Floor Coverings
COMPARISON

Costs For 17 Surfaces

Floor Coverings Comparison

Life Cycle Cost

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 porcelain, mosaic, and quarry tile, to 12 other floor finishes such as hardwood, laminate, concrete, stone, carpet, terrazzo, vinyl, and poured epoxy (for specifics see chart).

Definition of Life Cycle Cost

Life Cycle Cost Analysis (LCCA) is an economic method of project evaluation in which all costs arising from owning, operating, maintaining, and disposing of a project are considered important to the decision.

The definition of Life Cycle Cost used in the 2005 study was the initial cost to install, which includes labor, materials, normal contractor's overhead and profit, plus periodic maintenance costs to preserve and maintain the appearance of the product, and the final costs to remove the floor covering at the end of its useful life. Future expected costs were discounted to today's dollars using the Present Value (PV) of a future payment calculated as a function of interest rate and an assumed inflation rate. It was assumed that there is no salvage value to any of the products at the end of their useful life, but there are disposal fees associated with removal of the floor covering.

How the Study Was Conducted

Scharf-Godfrey, construction cost consultants, chose the Life Cycle Cost method for collecting and comparing the data used in the study. The costs represent an appraisal of actual inital installation costs, custodial maintenance expenses, and removal costs for each material over the product life cycle.

Each of the firms contacted answered questions in those areas they felt qualified to discuss, particularly in relation to costs and usable lives of various floor finish materials. For some materials, the price was developed from Scharf-Godfrey's extensive database used to estimate construction projects, or quotes were obtained from various construction estimating sources.

In all cases, the developed costs reflect high standards for installation and good maintenance practices.

Scharf-Godfrey

Scharf-Godfrey is an independent construction cost consulting organization with no vested interest in ceramic tile or any other floor finish. The study was conducted and this report was prepared by Scharf-Godfrey staff members without special regard to one type of finish over another.

Malini Gupta Glueck, P.E.
President

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Ceramic Tile, the Most Economical of all Floor Finishes

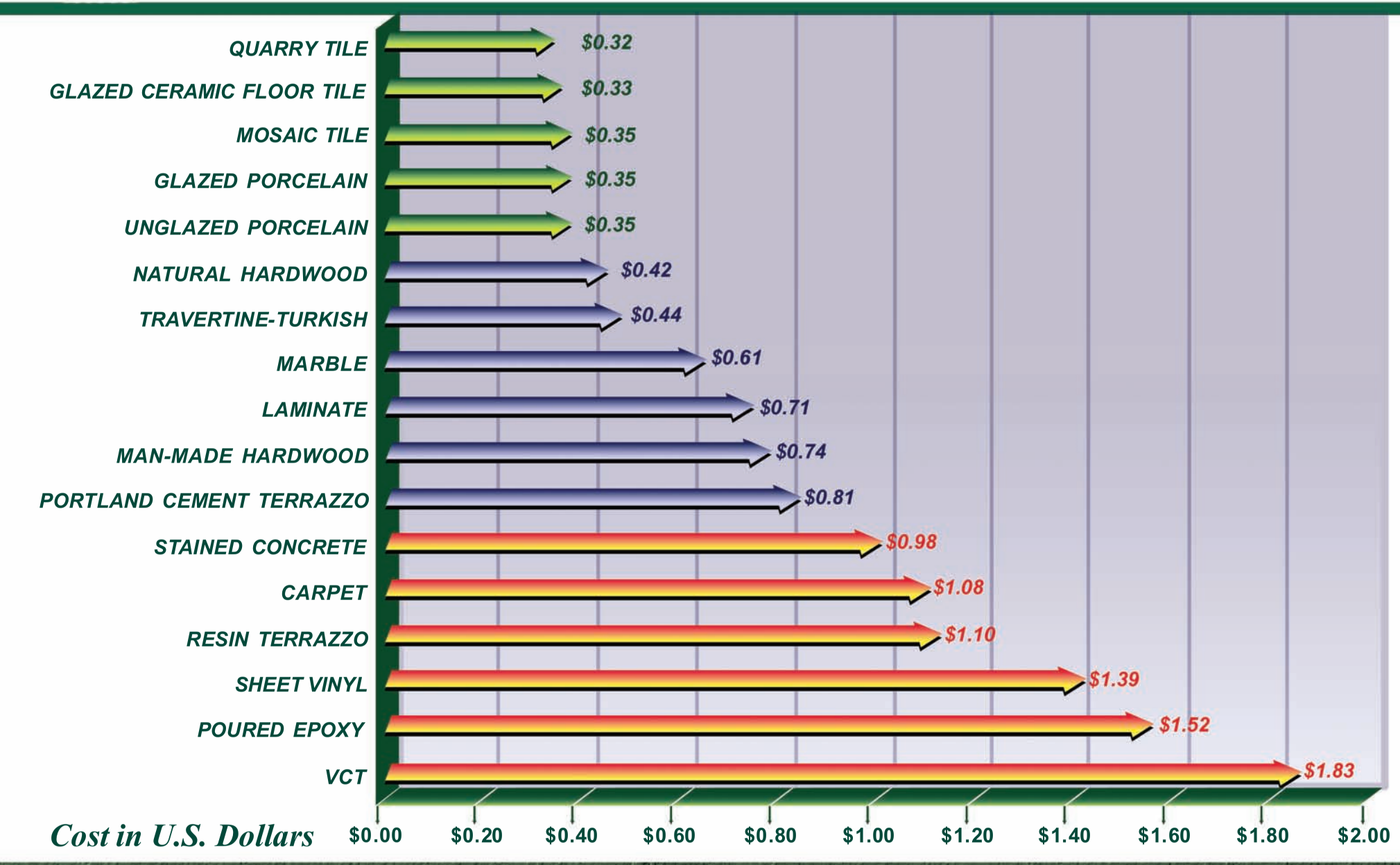
Ceramic tile costs less per year than all other floor finishes over the life of a building. In fact, all tile is less than $0.40 per square foot per year. Carpet and vinyl are significantly more expensive because of their shorter expected lives.

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

***Per square foot**

Floor Coverings Comparison: Life Cycle Cost Per Square Foot Per Year



Floor Coverings Comparison

Why Select Ceramic Tile?

Ceramic tile creates dynamic first impressions. Even a modest area, indoors or out, can come to life with the color and textures you choose – making ceramic tile one of the savviest design investments.

Ceramic tile is not just for bathrooms, kitchens or other wet areas. It gives you the freedom to create a beautiful living or work environment. Here are ten reasons why you should choose ceramic tile for your next decorating project.

Best Value-Ceramic tile lasts practically forever, increases your home's value, needs almost no maintenance, and costs less per square foot than other permanent and long-use flooring options.

Design Versatility-Luxurious and varied textures, finishes, and patterns combined with clear and true colors can inspire even the most modest "stick-figure" artist. Today's selection of tile offers a limitless palette of textures, colors, shapes, and styles to create custom expressions.

Clean & Healthy Choice-Everyone knows ceramic tile is easy to clean and keep clean! It is inhospitable to dust mites, germs, and bacteria.

Durable-Neither rain, nor sleet, nor snow, nor gloom of night, nor scuffs from little kids who sort of forgot to take off their rollerblades can mar ceramic tile's good looks. Ceramic tile, properly selected and installed, has more than nine lives – it will last many lifetimes.

Rich Artistic Heritage-Conveying elegance, tranquility, and spirituality, tile has adorned our great buildings through the ages. You can connect to that cultural heritage through the richness of tile.

Water-Resistance-Ceramic tile is a perfect choice for areas constantly assaulted by wet towels, toy boats, and dripping umbrellas. Not only can installations of ceramic tile be waterproof, some tiles are designed to provide better traction, making ceramic tile a perfect choice for swimming pools, showers, patios, and other wet areas.*

Low Maintenance-No need to worry about muddy paws, spilt milk, and stray chips of hot charcoal. Ceramic tile is practically maintenance-free, as it resists dirt and stains and requires little effort to maintain – just soap and water can thoroughly clean tile surfaces.

Fire-Resistance-When considering the safety of your family and friends, you can rest easy knowing that ceramic tile doesn't burn and give off toxic fumes.

Fade-Resistance-Go ahead, open your blinds and awaken to the touch of sunlight, or watch afternoon rays dance across your living room floor. The color of ceramic tile does not fade in sunlight like the organic dyes used in other floor finishes.

Natural & Environmental-Ceramic tile has the look and feel of something real, solid, and lasting. It's a fired mixture of materials from "Mother Earth".

*Water, oil, grease, etc. create slippery conditions. Floor applications with exposure to these conditions require extra caution in product selection.

Ceramic tile – your number one choice!

Floor Coverings Comparison

Maintenance Cost Chart

Cost Per Sq. Foot	Required Maintenance Expressed in Years** (5 Year Increments)					
Description	**5Yrs.**	**10Yrs.**	**15Yrs.**	**20Yrs.**	**25Yrs.**	**30Yrs.**
Carpet	$ 2.34	$ 0.48*	$0.00	$0.00	$0.00	$0.00
Glazed Ceramic Floor Tile	$ 4.78	$ 4.78	$4.78	$4.78	$4.78	$4.78
Glazed Porcelain	$ 4.78	$ 4.78	$4.78	$4.78	$4.78	$4.78
Laminate	$ 4.68	$ 4.68	$4.68	$4.68	$4.68	$0.00
Man-Made Hardwood	$ 4.68	$ 4.68	$4.68	$4.68	$4.68	$0.00
Marble	$ 4.78	$ 4.78	$4.78	$4.78	$4.78	$4.78
Mosaic Tile	$ 4.78	$ 4.78	$4.78	$4.78	$4.78	$4.78
Natural Hardwood	$ 4.68	$ 7.93	$5.68	$7.93	$4.68	$7.93
Portland Cement Terrazzo	$ 4.78	$ 4.78	$4.78	$4.78	$4.78	$4.78
Poured Epoxy	$ 4.78	$ 4.78	$0.00	$0.00	$0.00	$0.00
Quarry Tile	$ 4.78	$ 4.78	$4.78	$4.78	$4.78	$4.78
Resin Terrazzo	$ 4.78	$ 4.78	$4.78	$0.00	$0.00	$0.00
Sheet Vinyl	$ 4.78	$ 4.78	$0.00	$0.00	$0.00	$0.00
Stained Concrete	$ 6.43	$ 6.43	$6.43	$6.43	$6.43	$0.00
Travertine-Turkish	$ 4.78	$ 4.78	$4.78	$4.78	$4.78	$4.78
Unglazed Porcelain	$ 4.78	$ 4.78	$4.78	$4.78	$4.78	$4.78
VCT	$10.38	$10.38	$0.00	$0.00	$0.00	$0.00

***Reflects 6-year life**
**** Floor coverings listed in alphabetical order**

Cost Per Sq. Foot	Installation Cost Chart**			
Description	**Material Cost**	**Other Costs**	**Installation Labor**	**Total Cost**
Carpet	$ 2.48	$0.00	$0.74	$ 3.22
Glazed Ceramic Floor Tile	$ 3.50	$0.00	$3.50	$ 7.00
Glazed Porcelain	$ 4.65	$0.00	$3.69	$ 8.34
Laminate	$ 3.59	$0.50	$4.75	$ 8.84
Man-Made Hardwood	$ 4.33	$0.50	$4.75	$ 9.58
Marble	$12.00	$0.00	$9.00	$21.00
Mosaic Tile	$ 4.35	$0.00	$3.85	$ 8.20
Natural Hardwood	$ 3.06	$0.25	$6.00	$ 9.31
Portland Cement Terrazzo	$ 6.00	$2.88	$6.00	$14.88
Poured Epoxy	$ 3.00	$0.93	$4.25	$ 8.18
Quarry Tile	$ 3.51	$0.00	$3.32	$ 6.83
Resin Terrazzo	$ 3.50	$0.00	$5.00	$ 8.50
Sheet Vinyl	$ 4.65	$0.00	$2.25	$ 6.90
Stained Concrete	$ 2.25	$0.40	$9.75	$12.40
Travertine-Turkish	$ 9.00	$0.00	$3.50	$12.50
Unglazed Porcelain	$ 4.95	$0.00	$3.35	$ 8.30
VCT	$ 0.99	$0.42	$2.50	$ 3.91

**** Floor coverings listed in alphabetical order**

Tile Council of North America

The Tile Council of North America (TCNA) is a trade association representing manufacturers of ceramic tile, tile installation materials, tile equipment, raw materials, and other tile-related products. Established in 1945 as the Tile Council of America (TCA), the Tile Council has a leadership role in promoting the use of ceramic tile and in developing North American and international industry standards. Additionally, towards the goal of expanding the ceramic tile market in North America, the Tile Council regularly conducts independent research and product testing, works with regulatory and trade agencies, offers professional training, and publishes installation guidelines, tile standards, economic reports, and promotional literature.

For more information regarding the Tile Council of North America, or for links to our members, please visit our web site at **www.tileusa.com.**

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For more than 60 years, the Tile Council has been serving the U.S. ceramic tile market, and, more recently, the Canadian and Mexican markets, as well. Our member companies help sustain the publication of this document and other technical literature – look for the "Member of Tile Council" logo on their products. Visit www.tileusa.com for more member information.

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Dal-Tile Mexico, S.A. de C.V.
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