DESIGNING GREEN WITH TERRAZZO

GREENGUARD. LEED. SUSTAINABILITY





WHAT IS LEED?

With the rise of green building projects around the globe, LEED is a green building rating system that credits a building's green features. The design, construction, operations and maintenance of a building has a longterm benefit for people and the environment.

LEED projects earn points for addressing key aspects of a green building including:

- 1) Integrative process
- 2) Location and transportation
- 3) Sustainable sites
- 4) Water Efficiency
- 5) Energy and Atmosphere
- 6) Materials and Resources
- 7) Indoor environmental quality
- 8) Innovation
- 9) Regional priority

Projects are awarded points and are certified on four levels: LEED certified, LEED Silver, LEED Gold and LEED Platinum.

TERRAZZO: THE ORIGINAL GREEN FLOORING

Terrazzo pre-dates many of today's modern flooring systems. With a history dating back to the 15th century, terrazzo is known as one of the first green flooring systems created for its use of recycled materials. Venetian marble workers reused waste from their construction projects to design inexpensive flooring.

Today terrazzo has progressed over the years with epoxy terrazzo widely used in institutional, commercial and industrial projects. Terrazzo floors continues to provide a combination of durability, low maintenance and beauty, making it a great investment for building owners looking for a flooring system that last for decades.

With a focus on the environmental impact of construction materials, the terrazzo industry has experienced a resurgence in recent years. When evaluating terrazzo, architects and general contractors learn that the building material aides in meeting LEED points and other green building standards.



TERRAZZO + LEED CREDITS

MRc1.2 - Building Reuse - Maintain Interior Nonstructural Elements

LEED points may be awarded by re-using a portion of an existing non-structural element, including floors. Terrazzo floors typically last the life of a building structure. Many renovation projects can restore the original terrazzo floor with low-cost repairs and refinishing. By restoring a terrazzo floor instead of replacement, not only does it reduce the overall floor costs but contributes to LEED points.

MRc2 - Construction Waste Management

LEED points may be awarded by recycling or salvaging nonhazardous construction and demolition debris. If a project requires demolition of an existing structure with terrazzo flooring, terrazzo components may be salvaged for reuse or recycled. Those same components can be later installed in a new terrazzo floor, particularly the aggregates. A qualified terrazzo contractor can assist in the salvaging process.

MRc4 - Recycled Content

LEED points may be awarded for using recycled content in a terrazzo floor or other surfaces. Sources of recycled content include post-industrial recycled glass, and also post-industrial recycled stone or marble salvaged from construction buildings and crushed and processed to be used again in a new terrazzo floor. A floor incorporating 100% recycled glass aggregates could contain as much as 75% recycled raw material by volume. Aluminum strips may also contain recycled metal.

MRc5 - Regional Materials

LEED points may be awarded if a portion of the project building materials are extracted, harvested or recovered, as well as manufactured within a 500-mile radius of the project. The calculation is based on the cost of raw materials. Manufacturers supply materials throughout the United States. Materials like marble chips, glass aggregates and cement and epoxy resin are manufactured by terrazzo contractors in every region. For a list of contractors, contact the National Terrazzo and Mosaic Association. Terrazzo can contribute to points if raw material suppliers are located within 500 miles of the project's site.

IEQc4.1 - Low Emitting Materials - Adhesives and Sealants

LEED points may be awarded if the terrazzo installation does not include adhesives and sealants that contain Volatile Organic Compounds (VOCs) in excess of certain amounts. Both cement and epoxy terrazzo contains zero VOCs. Many of today's epoxy resin supplier use a 100% solids formula, eliminating any VOCs in the material. Certification of compliance can be obtained from epoxy resin manufacturers.

IEQc4.3 - Low Emitting Materials - Flooring Systems

LEED points can be awarded if sealers do not contain VOCs in excess limits. Sealers used in terrazzo floors will generally comply. For schools, flooring elements must meet the testing and product requirements of the California Department of Health Services Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers, including 2004 Addenda. Generally, epoxy terrazzo products will comply.

IDc1 - Innovation in Design

Additional LEED points may be awarded under the Innovation in Design category in innovative performance in categories not specifically addressed by LEED or for achieving exemplary performance in an established LEED credit.



GREENGUARD

GREENGUARD certification is recognized and reference in building programs, standards and specifications around the world, helping architects and designers obtain points in established green building rating systems.

Products that are GREENGUARD or GREENGUARD Gold certified supports their usage for designing indoor spaces that meet strict chemical emission limits. As a result, GREENGUARD certified products contribute to healthier indoor spaces.

GREENGUARD Gold was formerly known as GREENGUARD Children and Schools, with products targeting environments where individuals mainly children and sensitive adults spend extended periods of a time in a facility. Recommended in school and healthcare facilities.

AN OVERVIEW OF INDOOR AIR QUALITY

Studies have indicated that indoor air quality is at times 2 to 5 times more polluted, even 100 times more polluted than outdoor air. These pollutants often come from everyday products and materials.

Selecting building products is important in improving indoor air quality for schools, workspaces and even in our homes. In fact people spend 90% of the time indoors. With poor quality air, people are exposed to hazardous pollutants which can have adverse effects on their health.

One of the primary sources for chemical exposure comes from products used to design interior environments. There are building products that emit Volatile Organic Compounds (VOCs) through the air. These products are harmful to the environment and people's health.

Other causes for indoor air pollution are mold, dirt and debris, and poorly ventilated buildings.

TERRAZZO + INDOOR AIR QUALITY

Thin set epoxy terrazzo systems have zero VOCs. Because terrazzo emits little to no off-gassing over the lifespan of the surface, it is often used today in schools, hospitals, office buildings and other places where good indoor air quality is desirable.

Terrazzo floors are also non-porous and easy to clean. A terrazzo floor does not allow bacteria, mold or mildew to accumulate. As a result, a mold-free environment aides in improving overall indoor air quality as well.

GREENGUARD + TERRAZZCO

TERRAZZCO Brand Products is a leading terrazzo manufacturer of green terrazzo materials. Environmental responsibility is part of our company charter; therefore, we are proud to be the first terrazzo manufacturer to obtain GREENGUARD and GREENGUARD Gold certification in 2018.

Our epoxy resins contains zero VOCs thus helping architects specify TERRAZZCO materials to contribute to healthier indoor environments.



3 WAYS TERRAZZCO CAN MEET SUSTAINABLE DESIGN GOALS



RECYCLED CONTENT

TERRAZZCO carries recycled aggregates and divider strips, two common sources of recycled content used in terrazzo flooring.



ZERO VOCS

TERRAZZCO products have zero VOCs satisfying LEED, FloorScore and GREENGUARD regulations.



REGIONAL SOURCING

Terrazzo minimizes postindustrial commercial waste and transportation costs when supplied within 500 miles.

ABOUT CONCORD TERRAZZO COMPANY, INC.

Terrazzo has been valued for its low maintenance, durability, beautiful designs, and improved air quality. Concord Terrazzo Company, Inc. is located in Charlotte, North Carolina where our are a single-source supplier of terrazzo materials for construction building projects, distributing epoxy resins, precast terrazzo and recycled aggregates.

With TERRAZZCO Brand Products, Concord Terrazzo Company is able to assist architects and contractors in finding the right selection of materials to design a project aimed at maximizing LEED credits.



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A leading manufacturer in green terrazzo



