
America's Indoor / Outdoor Unglazed Ceramic Quarry Tile



METROPOLITAN
C E R A M I C S[®]



Navy Pier - Chicago, IL
8x8 - #250 Galaxy
4x4 & Stair Tread - #108 Chestnut Brown

MEETING YOUR DESIGN NEEDS

COMMERCIAL ■ RESIDENTIAL ■ INDOORS ■ OUTDOORS

Metropolitan Ceramics is the leader in manufacturing high quality unglazed quarry tile. Metropolitan quarry tile is an extremely durable ceramic quarry tile, manufactured by the extrusion process, not pressed. Metropolitan Ceramics tile has a low absorption body and a tight die skin surface. Metropolitan quarry tile is slip resisting and can be used indoors or outdoors in virtually any climate. Metropolitan Ceramics tile resists impact and abrasion. The color palette consists of natural earth tones that are through-the-body. The color will not scratch or wear off like some glazed and porcelain products.

Our tile is the ideal choice for demanding commercial and residential ceramic tile applications. The tiles are produced using state-of-the-art manufacturing equipment and expertise gained from over 100 years producing hard fired ceramic products. Metropolitan brand products are engineered with durability in mind and are suitable for interior and exterior installations. We invite you to experience the pleasing look and lasting value that is uniquely Metropolitan Ceramics.

Please Note: Colors are as accurate as printed representations can be. For final color selection refer to current actual color samples.

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METROPOLITAN
C E R A M I C S[®]

Ironrock Since 1866



ENVIRONMENTAL IMPACT AND STEWARDSHIP

SUSTAINABILITY

Metropolitan Ceramics® quarry products are one of the longest lasting flooring products available.

In fact, a recent study conducted by the Tile Council of North America found quarry tile to be the best value among competing floor covering products based specifically on the price and longevity of the product. Life Cycle is fast becoming the standard by which the sustainability of building products is measured. This concept puts focus on the entire life cycle of a product. Metropolitan® quarry tile is an excellent cradle to grave product because it is mined at a close proximity to the manufacturing site and it can last for many years, even centuries. At the end of a building's life it can be removed and reused as tile or be recycled as a roadbed material with no negative impact to the environment.

DURABILITY TESTING DATA

Manufactured for long wear in demanding applications, Metropolitan Ceramics® unglazed ceramic quarry tile meets or exceeds the following standards relating to sustainability.

Specification	Test	Standard	Result
Abrasion Resistance	ASTM C501	Index of 35 or better	Metropolitan tests at >80 or better.
Absorption 5-hour boil	ASTM C373	5%	Metropolitan tests at 3% maximum and qualifies as vitreous.
Breaking Strength	ASTM C648	Min. 250 lbs.	Metropolitan tests at 400 lbs. or better.
Compressive Strength	ASTM C67	No industry standard	Metropolitan tests at 10,000 P.S.I. or better.
Facial Size Variation	ASTM C499	Average facial dimension of each tile not to exceed 4% from nominal dimension(s)	Metropolitan meets the standard.
Freeze/ Thaw	ASTM C67	No industry standard	ASTM test is 50 cycles.
	Metropolitan internal test	Metropolitan internal standard is 3,000 cycles.	

Metropolitan® quarry tile is a natural product with through-the-body color that will not wear off.

DURING INSTALLATION AND ONCE INSTALLED

Metropolitan Ceramics® quarry tile can be installed and sealed with inert products, providing air quality advantages during installation. The low absorption, kiln-fired, natural materials that make up Metropolitan® quarry tile produce no off-gassing sometimes associated with other 'soft' flooring products. Metropolitan Ceramics® quarry tile is neither an 'original source' nor a source for 'absorbed' volatile organic chemicals. Metropolitan® quarry tile will not contribute to the growth of mold and bacteria. Floor coverings make up a large percentage of surface space in a building, and a Metropolitan® quarry tile floor, when properly installed and maintained, will help contribute to a healthy work and living environment.

Other possible sources of VOCs are the cleaning products required to clean some surface materials. Metropolitan Ceramics® quarry tile can be cleaned using non-toxic, water-based cleaners.

THE MANUFACTURING PROCESS

- Nearly all our raw materials are mined within 50 miles of our facility.
- 2,028 tons of waste clay was reprocessed and recycled back into production.*
- The heat from our kilns is also a heat source for our dryers.
- 1,266 tons of fired scrap were reground and recycled into our products.*
- All shipping cartons contain recycled material and all cartons are recyclable.
- We use the most energy efficient production equipment available.

*Figures based on 2009 records.

RECYCLED CONTENT CHART

The following chart contains percentages of **pre-consumer recycled** material defined as follows: *Pre-consumer recycled material is a waste product of a manufacturing process, diverted from the waste stream and not normally used by industry during the original manufacturing process.*

The following manufacturing waste streams, previously disposed of as waste, are now recovered, reprocessed and returned to our manufacturing process: unfired clay • fired scrap

#850 EnviroQuarry® 50%

Quarrybasics® Colors

#101 Oyster Bay 4%

#105 Buckskin 4%

#107 Boulevard 4%

#108 Chestnut Brown 8.9%

#205 Adobe 6.3%

#310 Mayflower Red 9.6%

#220 Auburn 8.4%

#505 Plaza Gray 4%

#507 Puritan Gray 4%

X-Colors

#31X Commercial Red **59.3%**

#57X Stone Gray **34.5%**

#15X Malibu Beach 26.5%

Somerset™ Colors

#350 Harvard Square 9.6%

#458 Cordoba 8.9%

#250 Galaxy 8.4%

#255 Aztec 6.3%

Down to Earth® Colors

#350 Red Paver 9.6%

#458 Bedrock 8.9%

#155 Cobblestone 4%

#255 Desert Floor 6.3%



METROPOLITAN CERAMICS® AND LEED

Based on our review of LEED-NC Version 2009, we suggest that a LEED AP consider the following areas where Metropolitan Ceramics quarry tile may contribute to gaining LEED points.

Based on LEED Version 2009

Metropolitan Ceramics® quarry products are manufactured in Canton, Ohio U.S.A. To the right is a map showing cities within a 500 mile radius of the Metropolitan® manufacturing facility. Also, nearly all raw materials are mined within 50 miles of our facility.

MR Credit 5: Regional Materials: 1-2 Points

Intent - Increase demand for building materials and products that are extracted and manufactured within the region, thereby supporting the use of indigenous resources and reducing the environmental impacts resulting from transportation.

Regional Materials	Points
10%	1
20%	2

Mined (as a by-product of coal strip mining) within 50 Miles of the manufacturing facility. Metropolitan's manufacturing plant is centrally located in Canton, Ohio.

MR Credit 4: Recycled Content: 1-2 Points

Intent - Increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

Recycled Content	Points
10%	1
20%	2

Metropolitan Ceramics' products are manufactured with up to in excess of 50% pre-consumer recycled material (EnviroQuarry). See Recycled Content Chart on previous page for content of individual offerings.

Note: 1/2 of pre-consumer content may be claimed.

ID Credit 1 : Innovation in Design - 1-5 Points

Intent - To provide design teams and projects the opportunity to be awarded points for exceptional performance above the requirements set by the LEED Green Building Rating System and/or innovative performance in Green Building categories not specifically addressed by the LEED Green Building Rating System.

Because neutral cleaners are used, Metropolitan tile can be part of a green maintenance program. Metropolitan tile can also be used in other innovative ways such as being part of a passive solar energy plan when used in conjunction with natural lighting.



SS Credit 7.1: Heat Island Effect:

Non-Roof - 1 Point

Intent - Reduce heat islands to minimize impact on micro climate and human and wildlife habitat.

Metropolitan Ceramics unglazed tiles are available in light-reflective colors and can be used outdoors for areas such as patios, walkways, pool surrounds and courtyards.

IEQ Credit 4.3: Low-Emitting Materials: Flooring Systems - 1 Point

Intent - Reduce the quality of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installer and occupants.

Metropolitan Ceramics unglazed quarry tile is kiln fired to temperatures in excess of 2000°F thus burning out any potential VOC's (Volatile Organic Compounds). In addition, the vitreous state of the product after firing makes it both mold and bacteria resistant.

IEQ Credit 4.1: Low-Emitting Materials: Adhesives & Sealant - 1 Point

Intent - Reduce the quality of indoor air contaminants that are odorous, irritating and/or harmful to the comfort and well-being of installer and occupants.

Most manufacturers of ceramic tile installation materials have moved to - no or low - VOC products.



4X8
ENVIROQUARRY

ENVIROQUARRY®



IN EXCESS OF
**50% RECYCLED
CONTENT** (Pre-consumer)

The production of our extruded quarry tile creates a waste product that cannot be added, in large volume, to our existing colors. Other manufacturing processes create waste products including fired scrap.

Through additional blending and reprocessing of large quantities of this waste product and then blending it further with new material, we are now able to offer a product with a pre-consumer* recycled content of over 50%. ENVIROQUARRY® meets the same tough standards as our regular quarry product and is kiln flashed for random color variation and added appeal.

Metropolitan Ceramics® is pleased to bring to market a product that performs so well and has the potential to divert hundreds of tons of material from the waste stream.

NOTE: Because of the nature of ENVIROQUARRY® (high recycled content) there may be some shade variation from run to run and within longer runs of the material. Flashing of the product will help in the blending of color variations, but some variation is to be expected in a product of this sort.

ENVIROQUARRY®



ENVIROQUARRY COLOR

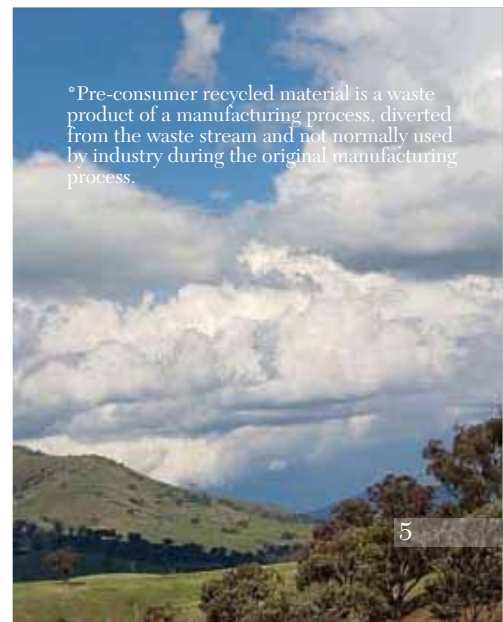


EnviroQuarry
#850

NOTE: Because of the high recycled content there will be some shade variation from run to run and within longer runs. Final selection should be made from current tile samples and shade variation should be expected.

Available Sizes: 8x8, 6x6, 4x8

*Pre-consumer recycled material is a waste product of a manufacturing process, diverted from the waste stream and not normally used by industry during the original manufacturing process.



QUARRYBASICS®



6X6
#105 Buckskin and #107 Boulevard

AMERICA'S QUARRY TILE

Unglazed ceramic quarry tile offering the combination of long wear and great looking colors and shapes. The colors coordinate to fit high traffic multi-use commercial and residential design needs.

- **THROUGH-THE-BODY COLOR**
Different from glazed tile, no chipping, wearing off or scratching.
- **LOW ABSORPTION**
Resists soiling. Suitable for exterior applications.
- **RELIEVED EDGES**
Less susceptible to chipping. Softer more natural looking.
- **A VARIETY OF COLORS, SHAPES AND SIZES**
Combine and create the design best suited for your application.
- **PROVEN PERFORMANCE**
Millions of square feet specified and installed every year from airports to restaurants, to hotels and homes.

clear tones
QUARRY BASICS®



Recycled Content (Pre-consumer)

- #101 Oyster Bay - 4%
- #105 Buckskin - 4%
- #107 Boulevard - 4%
- #108 Chestnut Brown - 8.9%
- #205 Adobe - 6.3%
- #220 Auburn - 8.4%
- #310 Mayflower Red - 9.6%
- #505 Plaza Gray - 4%
- #507 Puritan Gray - 4%

QUARRYBASICS COLORS



METROPOLITAN ARCHITECTURAL
SOMERSET™



8x8
 #255 Aztec with #101 Oyster Bay

**ARCHITECTURAL
 FLASHED QUARRY**

Metropolitan Ceramics has successfully recreated the conditions that made naturally fired tile so richly varied in depth of color and tone. Somerset is a premium, reduction fired ceramic tile produced without the use of glazes or “flash” fired surface treatments. Somerset ceramic tile combines strong earth tones, mellow ranges and deep hues with through-the-body color for outstanding performance indoors and out. Combine Somerset with traditional architecture and furnishings and you have a classic floor. Arranged in more exotic patterns, Somerset becomes the perfect floor to complement contemporary designs and materials.



Recycled Content (Pre-consumer)

- #350 Harvard Square - 9.6%
- #458 Cordoba - 8.9%
- #250 Galaxy - 8.4%
- #255 Aztec - 6.3%

SOMERSET COLORS



Available Sizes: 6x6, 4x8 & 8x8



METROPOLITAN COMMERCIAL
X-COLORS



6x6
#15X Malibu Beach

**ADDED SLIP
RESISTANCE**

Quarry Basics X-Colors feature a metallic additive dispersed throughout the body of the tile.

- X-colors have a coefficient of friction that meet or exceed .90 dry and .70 wet at time of manufacture.
- A popular choice for commercial kitchens and anywhere slip resistance is an issue.

**QUARRYBASICS®
X-COLORS**



Recycled Content (*Pre-consumer*)

#31X Commercial Red - 59.3%

#15X Malibu Beach - 26.5%

57X Stone Gray - 34.5%

QUARRY BASICS X-COLORS



Commercial Red
#31X



Malibu Beach
15X



Stone Gray
#57X



METROPOLITAN COMMERCIAL

METRO TREAD®

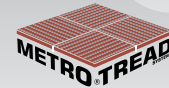


6x6
#31T Mayflower Red

ADDED SLIP RESISTANCE

METRO TREAD® features nine raised treads across the surface of each tile and spaced 5/8" apart for added slip resistance.

- METRO TREAD® has a coefficient of friction that meets or exceeds .90 dry and .70 wet at time of manufacture.
- A popular choice for commercial kitchens and anywhere slip resistance is an issue.
- METRO TREAD® tiles should be installed in one of two patterns depending on the application.



Recycled Content (Pre-consumer)

- #310 Mayflower Red - 9.6%
- #105 Buckskin - 4%
- # 507 Puritan Gray - 4%

METRO TREAD COLORS



Mayflower Red
#31T

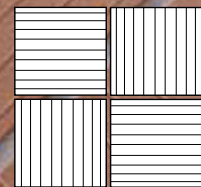


Buckskin
#15T

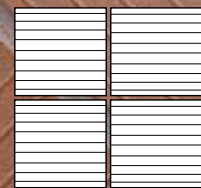


Puritan Gray
#57T

Available Size: 6x6



Grid Pattern:
for use in multidirectional traffic such as commercial kitchens



Linear Pattern:
when traffic flows across the tread such as in a hallway or ramp

DOWN TO EARTH[®]



6x9 with Stone Texture
#350 Red Paver

OUTDOOR TILE FOR OUTDOOR LIVING

Residential Beauty • Commercial Strength

Rich color variation - captivating detailed texture - classic earth tones - traditional and unique sizing - combine to bring earth's elegance to your space. Capturing the colors and textures of nature in the most natural of materials - Down to Earth will add warmth to any environment both indoors and outdoors.

Welcoming and inviting, traditional and at the same time contemporary, Down to Earth brings commercial durability with a flare! Think of Down to Earth indoors for restaurants - foyers - lobbies - bathrooms/ rest rooms and bring the indoors out for walkways - balconies - courtyards - drives.

Traditional tile - traditional style - traditional value - new appeal - that is Down to Earth.



Recycled Content *(Pre-consumer)*

- #350 Red Paver - 9.6%
- #458 Bedrock - 8.9%
- #155 Cobblestone - 4%
- #255 Desert Floor - 6.3%

DOWN TO EARTH COLORS



Red Paver
#350



Bedrock
#458



Desert Floor
#255



Cobblestone
#155



4x12 with Slate Texture
#458 Bedrock

10 Available Sizes: 4x8 (Velour Texture), 4x12 (Slate Texture), 6x9 (Stone Texture)
Texture specific to size.

SPECIAL ORDER ONLY

METRO ESQ

EPOXY SYSTEM
QUARRY



METRO ESQ COLORS



Mayflower Red
#310



Buckskin
#105



Puritan Gray
#507

Designed with a square edge specifically to be used with epoxy grout. For jobs that specify epoxy.



Available Size: 6x6



Recycled Content *(Pre-consumer)*

#310 Mayflower Red - 9.6%
#105 Buckskin - 4%
507 Puritan Gray - 4%

SPECIAL ORDER ONLY

ECO QUARRY

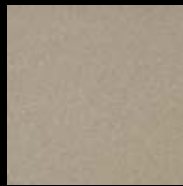
ECONOMICAL
3/8" THICK



ECO QUARRY COLORS



Mayflower Red
#310



Buckskin
#105



Puritan Gray
#507

Eco Quarry has all of the features and benefits of Metropolitan Ceramics' unglazed quarry tile in an economical 3/8" thickness.



Available Size: 6x6



Recycled Content *(Pre-consumer)*

#310 Mayflower Red - 9.6%
#105 Buckskin - 4%
507 Puritan Gray - 4%

SPECIAL ORDER ONLY

METRO[®] PAVERS

3/4" THICK
PAVER TILE



METRO PAVER COLOR



Mayflower Red
#310

Engineered to meet the demands of heavy truck traffic and industrial applications.



Available Size: 6x9



Recycled Content *(Pre-consumer)*

#310 Mayflower Red - 9.6%

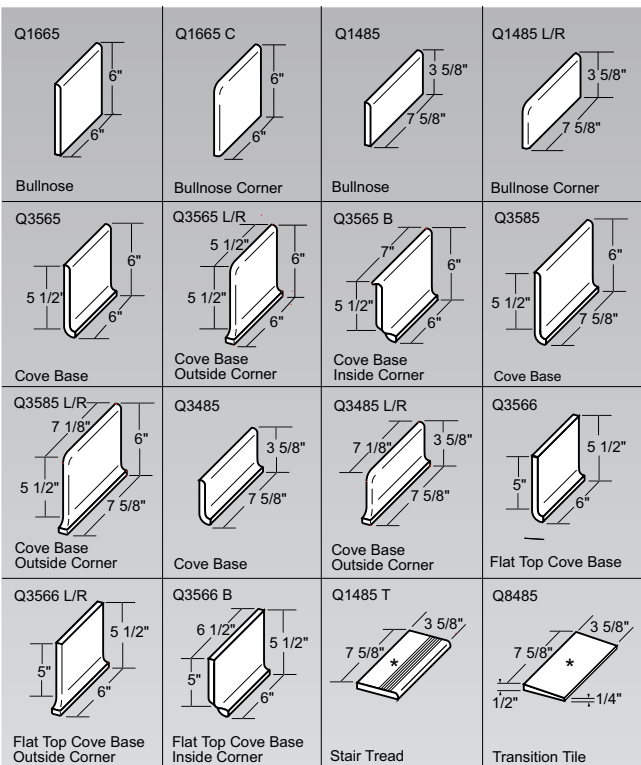
PERFORMANCE SPECIFICATION

By ANSI Standard Specification A137.1 Metropolitan Ceramics' unglazed tile is classified as quarry tile, however, the exceptional technical characteristics noted enable them to be used in virtually any application suitable for ceramic tile. Metropolitan Ceramics' unglazed tile meets both the ASTM standards, the ANSI A137.1 specification for quarry tile, and Metropolitan internal requirements as listed.

Specification	Test	Standard	Result
Abrasion Resistance	ASTM C501	Index of 35 or better	Metropolitan tests at >80 or better.
Absorption 5-hour boil	ASTM C373	5%	Metropolitan tests at 3% maximum and qualifies as vitreous.
Breaking Strength	ASTM C648	Min. 250 lbs.	Metropolitan tests at 400 lbs. or better.
Compressive Strength	ASTM C67	No industry standard	Metropolitan tests at 10,000 P.S.I. or better.
Facial Size Variation	ASTM C499	Average facial dimension of each tile not to exceed 4% from nominal dimension(s)	Metropolitan meets the standard.
Freeze/ Thaw	ASTM C67 Metropolitan internal test	No industry standard Metropolitan internal standard is 3,000 cycles.	ASTM test is 50 cycles.
Shear Bond Strength	ASTM C482	50 P.S.I. or better	Metropolitan exceeds the standard.
Static Coefficient of Friction	ASTM C1028	No industry standard	At time of manufacture, all Metropolitan colors meet or exceed measure of 0.70 dry and 0.60 wet. Metropolitan X-COLORS and METRO TREAD (enhanced slip resisting products) meet or exceed 0.90 dry and 0.70 wet
Thickness	ASTM C499	Max. range of .050"	Metropolitan meets the standard.
Warpage	ASTM C485	Max. 1.5% along any edge. 1.0% on either diagonal.	Metropolitan meets the standard.
Wedging	ASTM C502	Max. 1.0%	Metropolitan meets the standard.

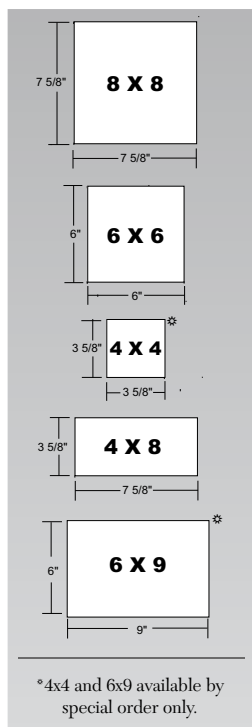
Visit our web site for trim availability in each color at www.metroceramics.com

TRIM SELECTION



* BARRIER FREE COMPONENTS

SIZES



*4x4 and 6x9 available by special order only.

For more information on Down to Earth® sizes, visit our web site at www.downtoearthtile.com

INSTALLATION & SPECIFICATION

A typical specification to assure the use of Metropolitan Ceramics' unglazed tile on your next job should be written as follows: Ceramic tile shall be, QUARRYBASICS®, ENVIROQUARRY®, DOWN TO EARTH®, SOMERSET™, METRO TREAD®, ECO QUARRY™, METRO®E.S.Q or METRO®PAVERS, as manufactured by Metropolitan Ceramics, Canton, Ohio 44711. The body composition shall be of the finest shale and clays producing a uniformly dense body with slip-resisting texture. Color shall be: Patterns: As per drawing. Grout: Compatible color, as approved by architect. Test results shall be available upon request.

For best installation results, we recommend that the following be included in the specifications: Nominal 3/8" joint widths. Mix tile from several cartons for best shading during installation. Use beating block to embed tile and align surfaces and edges. Clean colored grout with cheese cloth or toweling for uniform grout color and most uniform grout level and texture. Grout joints may be damaged by some acid cleaners. Test a small area first. Wet floor with clean water before applying any acid cleaner. Do not use any product containing Hydrofluoric acid since it will attack both grout and tile. See our web site for complete downloadable specification information.

CLEANING AND MAINTENANCE

The secret to a successful tile maintenance program is to begin with a clean surface. It should be the responsibility of the tile installer to thoroughly clean and remove all the grout residue and the dulling film inherent in the installation process.

After initial clean up, a period should be allowed to permit proper curing-28 days for maximum grout hardness. Prior to this period, it is recommended that the installer mop the floor with a temporary coating solution of a neutral chemical cleaner in a ratio of one part cleaner to one part water. Neutral chemical cleaners both clean and enhance the natural soil-resisting character of Metropolitan Ceramics unglazed quarry tile. See our web site for complete downloadable cleaning and maintenance information.

Warranty Information

Ironrock Capital, Inc., (Ironrock), warrants as limited below, that our products will meet the testing standards and specifications set forth in our current product literature. In the event of a defect or failure to conform to this written warranty, Ironrock Capital, Inc. will remedy shipment shortages and replace defective tile F.O.B. plant if timely notice of the defect is received by Ironrock prior to installation of the tile. Because specific installation details, structural design and environmental conditions are beyond Ironrock's control, we are not responsible for the performance of our products after they are installed except in the case of latent defects. Please see our web site for further details. www.metroceramics.com

CERAMIC TILE: LIFE CYCLE COST STUDY
QUARRY TILE, THE MOST ECONOMICAL OF ALL FLOOR FINISHES

2005 LIFE CYCLE COST FOR FLOOR FINISHES

FLOOR FINISH	INSTALLED COST	LIFE CYCLE COST	EXPECTED LIFE(YRS)	COST PER YEAR
Quarry Tile	\$6.83	\$16.13	50	\$0.32
Glazed Ceramic Floor Tile	\$7.00	\$16.30	50	\$0.33
Glazed Porcelain	\$8.34	\$17.64	50	\$0.35
Mosaic Tile	\$8.20	\$17.50	50	\$0.35
Unglazed Porcelain	\$8.30	\$17.60	50	\$0.35
Natural Hardwood	\$9.31	\$20.80	50	\$0.42
Travertine-Turkish	\$12.50	\$21.80	50	\$0.44
Marble	\$21.00	\$30.30	50	\$0.61
Laminate	\$8.84	\$17.77	25	\$0.71
Man-made Hardwood	\$9.58	\$18.51	25	\$0.74
Portland Cement Terrazzo	\$14.88	\$24.27	30	\$0.81
Stained Concrete	\$12.40	\$24.60	25	\$0.98
Carpet	\$3.22	\$6.50	6	\$1.08
Resin Terrazzo	\$8.50	\$16.53	15	\$1.10
Sheet Vinyl	\$6.90	\$13.90	10	\$1.39
Poured Epoxy	\$8.18	\$15.18	10	\$1.52
VCT	\$3.91	\$18.35	10	\$1.83

* The **Tile Council Of North America** commissioned an independent construction cost consulting firm, Scharf-Godfrey (a Division of Phoenix Engineering Inc.), to conduct a Life Cycle Cost study comparing various types of ceramic tile including glazed and unglazed, porcelain, mosaic, and quarry tile to twelve other floor finishes such as hardwood, laminate, concrete, stone, carpet, terrazzo, vinyl and poured epoxy.



MADE IN THE USA
CANTON, OHIO



METROPOLITAN
C E R A M I C S

Ironrock Since 1866

P.O. Box 9240 Canton, Ohio 44711 • 1.800.325.3945 • email: info@ironrock.com • www.metroceramics.com

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