



Making Concrete Better

Polished Concrete, Lythic Solutions and LEED Points

rev 2012/11

The US Green Building Council and its Leadership in Energy and Environmental Design (LEED®) rating system, has provided architects, contractors, and materials producers a standard by which to measure their green performance and environmental impact. As the need for greener building practices rises, so too has the demand for polished concrete.

Lythic Solutions' products for concrete are engineered to promote the clean and efficient application of polished concrete. Lythic and polished concrete may qualify for LEED® credits listed below.

SS Credit 7.1: Heat Island Effect: Non-Roof

Light reflective concrete will reduce the heat-island effect, meaning the difference in temperatures between the development and the surrounding environment is less.

EA Credit 1: Optimize Energy Performance

Using the building's concrete will help stabilize the heating requirements because concrete will store energy as a thermal mass.

Exposed concrete as a floor finish will reduce the costs associated with life-cycle maintenance of other flooring options, thus reducing the overall energy used.

Light reflective concrete will reduce the amount of energy required to light the building.

MR Credit 1.1 & 1.2: Building Reuse

Using a building's existing concrete will help conserve resources and reduce the waste associated with new constructing and removal of existing surface. Using the existing materials extends the life-span of the original building while diverting materials from landfills.

EQ Credit 3.2: Construction IAQ Management Plan: Before Occupancy

Polished concrete minimizes the surface area where dust, pollutants, and other volatile organic components (VOCs) can be trapped, facilitating the building flush-out process. In addition, Lythic Densifiers contributes zero VOCs, making it easier to meet air testing requirements.

EQ Credit 4.1: Low-Emitting Materials: Adhesives & Sealants

Using concrete as a floor finish reduces or eliminates the need for adhesives and sealants, which often contain high levels of irritating fumes or VOCs.

EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings

With polished concrete, many high VOC containing paints and coatings are not necessary. When sealing or treating concrete, use low VOC containing materials. Both Lythic Protector and SPD Protector contain very low levels of VOCs.

References:

LEED® for New Construction & Major Renovations, Version 2.2
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EQ Credit 5: Indoor Chemical & Pollutant Source Control

This credit is designed to address the sources of contaminants as well as providing a recommendation for entryway designs. Using polished concrete will reduce the presence of chemical pollutants that would be tracked into a building and trapped by carpet covering. The surface itself would also not be a source of pollutants, as it would contain no carpet or tile adhesive.

EQ Credit 6.1: Controllability of Systems: Lighting

Light reflective concrete will provide natural light deeper into the building structure. The presence of natural light will also decrease the dependence on artificial light sources promoting the comfort of the building occupants.

EQ Credit 7.1: Thermal Comfort: Design

Using concrete as a thermal mass may help provide a comfortable thermal environment by stabilizing the heating/cooling requirements of the building and its occupants.

EQ Credit 8.1 & 8.2: Daylight & Views:

Light reflective concrete will contribute to the presence of daylight throughout the building providing the building occupants a connection between indoor spaces and the outdoors.

ID Credit 1-1.4: Innovation in Design

Possible Innovation Credits

Lythic Densifier has several advantages that could be included in an application for innovation credits:

- Ease of application providing for reduced labor and related energy expenses
- Reduced jobsite waste
- Does not produce caustic residue needing disposal
- Transportation-related energy consumption reduced by shipping as concentrate

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