet and intimacy and orange-reds are energizing.



Apricot orange tile combined with grays and browns creates a calm atmosphere.

Pink has become the brand color for breast cancer, and pink tile is following suit as a trending way to add elegance and feminine strength to home decor. Pastels such as blush tile create serene and sophisticated style, bold hues establish boho and industrial chic looks, and orangish pinks such as coral tile lend vibrant, buoyant, yet comforting vibes.

Orange Tile: If your space needs a burst of energy,

Red



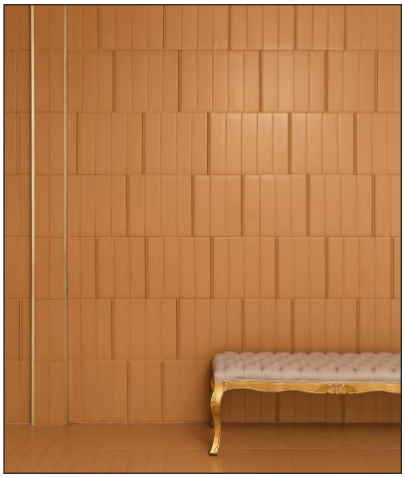
Light red: Love, passion, sexuality, sensitivity, and joy

Pink: Love and friendship

Reddish brown: Fall and harvest

Dark red: Willpower, vigor, courage, leadership, and longing

Orange



Bright orange: Adventure, warmth

Red-orange: Action, domination, pleasure, passion, and desire

Dark orange: Confidence, ambition

Gold: Prestige, wisdom, illumination, and wealth

Yellow



Light yellow: Joy, intellect

Bright yellow: Optimism

Deep yellow: Sophistication

Dull yellow: Jealousy, sickness, decay, and caution (rarely used in interior design)



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orange tile may be the right choice for you. Orange is reminiscent of the tropics, sunshine, and joy and emotes happiness, enthusiasm, encouragement, fascination, creativity, success, determination, stimulation, and attraction. It combines the warm and welcoming aspect of yellow with the excitement of red, with varying effects depending on the shade:

While people tend to either love or hate the color orange, executive director of the Pantone Color Institute and color expert Leatrice Eisemen explains that orange is working its way up the ladder of consumer preferences — so we may see more orange tile in future projects.

Orange tile can be overwhelming if used for large applications, so consider it as an accent color or for small applications such as a backsplash. Like red, orange stimulates appetite, making it a great tile color for kitchens. Orange is also ideal for rooms that require a lot of energy, such as exercise rooms.

In general, the brighter the shade of orange, the less of it you need. Likewise, paler and more muted oranges — such as apricot, peach, terra cotta orange, and dusty orange — are ideal for larger tile applications and more relaxing spaces such as bedrooms.

Consider mixing a bright orange tile with yellow and pink accents to invoke energy and excitement, and apricot orange tile with deep grays and browns for a calmer atmosphere. Pair orange tile with gold, brown, and red tile accents or other interior decor for a harvest or fall feel.

Yellow Tile: The color of sunshine, yellow tile promotes energy, happiness, joy, and intellect. Yellow is even said to spark communication and creativity and stimulate the memory and nervous system. However, choosing the right shade of yellow is crucial, as dull yellows can be more de-energizing than uplifting, and too-bright yellows can be overwhelming:

Yellow tile is ideally suited for bathrooms, kitchens, and dining areas. Because yellow creates the illusion of light, yellow tile is also a great choice for hallways and other windowless rooms — just look for a strong, saturated yellow shade.

The wide variety of shades of yellow tile allows much design versatility: Earthy yellow tile with purple and terra cotta colors makes for a relaxing vibe. Deep yellow tile and gray accents makes for a sophisticated space.

Green Tile: The color of grass, leaves, and other natu-

Green



Olive green, sage green: Peace

Dark green: Ambition

Yellow-green: Joy and cheeriness

Aqua: Protection and emotional healing

Blue



Light/pastel blue: Understanding, healing, health, tranquility, and softness

Midnight blue: Luxury

Dark blue: Seriousness, integrity, power, and knowledge

Purple



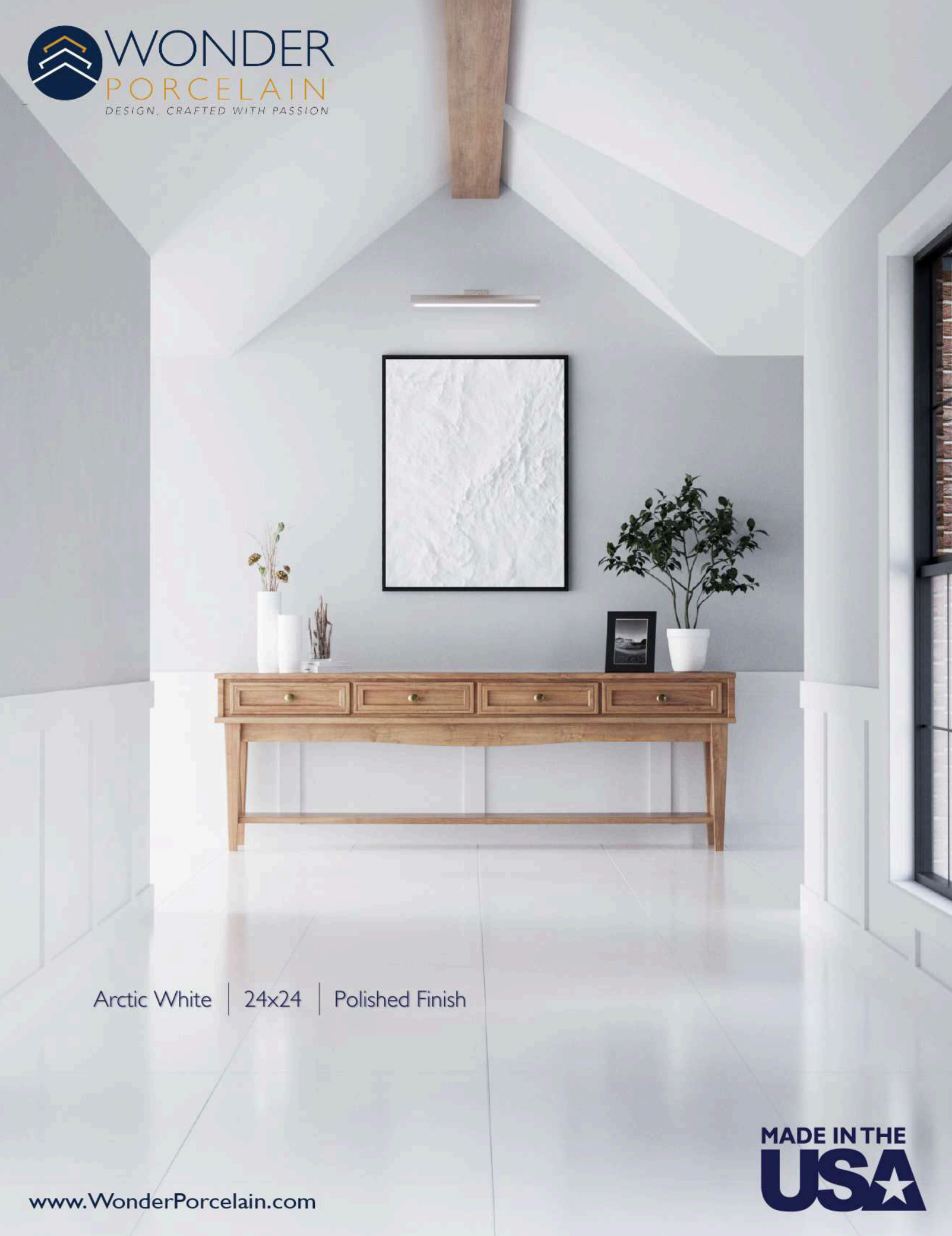
Vibrant purple: Creativity, fantasy

Light purple/lavender: Calm, soothing

Dark purple: Regal, exotic, wealth

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ral elements, green is also the most restful color for the eye. Green emotes renewal, growth, fertility, freshness, and harmony; using green tile can lend a sense of emotional safety, security, and calmness to a space.

Green tile is a color you can use in any space. Different shades of green tile can add contrast to a monochromatic color scheme. When paired with wood tones, green tile establishes a natural and organic aesthetic. Emerald green tile makes for a dramatic and elegant space. Evergreen, spruce, and other deep greens create a muted look and hushed mood. Celery green tile is a popular and versatile choice, looking warm and relaxing in a living room, bright and clean in a bathroom, and light and airy in a kitchen.

Blue Tile: Reminiscent of both the sky and the ocean, blue tile emotes feelings of freshness and calm, as well as strength, dependability, truth, confidence, loyalty, trust, intelligence, wisdom, faith, and heaven. This elemental color has serious benefits for both the body and mind, reducing blood pressure, slowing the heart rate and metabolism, and producing a calming effect.

The calming effect of blue tile makes it a great addition to any space in which you want to be able to relax, such as a bedroom, bathroom, or dining space. Blue tile is also trending for use in backsplash designs. Bright French blue tile and sunflower yellow accents make for a cheerful combination. Navy blue tile and other dark shades lend a touch of drama. Blue and green tile are a classic combination that's said to be calming. Blue and white tile create a refreshing look.

Purple Tile: Purple is associated with luxury and creativity and is purported as the favorite color of preadolescents. A combination of bold red and calming blue, purple tile can be either vibrant or understated, depending on the shade or tone. Dark purples are rich, dramatic, sophisticated, eccentric, exotic, and regal, whereas lighter shades are soft and soothing.

Purple tile can add depth to or brighten up a neutral design scheme. If you're looking to create a specific vibe with your purple tile, pay special attention to the shade. Dark purple tile adds a mysterious vibe to a room and creates the perfect backdrop to show off silver and crystal accents. Eggplant purple tile paired with crisp white tile accents or trim creates a sophisticated and lush look. Mix purple tile with soft greens and/or blues for a tranquil color palette.

White



Purity, freshness, balance, wholeness, order

Warm white (yellow undertones): soft and relaxing

Cool white (blue undertones): Crisp, cleanliness

Gray



Cool gray: Strength, confidence

Warm grey: Comfort, thoughtfulness

Dark Grey: Security, intelligence

Black



Elegance, drama, power

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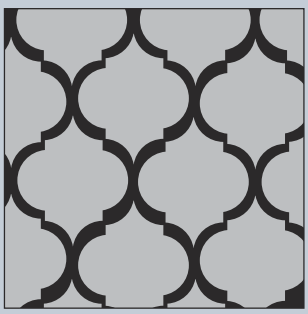
Light purple tile shades such as lavender tile and lilac tile add a soft and soothing feeling to a room — or a happy vibe, when paired with colors such as chartreuse or aqua.

White Tile: White emotes purity, cleanliness, perfection, innocence, completion, wholeness, peace, calm, hope, comfort, encouragement, and protection and signifies a blank palette or clean slate. White tile alleviates emotional turbulence and creates a sense of order and efficiency, helping to declutter your mind and your life. As a result, white tiled interiors feel clean and fresh — think of Scandinavian design with its tendency toward all-white spaces and sparse decoration, as well as Hygge design that uses white, light, and neutral colors for simplicity and to promote a sense of space and calm.

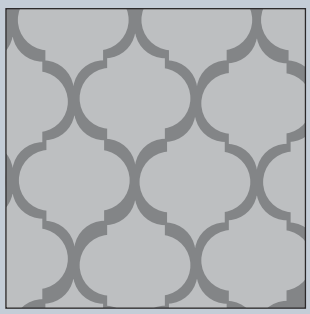
White tile can make a room look bigger, but can also seem cold, sterile, or barren if it's not balanced with other colors or accent pieces. The undertone of the white tile also makes a big difference: White tile with yellow undertones looks soft, creamy, and relaxing, which is a great option to soften any warm or neutral color scheme. White tile with blue undertones looks crisp and striking.

All-white tile bathrooms have been a

Grout Color Choice



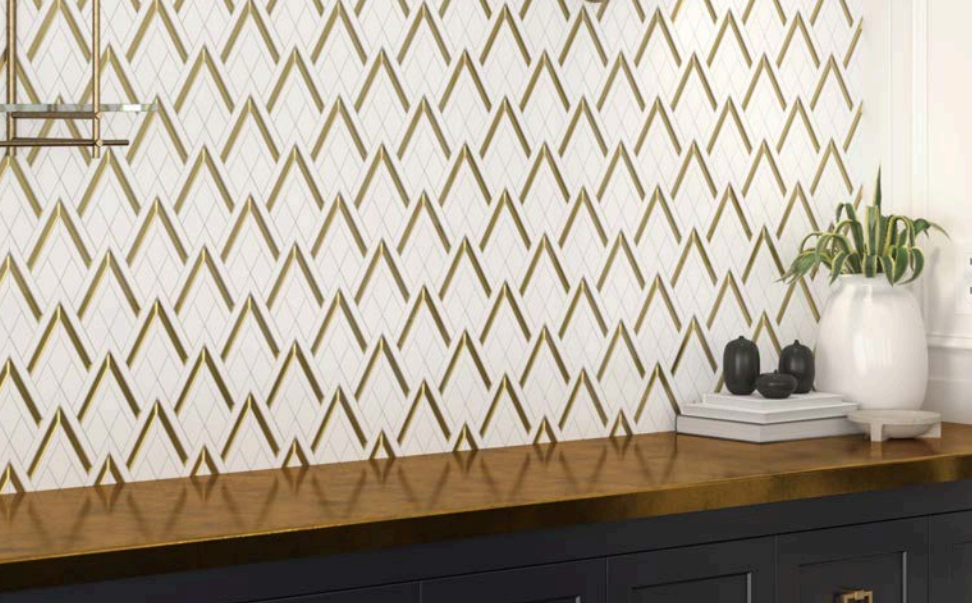
Contrast grout color with tile color to emphasize the tile shape and pattern.



Choose a neutral grout color for a less pronounced effect.



Match grout color to the tile color to create a seamless effect.





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popular trend since the Victorian era, and white subway tile is a classic backsplash choice. White tile pairs well with black tile in classic designs such as the octagon and dot pattern and checkerboard tile. White tile's broad use makes it a staple for many decor styles, such as farmhouse, transitional, and minimalism.

Gray Tile: Gray brings calmness, serenity, and sophistication. While solid grays and grays with cool undertones signalize strength and confidence, softer grays and grays with warm undertones create a sense of delicacy, comfort, and thoughtfulness.

Gray tile is often used as a neutral backdrop to make other colors pop. Mixing different shades or tones of gray can also create a look of understated elegance. Cloud gray tile with fawn or ecru accents establishes a soft and inviting atmosphere. Dove gray tile combines well with violets and plums for a soothing and soft aesthetic. Shades of grey are emerging as the backdrop for industrial chic approaches to home and workplace decor.

Black Tile: Black tile is associated with luxury, elegance, and sophistication. When used as the main color, black tile creates a sense of mystery, drama, and power. This go-to color is simultaneously traditional and modern — a fail-proof option to create a timeless and chic look.

Black tile can be a bit overwhelming when used heavy-handedly, so be sure to limit it to single applications or small rooms (for example, black tile bathrooms are currently trending). Black tile also works as a great accent or contrasting element, as it helps balance other colors so that they stand out more.

Black and white tile is a classic combination, whether in patterns such as checkerboard tile or octagon and dot tile, black marble-look tile with white veining, or pairings of black tile with stark white grout that emphasize the layout pattern. Red and silver are also classic complements to your black tile.

Beige & Brown Tile: The color of wood, brown symbolizes nature and evokes nature's stability, security, groundedness, and relaxing quality. This robust, weighty color adds an earthy richness to interior decor that makes a space feel warm and inviting, encouraging your family and friends to stop and unwind.

Beige and Brown



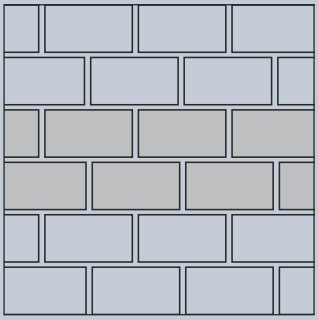
Stability, nature, sophistication, comfort

The mood your brown tile creates relies heavily on the shade of brown or beige and any other design elements in the space.

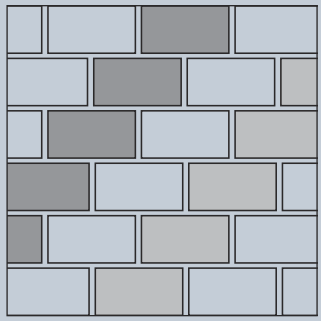
A lovely way to use brown tile is to contrast dark and light shades and mix textures. Brown tile is a good choice to emphasize (and tone down) bolder colors such as orange or lime green. Blues and greens both benefit from brown accents. Pair brown tile with aqua accents to create a light and airy vibe, or with burgundy for a swanky look.

Light brown shades of tile such as beige, linen, and flax lend warm sophistication to a space and create inviting neutrals for minimalism, farmhouse, and traditional decors. For a feminine color scheme that's ideal for a young girl's bathroom or bedroom, combine brown and pink tile. Soften masculine brown tile with lighter shades of other colors. Combining brown tile with cool blue accents elicits the look and feel of the earth and sky.

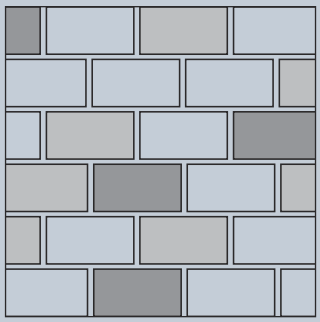
Color Combination Options



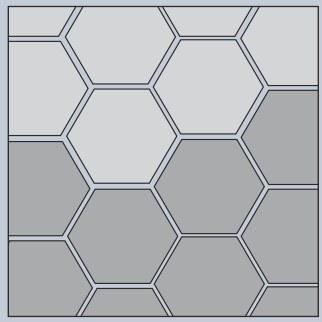
Use different colored tiles in blocks of color.



Use different colored tiles in a set pattern.



Use different colored tiles in a random pattern.



Stagger from one tile color to another.

Multicolor



Individual expression

Multicolor Tile: Alternate tiles of different colors to create a unique design (think checkerboard tile), or simply sprinkle same-shaped tiles of another color into your layout to add visual interest.

Patterned tile offers limitless options for multicolor geometric, floral, Art Deco, Spanish-modern, and other designs. Mosaic tile allows you to creatively combine tiles of different colors and shapes. Trending ombre tile blends one tile color into another, usually from light to dark or vice versa. Use a staggered tile transition to go from one color tile to another. Variegated tile exhibits different shades in irregular streaks or patches to create a natural or rustic look and is a common beauty trait of handmade tile. Shimmery iridescent tile creates the impression of multiple colors, depending on the lighting and angle of view.

Live in Color

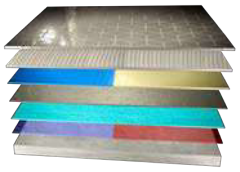
There's a tile color (or combination) that speaks to every personality and the different moods you may want to create within a space. Whatever color of tile you go with, be sure to choose a color that makes your project look — and makes you feel — your best!

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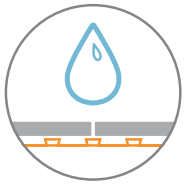
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Indoor-Outdoor Tile: Your Complete Guide



Indoor-outdoor living areas are meant to showcase the interior just as much as the exterior.

As consumers continue to embrace designated outdoor living spaces and community gathering areas, a trend to blur the delineation of indoor and outdoor areas has emerged.

Indoor-outdoor transitional spaces combine the comforts of indoor living with the advantages of outdoor areas, such as fresh air, the view or beauty of natural surroundings, outdoor activities, and spaciousness. Indoor-outdoor living spaces are easily seen as ideal for areas with mild weather but the addition of outdoor fireplaces, heated floors, pools, covered patios, and fans has extended the seasons of outdoor comfort in other climates.

Decor is emerging to furnish the duality of these spaces — outdoor fabrics have been updated to look fashionable in any space, and transitional furniture is less typically wicker and more the style of traditional furniture. Property owners are also turning to ceramic tile for choices that weather the elements of the great outdoors while seamlessly extending a room from inside to outside.

Indoor-Outdoor Transitional Spaces

Transitional spaces extend the interior space outside, often with no clear boundary of where the indoors and outdoors begin and end. These areas are sometimes called "California rooms" in residential spaces because of their popularity in that sunny state, but indoor-outdoor spaces are growing in demand across the U.S.

Transitional spaces don't need to be entirely open to the outdoors. Many transitions use floor-to-ceiling sliding glass doors that allow the spaces to extend to the outdoors at will.

A well-designed transitional space allows:

- Enjoyment of beautiful year-round and seasonal weather in comfort
- Extension of rooms beyond the physical limitations of walls
- Creation of a uniform design that extends throughout the property

Outdoor living spaces are already adding value to buildings. Expanding living space with an indoor-outdoor feature is an on-trend "luxury" look potentially adding value to property when it comes time to sell. Of course, the real benefit of adding an indoor-outdoor concept is the additional enjoyment of added space connected to nature!

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The key to accomplishing the perfect indoor-outdoor space lies in a design that makes for a fluid transition, while remaining functional enough to withstand the elements.

Benefits of Tile for Transitional Spaces

To protect a building's transitional space, the area must be able to withstand heavy use, spills and stains, leaves and debris, as well as weather concerns depending on the climate (e.g. rain, wind, heat, humidity, sunlight, and snow/ice). The unique nature of indoor-outdoor spaces requires strong, durable, and stylish materials — which is why transitional spaces benefit from the use of ceramic tile.

Durability

Ceramic tile stands out as a smart option for indoor-outdoor spaces thanks to ceramic tile's water, flame, stain, scratch, scuff, and dent resistance — no need to worry about kids, pets (including wildlife), inclement weather, or heavy furniture. With one of the longest life spans and the lowest life cycle cost of all flooring options, ceramic tile is also an economical choice for transitional spaces.

Low Maintenance

Ceramic tile's low-maintenance makes it ideal for any area that combines indoor and outdoor use. Muddy or wet foot/paw traffic and spills from food and drinks are no problem thanks to ceramic tile's stain resistance.

Ceramic tile's resistance to mold, mildew, and bacteria means when it's time for cleanup, you won't have to worry about harsh chemicals coming into contact with your food inside or your garden outside. Sweeping and wiping with clean water are usually all that's necessary with ceramic tile.

Safety

Ceramic tile provides multiple safety benefits that combat the potential hazards of outdoor spaces. For one, ceramic tile offers a variety of options that provide slip-resistant features, perfect for areas close to gardens, outdoor kitchens, indoor-outdoor bathrooms, or the pool.

Tile is also ideal for areas around fireplaces, fire pits, and grills as ceramic tile is nonflammable and won't melt, burn, smoke, or emit toxic fumes.

Weather Resistance

Weather is an obvious concern for transitional areas. Fortunately, many ceramic tile styles are highly moisture-resistant, allowing them to withstand the potentially damaging effects of freeze-thaw cycling. This is good news for property owners in more extreme cli-



Concrete-look tile adds an industrial edge to this contemporary design that doesn't have to stop outside. Ceramic tile options allow cohesive designs to flow outdoors to indoors.



If an outdoor area is naturally private, then the potential of an indoor-outdoor bathroom is nearly limitless. This gorgeous bathroom wraps around a corner of the building with transitions to the outdoors on multiple sides.

Indoor-Outdoor Living Rooms

The living room is the heart of the home, where you'll likely spend the most time with your family. Extending your living room to the outdoors allows you to spend more time with your loved ones, while some family members may want to be inside and others want to be out. Imagine relaxing on the sofa with a book while your family is by the pool — each of you is doing what you want to do, yet you still have the communal sense of being in the same space.

Your living room is also where you'll likely do most of your entertaining. Indoor-outdoor living rooms offer more space for guests, and allow them to be either outside or inside without being cut off from the rest of the party.

mates who want to add an indoor-outdoor space.

Moisture from rain, snow, and humidity (or irrigation systems and pool/jacuzzi splashes) typically isn't a concern for outdoor tile. However, moisture can easily be tracked indoors in transitional spaces. The same ceramic tile that protects against freeze-thaw cycles outside can withstand moisture absorption inside, offering two solutions with just one material!

While sunshine makes indoor-outdoor spaces even more enjoyable, sunlight can cause nonceramic materials to fade, just another reason why fade-resistant ceramic tile is ideal for transitional spaces.

Versatile Design Options

One challenge with indoor-outdoor transitional spaces is that you need a style that looks good both indoors and outdoors. You want the "transition" to be as fluid as possible, and consistent design elements are the answer.

Ceramic tile makes transitional design easy with a large array of styles, including many different coordinating "families" of tile options that have been designed to complement one another for use on many different types of surfaces. Ceramic tile allows you to blur the distinction between inside and outside with coordinated styles for indoor and outdoor floor tile, wall tile, and more.



Because of the way they are spaced out, these concrete-look tiles become oversized stepping stones. Once inside, the same tile style that's outside is used to provide design fluidity.

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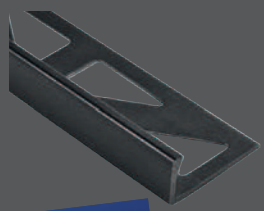


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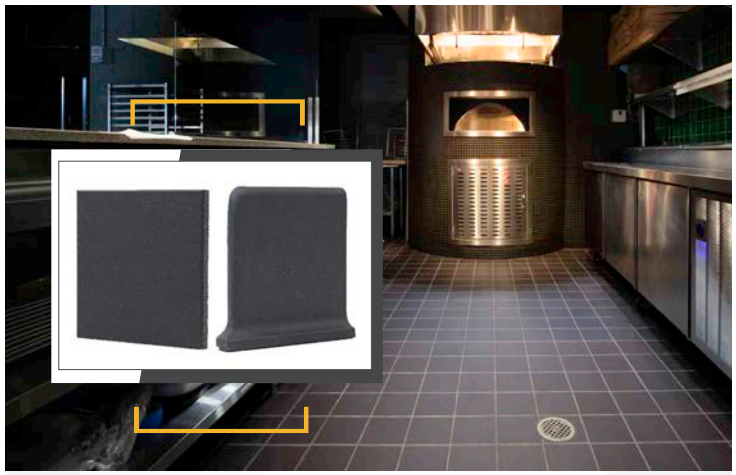
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Indoor-outdoor kitchens allow seamless entertaining. Ceramic tile options provide the durability of stain-, water-, and scratch-resistance to stand up to weather conditions in any climate.

Indoor-Outdoor Kitchens

Have you ever noticed how everyone is always drawn to a home's kitchen? There's something about the kitchen that makes people want to gather, and extending this space outdoors only makes it more appealing.

An outdoor kitchen can help avoid the lingering aromas associated with indoor cooking and may even help save on utility bills, since air conditioning won't have to combat heat from the oven or stove. Many foods just taste better outside (right?), which is probably why so many people love restaurants with outdoor seating.

For those residential remodels, know that both kitchen remodels and outdoor improvements are among the remodel projects with the best financial impact.

Indoor-Outdoor Bathrooms

We often think of the bathroom as a peaceful retreat from the stress of daily life. Imagine soaking in the tub while listening to birds sing, smelling the flowers in the garden, and being cooled by a soft breeze — it doesn't get more relaxing!

Bathroom remodels have a high residential resale value, so an indoor-outdoor bathroom update/addition could add value in addition to a peaceful oasis.

Outdoor Fireplaces

A fireplace in an indoor-outdoor space enables enjoyment even on chilly nights and year-round in cooler climates.

Imagine soaking in the hot tub or sipping a nightcap of choice next to a glowing fire. Let's face it, an outdoor fireplace adds undeniable ambience in any climate.

Transition to a Transitional Space With Ceramic Tile

When it comes to creating a dream area that maximizes the comfort, beauty, and benefits of indoor-outdoor spaces, ceramic tile's versatile style and functionality literally opens doors.

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Improve Any Room With These Ceramic Floor Tile Pattern Ideas



Indoors or outdoors, use floor patterns to add style and functionality to your space.

Ceramic floor tile can visually expand narrow rooms, elongate wide rooms, and hide a room's imperfections, if you simply use the right pattern. Ceramic floor tile also uniquely offers wide versatility in how your floor is installed, a versatility not possible in other flooring options. Imagine how any of the the following 14 patterns can transform your project and protect your investment.

1. Straight Lay Pattern

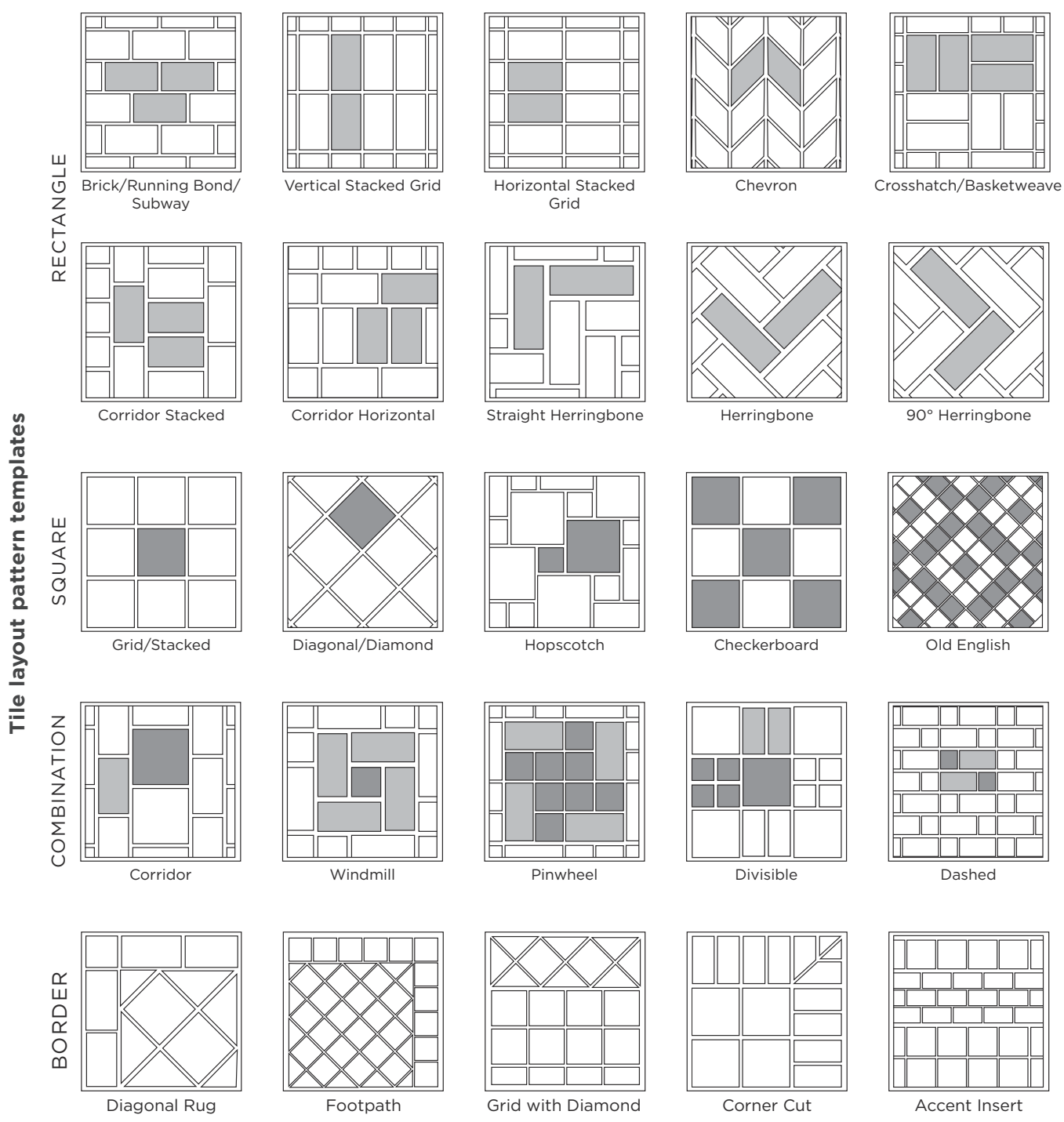


Because of its simplicity, the straight lay tile pattern blends easily with a room's other design patterns, giving you maximum flexibility to mix and match with any type, color, or texture of ceramic floor tile. Choose a monochromatic scheme for a clean and straightforward appearance or use the straight lay tile pattern to highlight a more decorative tile design. The straight lay pattern complements any tile size, from mini-grid mosaics to large-format panels, and is an ideal pattern choice for ceramic tile that looks like natural stone.

2. Diagonal Grid Pattern



The diagonal grid tile pattern turns the straight lay tile pattern 45 degrees, shifting the focus of any small room with the pattern's widening angles. If you want a little more visual interest with about the same ease of installation as the straight lay tile pattern, the diagonal grid tile pattern will do the trick. Use this arrangement to expand a smaller room or create flow-like movement through a straight hallway.



3. Running Bond Pattern



Draw eyes away from minor flaws in a room with the running bond tile pattern. Simple to install yet visually stunning, this staggered configuration is often used to help hide crooked walls or to break up the pattern of existing decor. You can also tilt the pattern at a 45 degree angle to give your flooring an intentional "traffic" flow.

Running bond floor tile patterns use a 33 to 50 percent row offset from tile to tile. (Note: a 50 percent offset is often called "brickwork.") Discuss your ideas with a flooring expert to ensure you end up with the installation look you want.

4. Checkerboard Pattern



The checkerboard floor tile pattern is a timeless and versatile option that can equally complement a modern farmhouse, classic revival, ranch redo, or urban loft. The black and white version of this ceramic flooring design is classic. Mix it up by installing your pattern on a diagonal, offsetting the grid slightly, adding bold colors, or simply checkerboarding the same floor tile with two different finishes (matte and gloss). All you need are two different floor tiles of the same size!

5. Chevron Pattern



The chevron floor tile pattern forms a zigzag design by combining rectangular floor tiles into angled ends. This is a beautiful choice for elongating or widening angles in a space. Like the running bond floor tile pattern, the chevron pattern can carry your line of sight along an intended path or toward a focal point.

Despite its intricate appearance, the installation of the chevron floor tile pattern is quite simple and only requires one tile size and type. For a more dramatic look, you could alternate floor tiles with different colors for each V shape to create a striped zigzag. Additionally, some tile designs create the chevron look on larger tiles (see above).

6. Herringbone Pattern



The difference between the chevron floor tile pattern and the herringbone floor tile pattern lies in the zigzag — the chevron floor tile pattern has an uninterrupted zigzag and the herringbone floor tile zigzag is offset because the ends are not angled.

The herringbone floor tile pattern creates a V-shaped design by placing rectangular tiles in alternating 45 degree angles. This flooring pattern features widening angles that work well in smaller rooms, but the numerous grout lines may seem overwhelming in larger spaces. As with the chevron floor tile pattern, this tile design can purposefully lead you through a space. This pattern allows you to create a fairly intricate-looking floor design with one tile shape and size!

7. Octagon and Dot Pattern



The octagon and dot (diamond) floor tile pattern has been popular since before the Victorian era as a mosaic tile design. Today, octagon and dot mosaics are often available on sheets for ease of installation and you will see large-scale octagon and dot floor tile patterns more often in larger spaces.

Like with the checkerboard tile pattern, the black and

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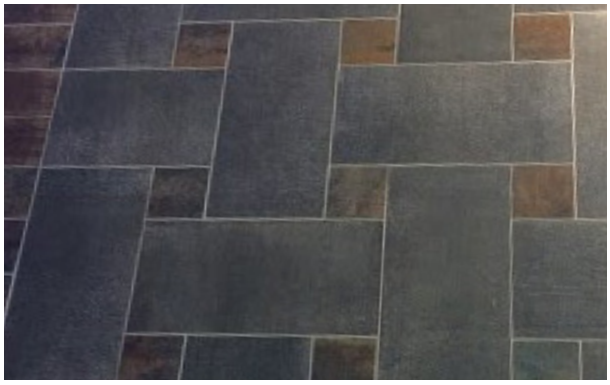
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white octagon and dot combination is most classic. Try these variations to create a unique look: Reverse the dominant color (black octagons and white dots), change the tile colors altogether, use the same color for both tile shapes, or use a contrasting colored grout.

8. Basketweave Pattern



The basketweave pattern gets its name from baskets woven from fibers at 90 degree angles. Rectangular or square floor tiles forming this pattern create a beautiful feature and focal point. This pattern is especially impressive on a wall or across the entire surface of a floor and can be achieved with large or small tiles (although large tiles especially show off the design and craftsmanship of the pattern). The basketweave floor tile pattern looks complicated, but it's simply a trick of the eye and is rather straightforward to install.

9. Rug Pattern



The tile rug pattern creates the illusion of a rug feature within tile flooring. This design inserts a decorative tile grid into the surrounding tile pattern (usually a basic straight grid) to resemble a rug. Rug patterns can be helpful to delineate spaces within an open floorplan.

The rug pattern is great for differentiating certain spaces in your home or creating a unique focal point. Consider this floor tile pattern for entryways to mark the change from outdoor to indoor space, as well as hallways, living areas, and bathrooms (we love this pattern for a shower floor or wall).

10. Crosshatch Pattern



The crosshatch floor tile pattern shares the complex broken grid look of the herringbone floor tile pattern, but is much less overwhelming on large floor spaces.

To create this design, lay pairs (or multiples) of alternating stacks of tiles in a perpendicular pattern. For large floor spaces, increase the number of tiles in each stack. This flooring design also creates a natural flow leading occupants into the next rooms. This is a simple installation process requiring only one size and shape of tile.

11. Windmill Pattern

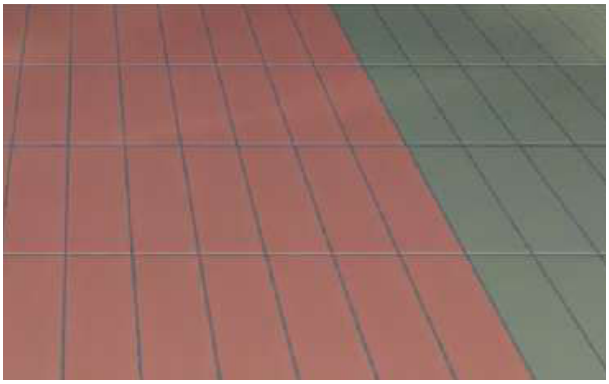


The windmill floor tile pattern is formed using four rectangular tiles to create a frame around a center square tile. You can use this floor tile pattern in a wide range of sizes. Mosaic windmills are attention grabbers

and are best suited to smaller areas, such as bathroom tile, paired with a simple decor scheme. Many manufacturers are now mounting mosaic windmill patterns on strips and sheets, making them easier to install.

Large-scale windmill patterns offer excellent opportunities to showcase unique tiles. Use the unique tile in the center position and monochromatic rectangular tiles to frame it.

12. Vertical and Horizontal Grid Patterns



A straight grid using vertical or horizontal rectangles creates a modern, minimalist surface that works equally as well in large-format ceramic tile as it does mosaics. The simplicity and elegance of this tile pattern make it ideal for tiles with texture. Color plays a significant role when using this grid, shifting easily from serene to dramatic depending on the color choice. Using verticals or horizontals in a straight grid installation gives one of the easiest installation patterns pizazz without complexity.

13. Corridor Pattern



The corridor floor tile pattern is named because of the repeating "walkways" that it creates. This is basically a floor tile pattern that is divided by columns of smaller rectangular or square tiles. You can make each "corridor" into divisible tile sizes or create an offset.

If you want an interesting backdrop for a monochromatic color scheme, you'll find many creative options in the corridor pattern.

14. Hopscotch Pattern



The hopscotch floor tile pattern is made up of a combination of large and small square floor tiles that create a playful, interlocking design. Stick with a consistent color scheme to give the pattern itself all the attention, or center the design by using a contrasting tile color for the small squares. You can also introduce rectangles into this grid for a modified hopscotch tile pattern.

This floor tile layout requires some careful planning. We suggest that you lay out a large area (dry fit without adhesive) before installing so that you can see how the pattern will work in your space.

A Smart Choice

Of the many advantages of ceramic floor tile, its durability to stand up to wear without damage is one of it's most attractive cost-saving characteristics. Ceramic floor tile is highly resistant to scratches and scrapes and won't fade from the sun (confidently redecorate and move your furniture around). Additionally, you can use ceramic tile in every room, including entryways, indoor pool areas, bathrooms, and kitchens, where water-prone materials dare not to go.

Ceramic tile brings easy elegance and durability to any room. Choose one of these popular floor tile patterns or go for your own unique design — only ceramic tile gives you such wide options to express your personality for a one-of-a-kind installation. Discuss your ideas with a tile professional and then add your personal touch for a beautiful floor that will stand up to years of use and give you the lowest life cycle cost of any flooring option.

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