



The Missing Link...Life Cycle Cost Performance

EnviroGLAS Terrazzo Dazzles the Competition

One of the buzz-phrases in the green building movement is Life Cycle Analysis (LCA). LCA studies the environmental impact of a product from its 'cradle to grave.' How does EnviroGLAS® Terrazzo rate? Since 75% of the product is recycled glass, this stunning application's origins have a significantly positive impact on the environment. Instead of digging up marble or generating synthetics, the majority of the floor is diverted from a landfill. The ability to use glass from local recycling programs means minimal transportation impact and therefore minimal greenhouse gas emissions. The hard and non-porous characteristics of glass, along with the seamless nature of terrazzo discourage bacterial growth, mold and decay. So the 40+ year lifespan of terrazzo beats most widely used interior flooring systems hands down. Terrazzo's minimal maintenance requirements also go easy on the environment. The fact that recycled glass terrazzo can be ground up and reconstituted into a new floor rounds out the EnviroGLAS Terrazzo Life Cycle Analysis on a high note.



EnviroGLAS raw material



Bukhair Elementary in Dallas features EnviroGLAS Terrazzo throughout

So it's green. What's the cost? Construction costs are always an issue, and finishes often are one of the tempting places to try to save money. Yet to focus on installation cost alone can be short-sighted and costly for owners of long-term asset buildings who are responsible for maintenance of those buildings.

Schools, hospitals, airports, libraries and other similar buildings are community icons built to last 40, 60 and even 80 years. Flooring systems with a lower installation cost will have to be replaced multiple times over the lives of these buildings. Consider the price of tearing out exhausted floors and installing new ones, magnified by the disruption of daily business, and the concept of **Life Cycle Costing** quickly comes into focus. Some of the same considerations that give EnviroGLAS Terrazzo its green Life Cycle Analysis – maintenance, durability and life expectancy - also give it a Life Cycle Cost that leaves builders with extra green.

A recent analysis of the average cost of installation, maintenance and replacement costs of various typical finishes used in schools, hospitals, and other institutional facilities demonstrates that over time, epoxy terrazzo emerges as the lower cost flooring application. The added advantages of epoxy terrazzo made with recycled glass make it one of the most logical choices for long-term asset buildings.

Maintenance

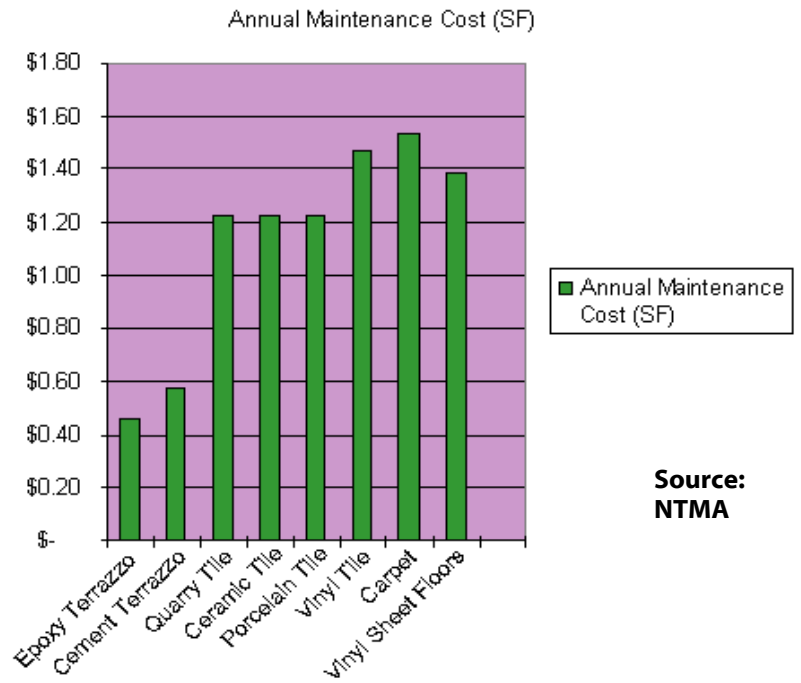
EnviroGLAS Terrazzo requires daily maintenance of only dry mop and weekly buffing, saving water, electricity, person-power, and all the associated costs. Maintenance of extremely high-use areas requires only neutral PH cleaners and water. Waxing of terrazzo is not required, and frankly is discouraged, further reducing cost along with harsh chemicals and waste. The chart below demonstrates that when maintenance is evaluated over the life of a finish, terrazzo comes out ahead. Not into charts? Ask a janitorial service about terrazzo – they will tell you it is the easiest type of floor to maintain.



The high shine on this wax-free EnviroGLAS Terrazzo floor is achieved by buffing alone

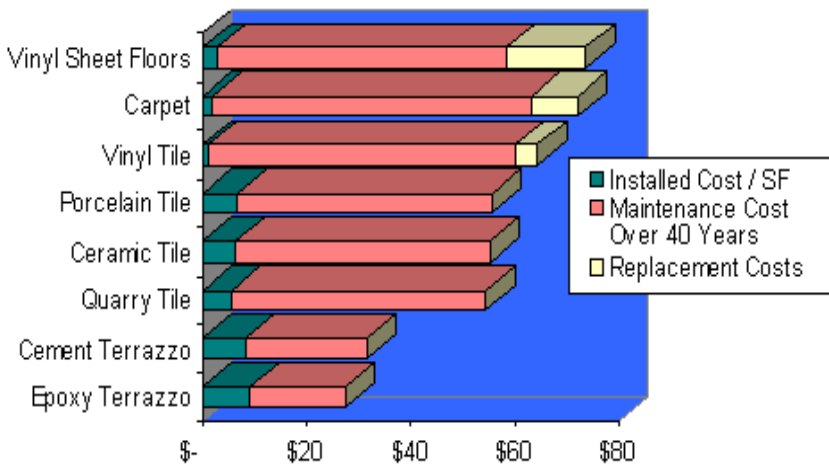
Durability and Life Expectancy

Ceramic, porcelain and quarry tile products offer durability and life expectancies comparable to terrazzo. A costly drawback, though, is the grout joints - a network of channels that invite sanitation problems including microbial growth and cleanser and wax buildup. Tile lippage creates costly safety issues that include tripping and uneven wheelchair and cart rolling, not to mention a significant noise factor. Decayed grout and chipped tile replacement must be considered when evaluating maintenance costs. Floors requiring no replacement clearly are less expensive.



Echoes of “pay now or pay later,” can be heard about 10 years after the installation of most vinyl and carpet finishes. Don’t forget to add in costs of lowered productivity and lost business during remodeling. Another hidden cost of vinyl sheets, tile and carpeting may be increased sick time and insurance claims, and so many forward thinking organizations like Nike, Kaiser Permanente and the State of New York have begun moving away from the use of Poly Vinyl Chloride (PVC).

Combined Graph - Installed, Maintenance and Replacement Costs For Finishes



While many owners continue to focus primarily on installed cost and perhaps on replacement cost values, the chart above shows that maintenance is by far the greatest expense. Thus when all Life Cycle Costs are factored in together over a 40 year period, as in the final chart, the annual cost for epoxy terrazzo is \$.68 / SF. Terrazzo’s Life Cycle Cost makes it the clear choice for beauty, durability and fiscal responsibility for generations to come. EnviroGLAS Terrazzo, with its recycled glass content, is not only beautiful and thrifty but has the important added benefit of being environmentally sound.

