

# POLISHED CONCRETE FLOORS ARE ALWAYS GREEN

Concrete floors have become popular in both residential and commercial buildings. Its unique and natural beauty can be brought to life with different finishing and color techniques. Concrete floors can make a fashion statement or harmonize with other building materials. It's versatile, cost-effective, durable, eco-friendly and easy to clean.

Concrete is one of the most durable materials on earth. When concrete floors are properly maintained, they should last a lifetime. Concrete floors can out last most other floor covering materials. Even through other floor coverings may be initially cheaper than decorative concrete, overall cost to install, maintain and clean concrete floors is considerable less.

Concrete floors are a healthy alternative flooring for those with allergies. It helps reduce allergens because they do not trap dirt, harbor dust mites and other allergens. Concrete floors do not support the growth of toxic mold. The surface is easy to clean with periodic damp mopping.

Polished concrete floors lighten the environmental footprint for LEED projects. It can earn between 19 and 28 points toward LEED credits in the following areas:

**Construction IAQ Management Plan (Before Occupancy): EQ Credit 3.1**  
*Prevent indoor air quality problems*



Polished concrete is as hard as Granite, reflects light well and is easily maintained.

*resulting from the construction or renovation process, to sustain long-term installer and occupant health and comfort.*• The “dry-grind” process we use to polish concrete floors is considered eco-friendly when a state-of-the-art dust extraction system with textile socks and Hepa filters are used. 98% of the dust is contained in our continuous bagging system.

### **Optimized Energy: The Energy Performance Credit 1**

*Achieve increasing levels of energy performance above the prerequisite standard to reduce environmental impacts associated with excessive energy use.\** The thermal mass of concrete floors can reduce the cooling and heating loads within a building. Additional energy can be saved due to the 85% light reflectivity this allows for less light fixtures because of the floor's

high gloss resulting in more light reflectivity. Polished concrete adds to the brightness of natural light.

When a radiant heating system is added to a concrete slab it optimizes energy performance by utilizing the concrete slab for its thermal properties. This is done during a new pour, by placing the radiant heating system in first and pouring the new concrete around it.

**Building Reuse: Reusing existing building's structural and interior elements LEED credits 1.1, 1.2, 1.3**  
*Extend the life cycle of existing building stock, conserve resources, retain cultural resources, reduce waste, and reduce environmental impacts of new buildings as they relate to materials, manufacturing and transport.\**

A polished concrete floor qualifies for reuse of interior elements.

**Low-Emitting Materials (Paints & Coatings): EQ Credit 4.2**

*Reduce the quantity of indoor air contaminants that are odorous or potentially irritating to provide installer and occupant health and comfort.* \* This requires materials used such as adhesives, sealants, paints, coatings, etc to meet or exceed VOC limits. The densifier used on polished concrete contains no solvents, therefore qualifies for Credit 4.2

**Flooring Systems: EQ Credit 4.3**

Concrete finished floor reduces the quantity of indoor air contaminants that are odorous, irritating and harmful to occupants of a building. It is a good choice for allergy relief because concrete does not hold dust, mold, dust mites or pollens compared to carpet. Therefore it can qualify for up to 4 points and complies with the requirements of South Coast Air Quality Management District (SCAQMD) Rule #1113.

**Other Possible Innovation Credits:**

**Recycled Content: Credit 4**

*Increase demand for building products that have incorporated recycled content materials, therefore reducing the impacts resulting from the extraction of new materials.* \* The addition of fly ash to concrete is considered to be green practice because its use recycles the ash.

**Local/Regional Materials: Credit 5**

*Increase demand for building products that are manufactured locally, thereby reducing the environmental impacts resulting from their transportation and*

*supporting the local economy.\** Purchasing materials locally (with in a 50 mile radius) such as densifiers, concrete mix, etc can also add credit points for green building.

Although there are many flooring options that are initially cheaper than concrete, when you amortize the cost of a concrete floor over its lifetime, the price can be comparable or even lower than other high-end flooring materials. Keep in mind that concrete floors rarely need replacement and can last a lifetime. Studies have shown a 65% savings of maintenance cost compared to other floor covering. It is also easier to clean than other floor coverings. No harsh chemicals are needed to clean concrete surfaces, so eco-friendly cleaning products can be used.

Creativity can be unlimited when it comes to decorative concrete floor design.



**Polished Concrete versus Other Flooring Materials**

- Unlimited design options
- Longevity and performance
- Ease of maintenance
- Can radiate heat & store solar energy
- Vulnerable to humidity and moisture damage
- Can harbor mold, mildew, dust mites and other allergens
- Is a sustainable flooring alternative
- Extremely low average lifecycle cost

\* U.S. Green Building Council's LEED Rating System guide from [www.usgbc.org](http://www.usgbc.org) website.



Concrete Repair Specialist, LLC

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